Sarajevo 2000:

the psychosocial consequences of war

Results of empirical research from the territory of former Yugoslavia

Presentations from a Symposium
held at the Faculty of Philosophy in Sarajevo,
July 7 and 8, 2000.

Editors:

Steve Powell
Elvira Durakovic-Belko

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Translations

Aida Gadžo and Lejla Efendić

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Forewords

Prof. Dr. Willi Butollo

Threatening life events shatter peoples' selves, weakening their sense of connectedness, stability of perception and values, along with many other responses. In a way, this also holds true for us psychologists: just like our clients, we experience threat, loss and a shaken sense of security with respect to our professional life.

And as is the case for all human beings, it is helpful if we as psychologists remind ourselves to start again as soon as possible to communicate across newly emerging or re-emerging borders.

It helps to start with facts, or what we believe to be facts. Consequently, we expected that the results of our research would help to assist psychologists to make a start in communicating again across former frontlines, even though these results deal with the impact of war activities on psychological processes. We found out that our colleagues in most countries in Southeast-Europe are also eager to join in such an exchange, contributing their own results and, perhaps later, their experiences. As the team of the Department Psychology at Munich Ludwig-Maximilians-University, we are happy to serve as a kind of catalyst for those evolving contacts. We hope this seed will grow further during the next few years.

Willi Butollo is Professor of Clinical Psychology and Psychotherapy, Ludwig-Maximilians University in Munich, Germany.

Prof. Dr. Ismet Dizdarević

The scientific treatment of war-related trauma

The process and result of the international symposium "Psychosocial consequences of war" – the scientific statements and discussions, stimulating posters, spontaneous dialogs and other forms of activities involving experts for psychological, psychosocial and psychiatric affects of the war – was of great value for the theory and practice of trauma psychology. Based on the results of empirical research, experts from different countries of Southeast Europe presented their opinions about the psychological effects of the war that occurred in the last decade of the 20th century within the territory of former Yugoslavia. Although their presentations differed in methodological approach, theoretical background, and especially in the interpretation of the obtained results, they were nevertheless connected in one particular way: all the presentations focused on the effects of war atrocities.

Through the conception, design and execution of the two-day symposium the Organizational and Scientific Boards attempted to enable every participant to present the results of their research in the most appropriate manner and to give them the opportunity to confirm or modify their opinions through direct dialog with other participants. The democratic and professionally tolerant atmosphere that crystallised

during the course of the gathering contributed significantly not only to the successful presentation of the individual papers but also to a constructive synthesis of the various opinions on a new area of trauma psychology, the multidimensional and scientific treatment of mass war trauma. In the final discussion, all the participants of the Symposium concluded unanimously that the Symposium was extremely successful and resulted in very fruitful scientific and professional results.

The successful realization of the Symposium, which was the result of a long-term and fruitful cooperation between the Institute for Psychology of the Ludwig-Maximilians University in Munich and the Department of Psychology at Sarajevo University was due not only to the dynamic and flexible activities of the Organizational and Scientific Board but also to the very active participation of students, lecturers and professors. They all provided a very significant contribution to the success of the Symposium.

Ismet Dizdarević is Professor of Psychology at the Department of Psychology, University of Sarajevo, Bosnia and Herzegovina.

About this book

On July 7 and 8, 2000, a *Symposium on the Psychosocial Consequences of War* was held at the Faculty of Philosophy in Sarajevo. The main aim of the Symposium was to try to answer important questions about the consequences of war in the light of empirical research done during and after the wars in former Yugoslavia.

The Symposium was organised by the Department of Psychology, University of Sarajevo and the Department of Clinical Psychology, Ludwig-Maximilians-University in Munich (LMU). It was open to all local and international researchers, academics, students and practitioners. About 200 people from all over the region attended, alongside about 20 from outside. About 65 oral and poster presentations were made. This was one of the very first occasions on which academics and practitioners from the whole region of former Yugoslavia had met for a scientific conference since the war.

The effects of war on a civilian population in general and children in particular have never been so intensively studied as in the republics of former Yugoslavia since the violence which began in 1991.

Information was accumulated of potentially great importance for program designers, practitioners, scientists, and, directly and indirectly, beneficiaries and the general public.

However, because of the extremely difficult circumstances of war, this work could not always be carried out in the usual scientific context of planned research programs with results published in national and international journals. This means that the lessons learned have often not yet been made fully available to potential users in the area of former Yugoslavia or outside.

Thus, occasions such as the Symposium present great potential for increasing and improving the published store of knowledge on this, tragically, important area of science.

When circulating the call for papers for the Symposium, we did this in a way which, we hoped, would result in submissions which were typical of the best empirical research carried out in the area. We contacted first and foremost departments of psychology throughout the region, together with the major implementers of psychosocial programs. We also invited a number of experts from abroad who had been involved in projects in the region.

More information about the Symposium and other related activities can be found at our website http://www.psih.org where you can find interactive resources for psychology in Bosnian, Croatian and Serbian.

On the one hand, we were looking

for quality; on the other hand, we were also interested in assembling something like a typical selection, to record examples of the kind of research actually carried out in a war and post-war context.

The short abstracts were then submitted to anonymous peer review by our scientific committee, and those with the highest ratings were invited to present at the Symposium. All of those who were invited to present - including a few who did not actually attend the Symposium for one reason or another - were then at the end of 2000 again asked to submit a longer contribution to the present book. In most cases, we accepted the submission with at most a few small changes; in some cases, we cut the submission substantially, or decided to print the original, short abstract. In a few cases, the authors were given permission to change the topic slightly to reflect new developments in their work, or to change the order of the authors, etc.

A companion volume in Bosnian, Serbian and Croatian accompanies this English-language volume.

The main aim of the present book is to make the research presented at the Symposium open to a wider readership around the whole world, summarising some of the work done in the context of the war on the territory of former Yugoslavia, providing a compact source of information for practitioners as well as academics and students. The contributions are intended to be relevant not only in the context of the war in the area of former Yugoslavia, but also to other conflicts elsewhere and their consequences. For these reasons, the contributors were asked to pay special attention to the results section of their contributions. As treatment is intrinsically difficult to research, there are fewer treatment-related studies (although we also included a few contributions which are primarily descriptions of treatment programs, rather than presentations of research results).

The contributions are divided into two main sections: adults and children/adolescents, preceded by two invited synopsis papers written by Prof. Dr. Renko Đapić and Dr. Maria Gavranidou respectively.

Although the range of contributions presented was indeed wide, it over- or under-represents the entirety of research carried out in the area in a number of ways. Firstly, there are only a handful of papers from Croatia and Slovenia. One reason for this is that psychologists in those countries had already had more opportunity to present and publish their work than in Bosnia-Herzegovina (B&H). On the other hand, a large number of colleagues came to Sarajevo from Serbia to present their work, having had less opportunity to present their work to an international audience due to the relative isolation of Serbia.

A principle which we adopted right at the start of the planning was that this Symposium was to have and maintain a scientific focus and that we would not let ourselves be distracted by political arguments. We certainly did not want to get into a position

of encouraging a competition about who had suffered the most. For this reason, we decided to include papers from the war in B&H and Croatia and papers on the consequences of the NATO bombings of Serbia in 1999 alongside one another. It is clear that the bombings represented a serious traumatic stressor, especially when compared with the kind of stressor central to most studies on traumatic stress in the West. Finally, unfortunately we were not able to include any contributions from Kosovo.

An immediate consequence of the contacts made and renewed at and subsequent to the Symposium between the Departments of Psychology in Zagreb, Rijeka, Banja Luka, Sarajevo, Belgrade, Novi Sad and Prishtina was the initiation of CLIPSEE (Clinical Psychology at South-East European Universities - Capacity Building Network) in conjunction with the LMU and funded by the *Deutscher Akademischer Austauschdienst*, the German Academic Exchange Service.

More information about CLIPSEE can be found at our website http://www.psih.org. Our newest project is the publication of a textbook of clinical psychology in Bosnian and edited by Profs. Biro and Butollo.

Thanks and dedication

Over half the contributions at the Symposium directly concerned children and young people, and many of them were based on work which was funded by UNICEF. This was one of the reasons why UNICEF generously agreed to cover the considerable costs of providing simultaneous translation throughout the Symposium. It also explains UNICEF's interest in seeing the presentations published, and hence their funding of the present book. The editors are very grateful for this assistance.

The larger part of the funding for the Symposium was provided by the DAAD (*Deutscher Akademischer Austauschdienst*, the German Academic Exchange Service), covering travel and accommodation costs for the many participants from outside Sarajevo and outside Bosnia-Herzegovina. We are extremely grateful for this help and for other help extended by the DAAD for this kind of cooperation since 1995 until the present day.

A large number of other individuals and organisations also played an important role in the success of the Symposium, to whom we express our sincere thanks, amongst them:

the Faculty of Philosophy in Sarajevo, which supported the project from its inception and allowed its building to be overrun by psychosocial professionals for two days;

the Volkswagen-Stiftung, which has funded projects of the LMU in Sarajevo since 1997;

the scientific committee (Marina Ajduković, Mary Black, Renko Đapić, Ksenija Kondić, Chris Layne, Rita Rosner and Rune Stuvland) who made the original selection of presentations for the Symposium;

all the contributors and the many thousands of people who were involved in their research;

all those who helped ensure that the Symposium ran as smoothly as it did, in particular Elma Pašić, Josip Tvrtković and Edin Tanović together with dozens of students of the Department of Psychology in Sarajevo, who gave up their time to help with translation, reception duties, etc.

all those who helped with the translation and production of this book, especially Ema Kapetanović who spent hundreds of hours working on these pages;

and last but not least our spouses Anamaria and Fadil.

This book is dedicated to our parents.

Steve Powell and Elvira Duraković-Belko, on behalf of themselves and the Department of Psychology in Sarajevo and the Chair of Clinical Psychology and Psychotherapy in Munich.

Sarajevo, 2002.

Introduction

Will traumatic stress reactions continue to be an issue in the future?

Elvira Duraković-Belko

When Steve suggested to me that we prepare a book collecting together the presentations which were made at the Symposium, I thought, looking forward to doing something together and without thinking too much about it, “what a good opportunity for us”. Reading and editing carefully each of the papers I realised that this book is indeed an opportunity, but for other, more important things. First and foremost, in a particular way, it is a reward for those contributors who, often under terribly difficult and dangerous conditions during and after the war, showed above all human courage but also a sense of professional responsibility in their preparedness to educate (themselves), to help others, to do research etc., and who at that time did not have the chance to publish and present what they had learned. Apart from that, this book is an opportunity to present in one place a more or less representative and systematic overview of the research carried out in the region, a summary of everything that has been learned about the complex dynamic of traumatic stress and the responses of individuals to (specific) traumatic war events.

In any case, fortunately and unfortunately, it seems that we have learned a lot about (war) traumas and posttraumatic recovery. Even though people in our region, as elsewhere, have always had traumatic experiences, it seems that the issue of traumatic stress did not receive much attention here before the war. Professionals in the region often say that before the war they had never heard of the later very popular and often misused concept of “PTSD” and that they never dreamed that one day they would specialise and accumulate considerable experience in it. The most attention was understandably directed to the specific aspects of traumatic *war* events which tended to be cumulative, continual and multiple. In spite of that, at the end it seems that more light was cast on the effects of traumatic stress in general. It is possible that the very “popularity” of war trauma helped to loosen the taboos surrounding other traumatic events which also take place in peacetime such as sexual violence and other forms of abuse in the family and the wider community. Apart from that, it is possible that our profession would not have been so easily and quickly accepted in the region if psychologists and other professionals working in mental health had not been so quickly on the scene with crisis interventions, psychosocial support programs, therapy for people suffering from posttraumatic stress reactions, etc.

Even so, when the general population or even professionals today hear the word “trauma”, the response is often: we have had enough of that, we are tired of trauma, it isn’t up-to-date any more and we are fed up with researching it, surely there are other things to think about, etc. Knowledge about the transgenerational transmission

of trauma, delayed reactions, the effect of traumatic reminders and other factors and risk mechanisms for the development of psychopathology suggest that war trauma (and the same goes for pre-war and post-war trauma!) will have to remain topical for the next few decades in clinical and other areas of psychology and medicine. Because, as we have learned only too well, it is a complex interaction of many factors and mechanisms that decides whether one develops psychological or somatic disorders or not. Underestimating or ignoring the effect of traumatic war events as risk factors may therefore turn out to be a big mistake.

The "psychosocial approach" to the consequences of war: a critical essay

Steve Powell

The research in this book attempts to outline the "*psychosocial* consequences of war". Moreover, most of the intervention programs mentioned in this research describe themselves as "*psychosocial*". In place of an introduction, therefore, this short essay attempts a critical outline of this notion of "psychosocial".

The problem

Altogether, hundreds of thousands people died in the conflicts in former Yugoslavia between 1991 and 1999, over 200,000 in Bosnia-Herzegovina (B&H) alone (ICRC, 1999). This means that just about everybody in B&H and very many people outside it lost at least one family member. According to the B&H Helsinki Committee for Human Rights (2002), "seven years after the end of the 1992-1995 war, over one million B&H citizens are still not in their pre-war homes, of whom (…) about 500,000 have the status of displaced people". Many of these people are still housed in collective centres and camps or are crowded in the homes of families and friends. Nearly everybody suffered loss of property, working in a job below their qualifications, or unemployment. About 300,000 people from Bosnia and Herzegovina still live as refugees outside the country. In addition, a large proportion of the population endured extreme hardship during the war and were exposed to, or witnessed others being exposed to, very traumatic events, such as torture or wounding.

The professional situation

Taken together, these facts suggest that a large proportion of the population was exposed to severe challenges to its mental health and psychosocial functioning. Every time that local and international governmental and nongovernmental organisations try to respond to protect populations from the indirect effects of terrible events like these, they look to disciplines such as medicine, social work and psychology for assistance. These organisations are seeking not only abstract models of how to help, but also, more concretely, professionals from the various disciplines to design, run and implement programs. In the case of former Yugoslavia, there were only a limited number of professionals with this kind of expertise compared to the size of

the increased need due to the war, mainly concentrated in Belgrade, Zagreb and Ljubljana.

The splintering of a single federal state into a number of smaller states meant that academic and professional excellence in the relevant disciplines was rather fragmented. The department of psychology at Sarajevo University, for instance, was only formed just before the start of the war and that in Banja Luka was only founded in 1994. There were considerably more psychologists working in Croatia and Serbia, and some of them formed their own organisations for implementing and evaluating psychosocial programs. However, the increasing isolation of Serbia until 2000 meant that Serbian psychosocial professionals found themselves working with less and less support from outside organisations.

Many psychologists and members of other groups of professionals (for example, "psycho-pedagogues") were prepared and able to go through additional relevant training, mostly of a rather ad-hoc nature, especially at the beginning of the war. This additional training has in some cases led to disputes about expertise between the professional groups in the post-war context. However, a great deal of additional help was also provided by lay people with little or no previous relevant training, many of whom also took part in some of these more or less ad-hoc training workshops as time went by. In many places, such as Sarajevo, providing any kind of assistance was difficult or dangerous due to war conditions - military action, sniper fire, lack of heating or electricity, shortage of food or water. Wherever it took place, providing relief from inner suffering meant doing pioneering work, creating awareness amongst the general public while trying to develop a method of work and model of support for oneself. Often the staff were overwhelmed by the imbalance between the extent of the need for support amongst their clientele on the one hand, and their own limited resources on the other. Their courage, determination and selflessness must not be forgotten. Moreover, it is important that the vast amount of experience that they gained should be integrated into both improving academic models on the one hand, and the training of new generations of professionals on the other, both in the region and beyond it.

The response: the psychosocial approach

For a number of reasons - not least of them the commitment of psychologist Rune Stuvland, who began his activities with UNICEF in the region in 1992, the activities of local and international organisations in the territory of former Yugoslavia had an unusually strong input from psychosocial disciplines in general, and psychology in particular, in comparison with the approaches adopted after previous wars and disasters which tended to be dominated by the medical sciences.

The best-developed and most influential model of human suffering is *the medical model*, which has also had a powerful influence on psychology. The medical model focuses on the suffering of particular individuals, manifested as pathology. The factors directly explaining the suffering, and which should be addressed to alleviate that suffering, are located within the physical body of the person. Thus healing requires above all somatic, e.g. pharmaceutical, intervention.

Psychology, especially clinical and health psychology, extends the medical model by what we can call the psychological model. This retains the existing definition of suffering but locates within the mind rather than the body of the suffering individual additional factors directly causing that suffering. This model as implemented in the region firstly implies increasing the use of psychological concepts such as posttraumatic stress, secondly emphasises the need for psychological, usually questionnaire-based, assessment and evaluation preceding and accompanying intervention, and finally and above all stresses the importance of counselling and psychotherapeutic interventions addressing the emotional, cognitive and behavioural processes directly responsible for suffering. These interventions are ideally carried out by trained psychotherapists receiving adequate supervision.

Nearly all programs in the region and most of those mentioned in this book acknowledged, at least on paper, that medical and psychological models and individual pharmaceutical and psychological therapy were still not enough. Following common practice in the rest of the world, they moved on to adopt what we will call here “the *psychosocial* approach”. “Psychosocial” has come to completely eclipse “psychological” in the collective thinking of the United Nations agencies on war and disaster. For instance, in a recent UNICEF report on the impact of armed conflict on children (Machel, 2000), the word “psychological” appears only once not immediately juxtaposed with the word “social”.

"Psychosocial" became a by-word. For a time it seemed that everything anyone ever did had to be accompanied by a "psychosocial program". A handbook of psychosocial projects in Croatia and Bosnia and Herzegovina in 1995 lists 216 separate programs (Agger, 1995). Even now, in the ICVA Handbook for Bosnia and Herzegovina of humanitarian and developmental agencies, approximately half of 300 organisations include "psychosocial" in the description of their activities (ICVA; 1999).

However, to date, this special "psychosocial" approach has rarely been documented in a way which makes its special characteristics and results available for comparative analysis. So the Sarajevo Symposium and the present book provide an opportunity for this kind of reflection.

What is, then, the "psychosocial approach"? How does it go beyond the medical model?

The psychosocial approach identifies the “owners” of the suffering caused by war and disaster as both individuals and social groups, e.g. families and communities, simultaneously. This implies that not only individuals, but also social groups should be addressed as the recipients of support (Weine, 2000). Secondly, it stresses that the factors responsible for suffering and its prevention and healing are both psychological and social, and that these factors interact (Machel, 2000). So for example, both the concrete loss of the workplace and one’s cognitions about that loss can, separately and together, contribute to suffering. Consequently, both psychotherapy addressing negative cognitions, but also a community program to create jobs or at least meaningful activities, especially when planned and implemented together, could be defined as psychosocial interventions.

One problem with the ambitious nature of these definitions is that they are too wide: they leave open the question of whether the systematic attempt to rebuild a damaged economic infrastructure could or should also be defined as a psychosocial intervention.

What this meant concretely in the region was at the very least the attempt to address the wider social environment surrounding the suffering individual. In the case of needs assessment, the psychosocial approach to individual support meant taking note not only of individual psychological factors but also the broader context within which the beneficiaries - individuals, families and communities - were living.

Another aspect often associated with "the psychosocial approach" although compatible with a purely psychological method is shifting the aim of intervention from direct relief of symptoms towards strengthening individual coping mechanisms on the one hand and longer-term prevention on the other. Many of the programs implemented in the region included this aspect.

Group counselling and support work became very popular in the region, not only because they are more economical than individual therapy, but also because these modes of intervention address interpersonal as well as intrapsychic functioning, and in some cases make direct contact with the social networks surrounding individuals. These features make group interventions popular elements of the psychosocial approach.

The provision of therapy, whether for individuals or in groups, tends to address those individuals who are the most distressed and who identify with the role of patient (Weine, 2000). The majority of people are much less comfortable with a patient role and are unlikely to conceive of themselves as needing help, even when suffering immense psychological pain. This realisation led in a few cases to the attempt to integrate interventions broadly based on psychotherapeutic models inside more general activities designed to address basic social or material needs or strengthening of family and/or community links. So the "psychosocial approach" also meant trying to address potential recipients without using the concept of illness or the patient role. School-based programs are a good example of ways to address the needs of larger communities in this way, reaching not only the pupils but also potentially their parents.

Criticisms of the psychosocial approach as implemented

However, the psychosocial approach as implemented in the region can be criticised on a number of counts, many of which apply, unfortunately, to some of the papers in the present book.

- Failure to implement

In practice, of course, many or most of the features of the psychosocial approach were never fully implemented. For example, psychological needs assessment, where it took place at all, was often limited to the administration of psychological questionnaires to individuals designed to assess, above all, posttraumatic symptomatology. Interventions often had to be administered by untrained lay people who

were not adequately supervised. Evaluation of the effectiveness of programs was often not carried out, and where it was there were no resources to act on the lessons learned. Above all, the social features of the psychosocial approach often remained mere phrases.

- Use of unproven interventions

The effectiveness of the interventions used in the region, although nominally based on psychological theory, is largely unproven, at least in a way which would satisfy the stringent standards of a respectable psychological journal. A lot of work still needs to be done in this area. Even the basic issue of whether interventions encouraging individuals to "re-express" feelings associated with traumatic events are helpful or perhaps even harmful has not been definitively settled even in the case of the kind of traumatic events and clientele typical in America and Western Europe, let alone for the populations in the territory of former Yugoslavia after the recent war.

- Is everybody traumatized?

A well-known UNICEF report "The state of the world's children" (UNICEF1996a) claims that "time does not heal trauma". This kind of claim is often made and generalised by proponents of the psychosocial approach. There has also been some criticism, notably by Summerfield (1996), of exaggerated assessment of damage. Here follow some words of caution about "trauma".

- One cardinal sin is to use the words "trauma" or "traumatisation" without distinguishing between exposure to traumatic events and significant damage to psychosocial functioning. There is no inevitable path from the former to the latter. The explicit or implicit suggestion that there is such a path can lead to the use of illness labels for individuals who have experienced terrible events without reference to their actual psychological well-being. Some people survive terrible events without any major challenge to their psychological well-being.
- The experience of war can indeed lead to long-term psychological damage identifiable decades (e.g. Mooren, 2001) or even generations later, but this need not be the case. Many people recover spontaneously from even severe posttraumatic stress disorder.
- An excessive focus on PTSD as a consequence of war can obscure the presence of other problems such as depression and abuse of alcohol and sedatives.
- Reliable and valid criteria are needed to distinguish between genuine psychopathology and perhaps transient or clinically and subjectively insignificantly raised levels of symptoms. Merely reporting that subjects scored a "high" level on some scale of symptoms may pathologise both individuals and populations unnecessarily. The exclusive use of mean scores for population subgroups can also suggest that everyone in the population has raised levels of symptoms, which may or may not be the case.
- The strong focus on inner suffering often associated with the psychosocial approach can divert attention from the material and human devastation which are usually the primary consequences of war. "War-affected populations are argely

directing their attention not inwards, to their mental processes, but outwards, to their devastated social world" (Summerfield, 1996, p. 1454).

- A focus on psychopathology can also divert attention from other responses to war – both amongst the healthy population and amongst those with psychological disorders. Even people with high levels of symptoms can display strengths and positive adaptation in other areas.

- Taking sides

Particularly at the start of the war, most international agencies had difficulty in identifying who were the aggressors and who were the victims, which meant that they went out of their way to avoid taking sides, at least explicitly. Moreover, the tradition of psychosocial support in the area was itself already substantially a technological one and other approaches such as the rights-based approach popular in Latin America did not fit well with this paradigm (Agger, 2001). So the mainstream of psychosocial help in the region was delivered in a manner which did not attempt to question the political issues surrounding and perpetuating the violence. There were some exceptions. A good example is the work of the women at Medica, based in Zenica, who integrated their psychotherapeutic work with women and their children into a larger program aimed at combating war-related and post-war violence against women and children.

More important for the concerns of this book is the way that this reluctance to take sides has affected not only the political stance, but also the psychological content of models and interventions. Psychologically very relevant issues of guilt, perpetration and revenge were largely sidelined, at least in official program plans, being replaced above all by the colossus of posttraumatic stress disorder, which is a highly medicalised model of one kind of human response to what happens in wartime. The psychosocial response was (in this sense) politically neutralised so that it could be offered to all (Agger, 2001).

- Focus on the victim

There are a large number of demobilised soldiers in the region who suffer psychologically due to their own participation in the war - whether defending themselves and their communities or more or less willingly committing atrocities - and who in some cases pass on this suffering to their families. Partly for the reasons mentioned in the preceding subsection, there are very few formal psychosocial programs designed to meet their needs. The very mention of such issues tends to meet with resistance, even from the soldiers themselves. Often it is easier just to work with those who are obviously nothing but victims, such as children. Nevertheless, a pressing need is going unmet.

- Role of the family

Is the concept of "society" the best or the only counterpart to that of the individual psyche? In this region, many people are now allergic even to the *word* "society" ("zajedništvo") in a political context, because it seems to hark back to the ideology of pre-war Yugoslavia. Perhaps a more appropriate counterpart to the individual psy-

che in the area of former Yugoslavia is not so much society, as the *family*, in both its nuclear and its extended forms (Weine, 2000). Perhaps the very strong family bonds typical of the Balkans are one of the protective factors which explain how many individuals managed to come out relatively healthy, or even strengthened, from terrible war experiences. Equally, it is quite possible that a dysfunctional family in this region is even worse for its members than a dysfunctional family in the West. Certainly, some programs tried to address and strengthen family coping mechanisms. But the family as a system seems to be largely missing from most formal models of adaptation and intervention, and from most published research in the region.

- Cultural imperialism?

Most of the concepts, programs and assessment instruments (questionnaires, etc.) used recently in the region were either introduced during the war from America and Western Europe or were based on the predominantly academic tradition in the psychosocial sciences in former Yugoslavia before the war. It is not clear to what extent the concepts implicit in this psychosocial technology is really appropriate to the general population in this region and to the rural population in particular. Does it reflect the worldview, symptomatology, interests and priorities of the intended recipients? Concretely, is posttraumatic stress disorder really, of all possible constructs, the one most appropriate to describe the distress experienced by different sections of the population during and after the war?

On the positive side, this preponderance of existing, more proven constructs and measures allows not only better comparison with existing data (a secondary priority in wartime) but also better integration with existing systems of diagnosis and care. Nevertheless, we know of no research conducted recently in the region which really attempted to address these questions of cultural validity in a systematic way. The common and very cost-effective practice of, at the very least, adding new items or open questions at the end of existing questionnaires with the intention of exploring situational or culture-specific issues is to be encouraged, providing this data is then actually analysed and reported.

Concerns about cultural appropriateness are often expressed with regard to *questionnaires* and *models of pathology*. Quite possibly these worries are displacements from the larger, more pertinent issue about who sets the agendas for research and intervention.

- But realistically ...

At the start of this section the attempt was made to characterise how the insights inherent in the psychological model extend the medical model of human suffering, and how this “psychosocial approach", particularly with respect to post-war and disaster relief, attempts to go beyond both these models. The psychosocial approach implies that good interventions should be designed according to these insights.

The criticism that what has actually been happening in the region falls short of these goals was then addressed.

Of course, there is a big difference between the handbook or the project proposal and what actually happens in counselling and therapy and other forms of support. On the one hand, the reality may be a less than perfect implementation of the plan. On the other hand, the details of many program activities and individual contacts between staff and beneficiaries may actually be addressing many of the above-mentioned issues – guilt and retribution for instance – in ways not covered in either the handbook or the final reports. As these "unofficial" aspects do not fit the official model they are less well documented and hard to assess. Certainly they do not feature much in the contributions to this volume.

All in all, the majority of the research and intervention programs delivered in the region since 1991 each probably extended the medical model in only very limited ways. Of course, there were and are many reasons for these lapses, above all lack of time and other resources. However, the opportunity has now come, with the transition from emergency response to the development of sustainable programs of psychosocial support and research, to build on the pioneering work reported in part in this book, but emphasising quality over quantity. It is the responsibility of psychosocial professionals to deliver care which actually addresses the real needs of potential beneficiaries and is proven to be effective in meeting those needs.

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Overview of results regarding adults

Prof. Dr. Renko Dapic

Introduction

The Sarajevo Symposium, organised in July 2000, gathered a large number of scientists, academic professionals, practitioners and students from nearly all the countries of former Yugoslavia, as well as a significant number of scientists from other European countries. All of them are working on topics that until the beginning of the last decade of the 20th century, in the former Yugoslavia and the whole of Southeast Europe, have rarely been taken into consideration and have rarely been operationalised in suitable programs of practical assistance to persons suffering from psychological trauma.

Their research was initiated or conducted in extremely difficult circumstances which were hardly conducive to systematic scientific research work.

In spite of this, the papers presented here bear testimony to a remarkable breadth and diversity of research interests. This research, which has good methodological foundations, enriches and deepens knowledge about traumatic and other long-term consequences of war and loss; about torture, displacement and refugee, circumstances that have tragically marked life in this area – but also about survival, ways to confront inhuman circumstances, about psychological resilience, effective ways and strategies to confront difficulties, posttraumatic growth, and on solidarity and ways of seeking psychological support.

Therefore the task of organising these papers into the chapter structure of this book is a difficult one – because it is impossible to avoid the question of how to make the decisions to introduce order without neglecting some important problems or some of the most important aspects of the papers.

The first part of this book, which is discussed here, is dedicated to papers on adults[1].

Papers on epidemiology and risk and protective factors

The first subsection of the book comprises valuable descriptions of and/or epidemiological data on psychological and psychiatric consequences that are visible in different groups of citizens during war and after war.

Babajić and Selimbašić discuss depressive conditions and suicide attempts among mentally challenged people during war.

The frequency of neurotic and psychotic reactive manifestations in people directly and/or indirectly exposed to war is discussed by Kočevska.

A serious lack of balance between studies of trauma on men and studies on women is discussed in the paper written by Bell et al. The female part of the population is also a focus of the research that refers to the detailed examination of personality with the application of the five-factor model and ways of coping with stress induced by war in a sample of working women (Hanak).

[1] Unfortunately, for technical reasons the contribution from Pernar was not available for discussion in this overview.

Pavlović and Sinanović write about the psychological problems of soldiers during war and about posttraumatic stress disorders in seriously wounded soldiers, and emphasize the importance of an interdisciplinary approach and psychotherapeutic work in centres for physical rehabilitation in order to overcome an exclusive focus on physical therapy.

Several papers discuss the complex problems related to forced migration and refugees.

The influence of external stress (war experiences, experiences during flight and refuge) on the prevalence of posttraumatic stress disorders in adults in the general population can be researched through a detailed comparison of subgroups of returned refugees, and displaced and non-displaced persons (Rosner, Powell & Butollo). The five-factor personality model was applied in the research on the development of chronic posttraumatic stress in refugees (Savjak). What is the structure of displaced refugee families? Will the problem of incomplete families become more extreme in the future (Babović)? What are the problems of cultural adaptation for refugees from Bosnia and Herzegovina in Austria (Kučera & Lueger-Schuster)? Rošić researched the relationship between traumatic war experiences and locus of control and fear of negative evaluation. Attitudes toward displacement, toward the ones "responsible for the displacement" and attitudes toward war and return to the original place of residence were researched by Hegić.

All the information collected through empirical research and presented at the Symposium in Sarajevo has additional significance insofar as it is directed toward the future – it provides a foundation for the solid and high quality development of data collection methodology and for the development of psychological preventative work in the future, at all levels of protection and improvement of mental health of citizens. The last two papers to be discussed here seem very important to us in this respect.

In the research conducted by Adamović, does the decrease of ethnic distance in the post-war period support the thesis that "international hatred in the former Yugoslavia was caused by the war and in time this hatred will decrease"?

The study of posttraumatic growth after war among refugees and displaced persons in Sarajevo (Powell et al.) shows that after accumulating an intolerably high number of individual horrible, traumatic events, together with the destruction of micro and macro environmental systems, it is not easy to notice positive changes in personal life, even though "on average...subjects did not reject out of hand the idea of posttraumatic growth".

Papers on treatment

The second subsection deals with psychosocial, psycho-educational and/or psychotherapeutic work, especially with adults.

It seems to us that these presentations of specific psychosocial interventions developed and applied on the spot, as well as complex mental health programs that also contain elements of evaluation, show, in spite of difficult conditions, an increased sensibility for the kind of psychological problems addressed by psychologists in the

community. The multidisciplinary approach in providing psychosocial support is essential (Novković). Complex rehabilitation of psychotraumatized persons, non-violent conflict resolution and integration of damaged communities is a very slow process that cannot be rushed (Tauber). Any intervention program that aims to improve the quality of life for all citizens, refugees and returnees has to be a very complex program (Kukić & al.).

Data gathered on the special problems of people who were exposed to torture (Popović) or those who received treatment after amputation (Lipničević-Radić) demonstrates how necessary it is to have adequate social support.

It follows that it is necessary to think also about the organisation of intervention and psychological support for caretakers (Srna), and differences in experiencing war stress between “caretakers” and “non-caretakers” (Radić).

Programmes established during the war confront us with the question of how and to what degree is it possible to use data from existing projects to estimate their effectiveness in mental health protection (Mooren et al.).

A significant contribution to comparing information on persons who have and have not participated in psychological treatment, in a methodologically precise way, and on samples from the entire population, (an approach that is seldom found in literature on the psychosocial consequences of war), was made as a part of the study conducted by Ludwig-Maximilians-University from Munich (Powell et al.).

Conclusion

This international seminar has marked an end to a very long and difficult stage of a particular kind of response to war and its consequences, and a beginning of a new, quieter, but also difficult and uncertain, phase of thinking, involving questioning and researching as well as planning and organizing activities and psychosocial and psychotherapeutic work with thousands of persons whose lives have been ruined or drastically changed.

Therefore, the publication of the papers in this book is a significant achievement, which surpasses in importance all the limitations of time and space in which the research was conducted.

Papers on adults: epidemiology and risk and protective factors

Women from the safe haven: the psychological and psychiatric consequences of extreme and prolonged trauma on women from Srebrenica

Pam Bell*, Isabel Bergeret & Lilijana Oruč

*Free University of Brussels, Belgium

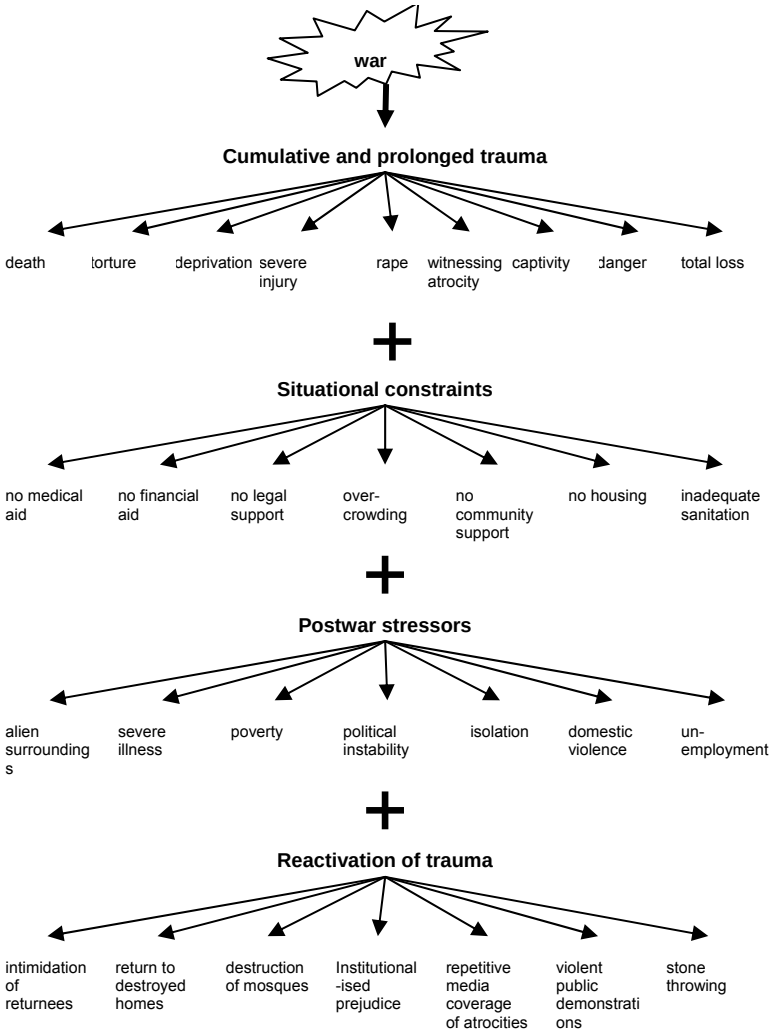
This research forms part of a larger doctoral thesis research project on the psychosocial consequences of war trauma in women.

Theoretical background

In recent years, there has been a surge of interest in the effects of trauma, particularly after the inclusion of Posttraumatic Stress Disorder in DSM-III in 1980 (American Psychiatric Association, 1980). Much of this interest has focused on male veterans – particularly from the Vietnam War. In addition, the number of international refugees more than doubled in the 1980s, reaching almost 23 million by late 1993 (Rojnik, 1995). As a result of this escalating crisis, these populations have also received increased attention (e.g. Mollica et al. 1987, 1992, 1999; Weine et al. 1995, 1997, 1998; Silove, 1993, 1996, 1999). Due in part to the very nature of the refugees' circumstances, this research is conducted almost exclusively in host countries, that is to say outside the geographical and cultural contexts. In fact, an extensive review of epidemiological studies on posttraumatic stress disorder (PTSD) by De Girolamo and McFarlane (1994) reveals that only 6% of studies from this review were conducted in non-western or developing countries. Furthermore, the vast proportion of stress-related events, such as wars and natural disasters, where entire communities or populations are traumatised, occur in countries outside Western Europe and North America. This implies that many traumatised populations are either scientifically ignored, or that their situation is being addressed by Western European and North American researchers, outside the geographical, social and psychological context of their trauma. Undoubtedly, there are negative implications arising from this situation, regarding both the traumatised populations concerned, and the emerging research that forms current understanding of PTSD and other trauma-related disorders (Bell, 2000).

Little structured research exists on female civilians who have been forced to remain in the war environment – either in their own homes, or having been displaced to other towns still under enemy bombardment. In particular, victims of ethnic cleansing are living in poor conditions in refugee settlements, as the return of refugees remains an unresolved and politically sensitive issue in Bosnia today. In recent years, a growing body of research suggests that exposure to highly traumatic situations leads to high rates of PTSD – some estimates indicate a prevalence of up to 86% (Bernstein-Carlsson & Rosser-Hogan, 1991; Hauff and Vaglum, 1994). Although research has been published on refugee populations in general, this rarely addresses the problem of displaced persons, or returnees.

Fig.1 Nature and extent of trauma. Factors associated with a higher risk of pathology



Background events

Srebrenica was one of the most brutally affected areas during the war in Bosnia. Ironically declared the United Nations' first Safe Haven, Srebrenica was invaded by Bosnian Serb troops in July of 1995. Many women were abducted and raped, and other inhabitants were tortured and summarily executed before family members (Hauser, 1995). Thousands of men and boys were deported to camps, and thousands more who had fled just prior to the invasion were hunted down and executed.

Women, children and the elderly were expelled. Eyewitness accounts and aerial imagery of the surrounding countryside revealed evidence of mass graves. The International Committee of the Red Cross still lists approximately 7,300 missing persons from the fall of Srebrenica (ICRC Special Report, 1998). To date, the majority of these women do not know the exact fate of their loved ones. For some, an entire extended family has been wiped out - husband, father, sons, brothers and close relatives. A world has been destroyed, and replaced by a new existence: that of the displaced person. Displaced within their own land, the majority are still today living in conditions of poverty and insecurity. Their past traumas are compounded by multiple stressors that continue unrelentingly in their present lives, and which, without a doubt, will continue well into their future. (Fig1. represents some of these manifold traumas).

Hypothesis

Exposure to multiple traumatic events leads to a high incidence of psychological and psychiatric disorders, including depression, anxiety and PTSD, as well as low self-esteem and poor social functioning.

Sample

50 displaced women between the ages of 20 – 50 originating from Srebrenica, and currently residing in refugee settlements outside Sarajevo.

Main instruments used

- A general questionnaire to collect pre- and post-war demographic details, including family structure, economic situation and material losses.
- The Harvard Trauma Questionnaire – Bosnian Version (Mollica et al., 1998)
- The Hopkins Symptom Checklist-25 (Mollica et al., 1987)
- The Ways of Coping Scale (Lazarus and Folkman, 1988)
- The New York State Self Esteem Scale (Rosenberg, 1976)

Method

Fifty displaced women were selected at random from files of the social welfare service responsible for displaced people. They were interviewed in their own homes by psychiatrists from the Sarajevo Psychiatric Clinic, using a battery of tests to establish the incidence of PTSD, anxiety, depression, as well as the level of social functioning and self-esteem. The statistical analysis performed on these scores included logistic regression and Chaid analysis.

Results

Results indicate an overwhelming presence of PTSD – 82%, depression, 80%, anxiety 76% and poor social functioning 72%. The strongest predictor for all the above psychopathology was that of severe and multiple trauma. Torture and loss of loved

ones were the most damaging traumas, and in particular, the witnessing of atrocities.

Conclusions

War-related traumas have dramatic effects upon the individual, and are so widespread as to assume far-reaching consequences for the community and society as a whole. Due to the large clinical workload and limited resources of countries in, or emerging from conflict, research can seldom be a priority. However, it is imperative that governments, institutions and organisations dealing with trauma recognise that in spite of very pressing material needs, structured research and data are essentially lacking elements in the pursuit of long-term solutions. In order to address the problem, it is essential to perform structured research within the geographical context, in collaboration with local authorities, and using culturally sensitive materials and methods. It is vital to develop a deeper understanding of the repercussions of such overwhelming trauma, and to discern what the personal and environmental factors are that positively or negatively influence an individual's path to recovery.

Moreover, it is essential to redress the serious imbalance that exists in trauma research regarding non-western societies in general and female war victims in particular.

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The effects of war trauma in Bosnian female civilians: a study description.

Pam Bell*, Lilijana Oruč & Kevin Spratt

*Universite Libre de Bruxelles, Belgium

Introduction

In the last quarter century, there has been a surge of interest by mental health professionals into the effects of traumatic experiences. Although there is an increasingly large body of research available, the task of uncovering these effects remains daunting. Unfortunately, a serious imbalance exists as to which populations receive attention and also the actual nature and extent of the trauma. Thus an immense proportion of research has been performed in western countries, and considerably less research is available on the effects of prolonged, multiple trauma. Moreover, certain population groups have been almost entirely ignored, such as women in conflict. Undoubtedly there are negative implications arising from this situation, regarding both the traumatised populations concerned, and the emerging research that forms our current understanding of PTSD and other trauma-related disorders.

The following is a study of female civilians who survived the war in Bosnia. The research has been performed in the country of origin, both during and in the wake of conflict. The trauma experienced was overwhelming, repeated and prolonged, including torture, mass rape, and multiple loss of family, extreme danger and deprivation. As there is so little research to date dealing with women in such circumstances, this research is confronted by a lack of attention in all the areas mentioned above. In the absence of existing models of research, much of the work is exploratory in nature. As such, the aim is to raise awareness of this neglected and vulnerable group, to open debate, to elicit attention and critique, ultimately encouraging further and necessary exploration.

Aims

To achieve a greater understanding of the impact of traumatic events associated with war, deprivation, genocide, ethnic cleansing and torture on women, within the geographical and social context of these events.

In particular:

1. the consequences of traumatic events on mental health. This includes psychological distress, and the development of psychiatric disorders, most commonly PTSD and depressive disorders;
2. psychiatric morbidity and psychological distress compared between three groups;

3. whether differences in psychopathology and the capacity to adapt among individuals are linked to the particular life events experienced during the war and present life circumstances;
4. the relationships between diagnosis, symptoms and the number and severity of extreme stressors.

Sample

Three samples of fifty women within the age range 20 to 50 were taken. The Centre for Social Work of the city of Sarajevo and the Psychiatric Clinic provided files with information on the social and economic conditions of women in Sarajevo. Cases were selected at random. They were divided into three categories of war experience:

- non-displaced: women residing in Sarajevo throughout the war and thereafter;
- displaced: women forced to leave their homes, and staying in or outside Sarajevo;
- returnees: women who have returned to Sarajevo from exile.

Instruments and variables

The women were given the following series of questionnaires and structured interviews:

- A general questionnaire assessing pre-war and current social environments of the subjects, including family structure, economic situation, material losses and financial support. This questionnaire was designed especially for this study.
- The Harvard Trauma Questionnaire - HTQ (Mollica et al., 1993). This cross-cultural scale measures the presence of PTSD at least six months after trauma. Both traumatic events and symptoms are examined.
- The Hopkins Symptom Checklist-25 (Mollica et al., 1987). This supplements the HTQ by assessing symptoms of depression and anxiety.
- The New York State Self Esteem Scale (Rosenberg, 1976). These two scales explore personality features and coping mechanisms.

The information gathered in these interviews can be divided into groups of variables as follows:

- General demographic information (such as marital status, age, level of education)
- War-related demographics (such as number of people sharing accommodation, sanitary conditions, contact with dispersed family).
- War-related trauma – divided into daily living conditions during siege (such as shelling, property destroyed, lack of food and shelter), life under enemy occupation (such as having one's home searched, being forced to betray others, forced labour) and torture (physical, mental and witnessing). A sub-category of war-related trauma was the capture, disappearance, injury or killing of family members. All the above elements could be considered predictor variables – that

would in some way be linked to, or influence, the level of psychiatric morbidity and/or psychosocial adjustment.

All clinical interviews and scales have been translated into Bosnian, and were administered by a Bosnian psychiatrist experienced in the field of trauma.

Results

Table 1: Results for main outcome variables according to sub-group.

	Displaced	Non-displaced	Returnees
PTSD	70.00%	46.94%	44.90%
Low self esteem	83.67%	26.00%	39.58%
Anxiety	81.63%	63.27%	63.27%
Depression	87.76%	54.14%	67.35%
Poor Social Functioning	34.00%	30.61%	28.57%

Discussion

Results reveal an alarming presence of depression, anxiety and PTSD, in addition to significant manifest poor social functioning and low self-esteem. Displaced women - victims of ethnic cleansing - showed the greatest level of psychopathology and poor social adjustment. However, the amount and severity of stressors also appear to be considerably higher for this group – notably, lack of food and shelter, number of family members killed, forced labour, losses sustained, and poor health of their children. None in this group escaped mental abuse and 66% had children killed – many before their own eyes. 75% had children captured, 79% had a spouse captured, and 80% had their spouse killed. Ironically, this group of women were from the very first United Nations 'safe haven', Srebrenica.

It is important to note that similar traumatic events showed a remarkably high incidence in both other groups too – with 95% of the non-displaced population coming under enemy fire, and 85% lacking food and shelter. Generally speaking, there was little significant difference between non-displaced and returnees – both in terms of number of stressors and pathology - , other than that, interestingly, the group of returnees showed 10% more depression. One could explore the possibility that refugee status and then returning as an exile could act as secondary and tertiary traumas. Unfortunately the samples are two small to make such claims on the basis of this study, but this warrants further exploration.

In terms of variables linked to pathology, the most important predictor of PTSD, poor social functioning *and* poor self-esteem, was *witnessing atrocity*. This is clearly a very strong factor in mediating in the development of psychiatric disorder or adjustment difficulties. Why it should have a more potent effect than personal physical

suffering is unclear. In the context, witnessing atrocities was almost always *forced* witnessing – and thus a form of torture. As such, it is consistent with other studies that have indicated torture as a virulent determinant in the development of PTSD. Events associated with enemy occupation – such as being forced to destroy property, having one's home searched for traitors, forced separation from loved ones – was the strongest predictor of depression. Other strong predictors were all associated with war-related, severely traumatic events, with the exception of *age* – which although a weaker predictor, nevertheless showed a trend wherein the younger group of 20 – 30 year olds were less likely to develop PTSD, or have poor self-esteem than the two older groups.

A further important result was that good health consistently acted as a protective factor in development of pathology, and poor health a predictor for development of pathology. Unfortunately the assessment of general health was not sophisticated enough to draw significant conclusions from this research. However, such results call for further inquiry.

These and other shortcomings, difficulties and dilemmas, illustrate the discrepancies between theory and practice, which are often a focal point in conflict research.

Bosnia serves as a pertinent example of a population which has become the focus of journalists and humanitarian aid workers, yet where the nature and extent of the traumatic experience often defies the capacity of foreign programs to deal with it. International aid agencies offering programs that are not always in harmony with the cultural and social norms of the victims have persistently been frustrated by the failure of therapeutic models being used outside the cultural setting for which they were designed. An improved understanding of the interplay of trauma and culture is essential to help untangle the web of causal and protective factors that result in traumas being endured, succumbed to, or recovered from (de Vries, 1996). It is not only these critical cultural differences which can confound foreign therapy models, but the nature of the trauma itself, and notably the surrounding environment. The trauma is extreme and prolonged, and occurs in the total absence of any normal support, be it familial, social, legal, financial or medical. The victims continue to be confronted by overwhelming practical burdens that are not taken into account in most western therapy models. A comprehensive understanding of the diversity and intensity of these traumas is central to the empirical study of PTSD, and to the planning of its clinical treatment (Fontana, 1992, p. 748). In spite of considerable media coverage and important anecdotal accounts, there remains a paucity of systematically obtained information on the nature and prevalence of such experiences in civilian populations in Bosnia (Goldstein et al., 1997, p. 873). Structured research within the geographical context, in collaboration with local authorities, and using culturally sensitive materials and methods, is a fundamental prerequisite for long-term solutions.

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Displacement as a factor causing posttraumatic stress disorder

Nadežda Savjak

Faculty of Philosophy, Department of Psychology, University of Banja Luka, Bosnia and Herzegovina

Introduction

Studies of PTSD among Vietnam veterans (Kulka & Schlenger, 1994; Kleber & Brom, 1992; Joseph, Williams & Yule, 1997) reported that 10-20 years after demobilisation a high percentage of them (15.2%-23.9%) met DSM criteria for this kind of disorder.

Apparently, displacement as accumulated loss presents an even more powerful risk factor of PTSD persistence. In a sample of Afghan and Cambodian refugees who live in the USA, the reported PTSD prevalence ranges from 45% to 86% (Blair, 2000; Cheung, 1994). According to the results, accumulated traumas (especially death of close persons) and stressors during the adaptation significantly increase vulnerability. Social support is a very significant factor in coping with PTSD (Kleber & Brom, 1992; Cheung, 1994; Malekzai, Niazi, Paige, Hendricks, et al. 1996; Joseph, Williams & Yule, 1997; Shalev, Freedman, Peri, Brandes, Sahar, Orr & Pitman, 1998; Shapiro, Douglas & Rocha, 1999; Blair, 2000).

There is not much data on PTSD prevalence within the territory of former Yugoslavia; however, as time is passing the consequences of unprocessed traumatic experiences become more apparent. Reported PTSD prevalence among refugees in collective centres was ranging from 26% (Harvard Program in Refugee Trauma, Harvard School of Public Health, Harvard Medical School & Ruke NGO 1996) to 35% (Powell, Rosner, Butollo, 2000), and among Croatian soldiers it ranged from 14% to 31% (Gustovic-Ercegovac & Komar 1994). Three years after the war in Bosnia and Herzegovina, 10-18% of the non-displaced population of Banja Luka and Sarajevo – i.e. those who were not displaced – suffers from PTSD (Powell, Rosner, Butollo, 2000).

Problem

About one third of the population of the Republika Srpska (420,000) are displaced persons. The majority of men spent several years on the frontlines. 12,191 persons were killed and several thousand people were declared "missing". After the loss of close persons, direct threat to life, wounding, or witnessing violence, life goes on in a very unstable socio-economic environment (economic slump, destroyed socio-economic and physical infrastructure, unemployment, political conflicts, etc.).

The present contribution focuses on the issue: What is the impact of displacement and accumulated war-related traumas on the persistence of PTSD in the current socio-economic context?

Hypotheses

1. We expect the risk of chronic PTSD in displaced persons to be significantly higher than in the non-displaced population – i.e. those who were not displaced, and symptoms to be significantly more frequent.
2. Displaced persons who (a) experienced the loss of close persons or (b) direct life threat or (c) witnessed somebody's death or (d) had combat exposure would more frequently have PTSD symptoms than non-displaced persons who experienced similar traumatic events.
3. Displaced persons who (a) experienced the loss of close persons or (b) direct life threat or (c) witnessed somebody's death or (d) had combat exposure would more frequently have PTSD symptoms than displaced persons who had not experienced those traumatic events.

Sample and methods

In 1998, the Foundation for Training, Research and Public Works of the Republika Srpska hired a team of clinical psychologists for the project "Demobilisation and Reintegration". They were assigned to conduct an actionable research of the traumatisation level in participants of the employment program, and to provide them with advice and psycho-educational training. Out of this extensive research project, only the results relevant to the observation of the effect of displacement on the accumulation of PTSD are extracted here.

The study was conducted in groups, and subjects were promised full anonymity. We advised them that results of the study will not assist them in terms of finding employment and that the analysis of group results will be used in the creation of the psychological assistance program. The selection of the sample of 299 unemployed subjects and was performed by the Employment Bureau. 180 males (78.6%) and 49 females (21.4%) were assessed with the extensive battery. 94 (41%) of them were displaced persons (mean age = 36.2 g.; SD=7.34). The average age of 135 non-displaced subjects is lower (M = 32.9 g; SD=5.36). As for education, most of the subjects have completed secondary school (78.2%). 51.8% of subjects were married.

Main Instruments used

65 stressful traumatic war-related and post-war experiences were listed in an inventory of life events, facilitating identification of cumulative exposure.

A self-report checklist designed in accordance with DSM-IV (1996) (Pynoos, Layne, Saltzman, Sandler, 1998) was used as a checklist of PTSD symptoms. Its 17 items assess the presence of symptoms in the last month, to be answered on a five-point scale (0=never, 1=rarely, 2=sometimes, 3=often, 4=almost always), keeping in mind the traumatic experience (Criterion A).

The correlation of this instrument with CAPS is reported as r = 0.929 and diagnostic validity was 0.9 (Blanchard, Jones-Alexander, Buckley, Forneris, 1996).

Persons considered at risk for posttraumatic stress disorder were those who fulfilled the DSM IV criteria by answering the questions with "2","3" or "4" as follows:

- - Criterion B – symptoms of re-experiencing (on at least 1 out of 5 items)
- - Criterion C – symptoms of avoidance (on at least 3 out of 7 items)
- - Criterion D – symptoms of hyper-arousal (on at least 2 out of 5 items)

In assessing persons at high risk, the same principle was used, although only the answers of level "3" and "4" were considered.

Results

Table 1. Differences in the risk of PTSD, and the means of the total and partial scores of PTSD, in displaced persons and non-displaced persons.

		Means		T	Significance
		Non-displaced persons N=135	Displaced persons N=94		
	Total score	18.88	29.83	6.55	p<0.01
	Intrusion	4.84	8.06	5.87	p<0.01
	Avoidance	8.31	12.38	5.50	p<0.01
	Hyper-arousal	5.37	9.40	6.29	p<0.01
		N / Percent		Chi^2	Significance
Persons at risk of PTSD	yes	36	40		
		26.7%	42.5%	6.29	p<0.02
	no	99	54		
Persons at high risk of PTSD	yes	7	16		
		5.2%	17.0%	7.34	p<0.01
	No	128	78		

The results reported that symptoms of intrusion, avoidance and hyper-arousal in displaced persons are significantly more frequent over the past three years after the war than in a population of non-displaced persons. On the basis of the self-evaluation questionnaire, 42.5% of the displaced persons (compared to 26.7% of non-displaced persons) were at risk for PTSD according to DSM IV criteria. 17% of the displaced persons, as opposed to 5.2 % of non-displaced persons, are at high risk of PTSD.

Table 2. Cumulative effects of certain traumatic events during displacement: total PTSD scores

		Non- displaced		*Displaced*	
		Exposure to traumatic events		*Exposure to traumatic events*	
TRAUMATIC EVENT		*NO*	*YES*	*NO*	*YES*
		Group 1	*Group 2*	*Group 3*	*Group 4*
Loss of close persons	N	77	58	51	43
	M	18.37*#	18.07*#	25.94*	34.33
	SD	12.44	10.99	11.93	11.08
				F Ratio = 16.92, F Prob.000 df= 228	
Combat exposure	N	73	62	45	49
	M	17.60*#	19.05*#	29.12	28.77
	SD	11.22	12.52	11.23	13.25
				F Ratio= 13.18, F Prob. 0000 df=228	
Direct life threat	N	50	85	28	66
	M	17.65*#	18.57*#	30.52	28.27
	SD	17.65	18.58	12.11	12.35
				F Ratio = 13.31, F Prob. 000 df= 228	
Witnessing death	N	69	66	38	56
	M	17.08*#	19.44*#	27.38	30.91
	SD	10.68	12.82	12.29	12.13
				F Ratio = 14.19, F Prob. 000 df =228	

* means that are statistically different from means reported in group 4

means that are statistically different from means reported in group 3

Analysis of statistically significant differences in terms of frequency of PTSD symptoms (Scheffe's test of multiple comparisons) confirms hypothesis 2 and hypothesis 3a. The traumatogenic effects of combat exposure, direct life threat and witnessing death three years after the war are not so obvious within non-displaced subjects, but there are statistically significant differences between displaced and non-displaced subjects who experienced those events. Accumulated exposure to certain war-related traumatic experiences in displaced persons does not lead to more frequent symptoms, except in the case of the death of close persons.

Discussion and conclusion

Displacement itself presents an accumulation of material, psychological and social losses. The present results show that additional exposure to traumatic events (immediate life danger, participation in war activities, witnessing death) does not in most cases increase vulnerability in the displaced population. It seems that the effect of certain war-related traumas fades as time goes on. This somewhat contradicts the findings of other researchers on the impact of cumulative trauma experiences. (Kleber & Brom, 1992; Joseph, Williams & Yule, 1997; Blair, 2000; Cheung, 1994; Shapiro, Douglas & Rocha, 1999).

The impact caused by the death of loved ones on the frequency of PTSD symptoms three years after the war can be explained by the effect of current stressors, which became "triggers" in the process of reactivating the original traumatic experiences (Blair, 2000; Blanchard, Jones-Alexander, Buckley & Forneris 1996; Vlajković 1988; Vlajković, Srna, Kondić & Popović, 1997; Pynoos, Layne, Saltzman, Sandler, 1998). Frequent post-war difficulties that occurred after displacement and the struggle to meet basic needs can act as barriers to processing and coping with past experiences. Reminders of loss ("empty situations", difficulties caused by death) during displacement are particularly painful and three years after the war they are probably more frequent than reminders of the immediate threat, witnessing violence or combat experiences.

It should not be forgotten that the (non-) existence of statistically significant differences in terms of frequency of symptoms still does not show the (non-) existence of differences in terms of severity of symptoms and their impact on the ability of a person to function. Symptoms that appear rarely could be very intensive and can seriously disturb psychosocial functioning. In the creation of programs of psychosocial support in community and clinical work, one should pay special attention to a very vulnerable group, i.e. displaced persons who have experienced the death of close persons.

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The structure of displaced families who settled in Zenica

Nurka Babović

Medica, Zenica, Bosnia and Herzegovina

Introduction

The war and war atrocities that occurred in the R B&H (Republic of Bosnia and Herzegovina), aside from the killing of men, women, children and elderly people, included one more form of very destructive and inhuman mass behaviour, the exiling and displacing of persons, or in other words, ethnic cleansing.

Prior to the discussion of the structure of displaced families in biological and socio-economic terms, it is necessary to explain the classic typology of a family.

The typical division of family into complete and incomplete, in normal circumstances (without war) would mean:

- complete family: father, mother and children;
- incomplete family: single parent family (if one of parents died or if they are divorced).

In this study, "complete family" retains this same meaning, while "incomplete family" refers particularly to families in which one or both parents were killed. Besides this, there is the question of whether those parents who were declared missing, or were taken to concentration camps or captured, will ever return.

In addition to this categorisation of families, there is another: the nuclear and the extended family. The nuclear family includes father, mother, children, whereas the extended family includes one or more additional members who are related by blood to members of the nuclear family. Those are usually one or both parents of the husband or one or both of the parents of wife, or the husband's brothers and sisters.

Empirical part of the study

Aim of the study

The aim of the study is to examine the structure of displaced families and refugees from the areas in B&H affected by the war who settled in Zenica.

Method, techniques and instruments used

This was an empirical and non-experimental study, in which results of a survey using the Refugee Questionnaire were analysed. This questionnaire was applied in the Centre for War Crimes and Genocide against the Muslims from June 1992 to June 1993. The study was carried out on a random sample of 10% of the available ques-

tionnaires, resulting in a sample of 244 people, each speaking for the family group with whom they had arrived.

Results

Due to the geographical position of Zenica, which is in central Bosnia, the refugees who settled in Zenica mostly came from neighbouring municipalities: Doboj, Derventa, Teslić, Tešanj; and a smaller number of them came from places further away, such as Rogatica, Gacko, Foča, Kotor Varoš, and Višegrad. All the aforementioned places were forcibly occupied by the aggressor and joined the Republika Srpska as an act of ethnic cleansing. The ethnic breakdown of refugees who settled in Zenica and those who were registered at the Centre for War Crimes and Genocide against the Muslims was reported as: 98.36% Muslims, 0.8% Croats, 0.4% Albanians and 0.4% others (mixed marriages).

The most common form of family was mother with children (26.22%), i.e. three members of a nuclear family, which confirmed our expectations. Due to the aggressor's politics, a large number of males was taken into concentration camps or declared missing or killed. Those who joined the B&H Army stayed on the frontlines.

As for the age structure of the subjects and members of their nuclear and extended families settled in Zenica, the results are as follows: all age categories were represented, from infants to persons over 76 years of age. 38% were under 20 years of age.

Bearing in mind the fact that mostly mothers with their children came to Zenica, our expectations regarding occupation were met. The subjects reported that 36.88% were housewives, 28.28% workers in different factories, while the other categories are fairly evenly distributed.

Results on the time period between when they left their previous place of residence and when they arrived at the refugee centre in Zenica showed that 75.82% of the subjects travelled with their nuclear and extended family for a month from their residence to the first refugee centre.

24.18% of the subjects who had been in concentration camps experienced torture, humiliation, exposure to starvation, forcible work and other events (seizing of jewels and other valuables). 43.85% of the interviewed subjects suffered torture outside concentration camps.

The data on economic status showed that all the subjects had owned private houses, and some of them even owned three houses, which typically were initially seized and then burned. They also reported that they had other facilities such as garages, stables and farms, cattle, tools, mechanical machines and motor vehicles. As for real estate, only 4.09% of the subjects reported that they had none. The rest of the subjects replied "Yes". 2.45% of the subjects had over 10,000 square metres of land. The results suggest that most of the examined subjects had previously had average incomes.

The gender structure of all those members of the respondents' nuclear and extended family who were killed, declared missing, captured, taken into a concentration camp, died or were in exile outside Zenica was: (79.68%) males and (20.32%) females.

Of these males, the most frequent reason for their absence was being taken to concentration camps (48.62%), whereas amongst the female family members of the respondents, the most frequent reason for absence was being declared missing (73.85%). These results confirm the current knowledge about the actions conducted by the aggressors, such as taking males into concentration camps and executing them.

The most frequent reason for the absence of children between 1 and 20 years of age was that they had been declared missing (58.62%); all the others (41.38% of the children) are still in exile somewhere outside Zenica. Regarding the age structure of the adult members of the nuclear and extended families, and of relatives who were killed, missing, taken to concentration camps, captured, or who died or were in exile somewhere outside Zenica, the results showed that all age groups were affected, even persons over 76 years of age (1.87%).

Conclusion

Many families which, prior to the war functioned as nuclear families, are now functioning as extended families, due to changed life circumstances: families merging with relatives into one household that sometimes includes several nuclear families. This study reports that in the future we can expect a higher number of incomplete families, because the figures show that most of the male members are still in concentration camps, have been declared missing, or were killed.

Attitudes to displacement

Fuad Hegić

Department of Education, University of Sarajevo, Bosnia and Herzegovina

Theoretical background

The theoretical background to this research is based on an understanding of attitude as a “permanent system of positive and negative assessments, emotional states and tendencies pro and contra certain social objects" (D. Krech, R. Crutchfield, E. Ballachey, 1972). Struggling with a variety of problems in order to achieve a goal, an individual constructs his/her attitudes. The individual constructs negative attitudes towards objects and persons who prevent him/her from accomplishing his or her goals.

Goal

The aim of this research is to determine (and rank) attitudes of displaced people towards their displacement and towards those persons responsible for displacing them, as well as attitudes towards the duration of the war and towards return.

Hypotheses

- We assume that the subjects have negative attitudes towards displacement.
- It is very likely that the subjects want to return to their pre-war places of residence.
- We assume that the subjects feel hatred towards those who expelled them.
- We suspect that once the subjects return to their pre-war places of residence they will never live with their neighbours as they used to before the war.
- It is very likely that the manner in which the subjects were expelled influences their feelings towards those who expelled them and with whom they are supposed to live together.
- We assume that the subjects are satisfied with the manner in which they were accepted (as displaced persons) by Zenica residents.

Sample

The research was conducted on a random sample of persons. The subjects were chosen from the lists of refugees in such a way that every fifth person from the list was included in the sample. The research was carried out from October to November 1992. During this period, according to records of the Centre for Social Work in Zenica, 6,000 refugees were registered. Due to the material conditions (lack of paper for questionnaires) we decided to use a 5% sample of the population, which satisfies methodological criteria. The sample included 200 subjects. In the definition of the sample, we introduced an age limit for the subjects, so the lower age limit was 16 years of age.

Main instruments used

The study used the “Refugee Questionnaire”, which was especially designed for this research. The questionnaire includes 24 yes/no questions, out of which 9 assess the social status of the subjects. Each of the questions which follow examines the subject’s feelings about those who expelled them, whether they want to return to their pre-war residence, how they see joint life with their neighbours, whether they are optimistic about the end of the war, how they were received by the Zenica residents and how they spend their time in displacement. There is also a set of questions examining the manner in which they were expelled and the experiences that they have suffered, then stress symptoms and the different styles of coping with that stress, etc. The questionnaire includes two scales: a scale of attitudes towards displacement and refugee status (this scale includes 10 statements assessed on a Likert scale), and Spielberger’s scale of anxiety assessment.

Methods

This research is empirical and non-experimental (survey method).

Results

- A subset of the questions was ranked according to how often a positive reply was given. The top two items in the ranking are neutral statements ("Displacement is something that could happen to anyone"), the third and fourth are positive statements ("Displacement enabled me to meet new friends"), followed by negative statements ("Displacement is the worst thing that ever happened to me"). The subjects assented to most of the statements offered.
- 92% of the subjects want to return to the place from which they were expelled, 4% do not want to return ever, and 3% replied that they did not know.
- More than half the subjects (79%) wish the aggressor to experience what they have experienced, and a small number of them feel hatred.
- 42% of the subjects do not want to live with their former neighbours ever again, and about the same percentage of them would live with them but cautiously, while 14.5% would live with them as they lived previously.
- The vast majority of the subjects who were expelled before the war would live with their neighbours, but on their guard, while those who were expelled during the war do not want to live with them ever.
- Regardless of the duration of the "refugee journey", most of the subjects are satisfied with how they were received in Zenica. (Those who have been in Zenica for less than a month or for more than three months are the most satisfied, while those who have been in Zenica up to three months are slightly more dissatisfied than satisfied with the manner in which they have been received.)

Conclusion

According to the ranking of statements about displacement, the “negative statements” are ranked lower than the top four, while the “neutral statements” are ranked

5 and below. Most of the subjects want to return to the place from which they were expelled but they would have a hard time living with their pre-war neighbours, and they wish them to experience what they have experienced. The noted tendencies were of great help in providing the first psychological assistance in refugee camps, which was our primary goal at that time and in the following years.

Posttraumatic stress disorder in adults after the war in Bosnia-Herzegovina: returnees, displaced and non-displaced persons in Sarajevo and Banja Luka

Rita Rosner, Steve Powell & Willi Butollo

Institute for Psychology, University of Munich, Germany

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This research was carried out in co-operation with the Departments of Psychology in Sarajevo (Prof. Dr. Dizdarević) and Banja Luka (Prof. Dr. Milosavljević and Dipl.-Psych. Turjačanin).

Theoretical background

Although many studies deal with the psychosocial consequences of war in soldiers, very few published studies cover the psychological symptoms in the general population, and almost none describes and compares sub-groups of returned refugees, displaced persons and persons who stayed in the region throughout the war ("non-displaced"). This study is a survey of war events experienced, flight history, current accommodation and psychosocial symptomatology amongst adults. The study focuses on the differential effect of flight, refuge and displacement on the expression of PTSD four years after the end of the war. Specifically, we were interested in the effects of external stressors such as war and flight experiences and personal characteristics (i.e. age, gender, education etc.) on PTSD diagnosis.

Hypotheses

- Traumatic experiences during the war, whether concerning the interviewed person or their loved ones, events during flight and refuge, and current stressors predict PTSD four years after the end of the war.
- Demographic variables such as age, gender and education are good indicators of PTSD.

Sample

All participants were adults between 16 and 65 who were resident before the war in what was then Yugoslavia. 5 study groups were interviewed:

1. 104 returnees from host countries outside former Yugoslavia, now living in Sarajevo;
2. 97 displaced or formerly displaced adults in Sarajevo;
3. 100 displaced persons now living in Banja Luka;
4. 100 adults who stayed in Banja Luka throughout the war;

5. 100 displaced persons living in collective centres near Prijedor and Banja Luka.

The samples were randomly selected either from lists held at local councils or from lists of people in each collective centre. Additionally, each sample was stratified to ensure an approximately equal number of men and women and an approximately equal number in each age group.

Main instruments used (assessments, questionnaires, etc.)

- Besides an extensive demographic interview, several newly developed questionnaires were applied to cover the following:
  - flight events (Flightpaths Inventory; FPI; Powell, Rosner & Butollo, 1999);
  - information about the circumstances of return (Additional Information from Former Refugees from Outside FY; AIR; Powell, Rosner & Butollo, 1999);
  - current accommodation and living conditions (Current Accommodation Status and Intentions; CAS; Powell, Rosner & Butollo, 1999); and
  - attitudes toward integration and identification with the home and host countries (Questionnaire on Integration and Identification; QII; Powell, Rosner & Butollo, 1999).

- For the assessment of current PTSD symptomatology, a Bosnian adaptation of the PTSD Symptom Scale (PSS-SR; Foa, Cashman, Jaycox, & Perry 1997) in the self-report version was applied.
- Since the original PSS-SR was designed for a civilian population in times of peace, we replaced the original PSS checklist of traumatic experiences in part 1 of the questionnaire with a checklist specific to the war situation in Sarajevo (Checklist of War-related Experiences, CWE; Powell, Krüssmann, Rosner & Butollo, 1998).

Results

Not surprisingly, all the respondents experienced appalling personal losses. Displaced persons, whether living in Sarajevo or in Banja Luka, experienced the highest number of traumatic events during the war (an average of 12.8 and 12.3 events), while those remaining in Banja Luka and the returnees to Sarajevo experienced a lesser number of events (7.5 and 9 events). Displaced persons living near Prijedor in collective centres survived an average of 10 war-related events. The returnees and displaced persons spent a great deal of time in temporary accommodation and collective centres. The respondents in collective centres are exposed to a particularly high level of current stressors such as unemployment, bad health and temporary accommodation. A multiple regression analysis was performed to estimate the amount of variance predicted by each group of variables (see Table 1).

While age, gender and income predicted a small but significant amount of variance in PTSD, the prediction improved to .22 when war events were entered in the equation. Flight events such as months in collective centres, months in temporary accommodation, days with no accommodation or traumatic events during the refuge abroad did not improve the prediction. In model 3 current stressors were included, and improved the prediction significantly up to .26 percent of explained variance, thus indicating that current stressors play a small but significant part in the maintenance of PTSD.

Conclusions

The results show that stressor variables predict a substantial amount of variance in PTSD-symptomatology. The adjusted R^2 of .22 is comparable to the amount of variance reported in the literature for effects of traumatic stressors. Unexpected was the finding that events and circumstance of flight and refuge did not explain a significant additional amount of variance.

Table 1: Predictors of PTSD Symptomatology

Model	Variable	Beta	Adjusted R2
Model 1: Demographic Variables	Age	0.195	
	Income	-0.170	0.09**
	Gender	-0.143	
Model 2: Demographic Variables, War Events and Events during Flight and Refuge	Age	0.120	0.22**
	Income	-0.201	
	Gender	-0.288	
	Total Number of Traumatic Events during the War	0.392	
Model 3: Demographic Variables, War Events and Current Stressors	Age	0.100	
	Income	-0.099	0.26**
	Gender	-0.285	
	Total Number of Traumatic Events during the War	0.308	
	Total Number of Current Stressors (Accommodation, Health, Unemployment)	0.246	

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Posttraumatic growth after war

A study with former refugees and displaced people in Sarajevo.

Steve Powell*, Rita Rosner & Willi Butollo

*Munich-BiH Psychology Program (Ludwig-Maximilians University of Munich, Germany; and University of Sarajevo, Bosnia and Herzegovina)

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Introduction

Survivors of a wide variety of different traumatic events, besides suffering from psychological and medical symptoms, often also perceive positive changes in themselves after the event. Tedeschi and Calhoun conceptualize this phenomenon of *posttraumatic growth* as "… a significant beneficial change in cognitive and emotional life that may have behavioural implications as well" (1998, p. 3). Further, it involves "such fundamental changes or insights about living that it does not appear to be merely another coping mechanism" (ibid).

So far, to our knowledge, no previous study has systematically assessed posttraumatic growth amongst the general population after an accumulation of traumatic events in wartime. This study investigated posttraumatic growth amongst former refugees and displaced people currently living in Sarajevo, Bosnia and Herzegovina. The majority of these people experienced a considerable number of traumatic events during the years of war in former Yugoslavia. And yet, life goes on in Sarajevo. Are at least some of the people thriving, or are they all merely surviving?

The Posttraumatic Growth Inventory (PTGI: Tedeschi & Calhoun, 1996) was selected as the main measure of posttraumatic growth for this study.

Results from the literature

Differences in posttraumatic growth according to age at the time of event are often not tested; when they are tested, there is usually no effect of age on growth. (Lehman, Davis, DeLongis, Wortman, Bluck, Mandel, & Ellard, 1993; Maercker, Herrle & Grimm, 1999; Collins, Taylor, & Skokan, 1990; Tedeschi & Calhoun, 1996; Polatinsky & Esprey, 2000; Krizmanic & Kolesaric, 1996.)

As far as the relationship between event severity and posttraumatic growth is concerned, Table 1 summarizes mean PTGI scores reported in various contexts over the whole range of severity for a number of published studies. An inverted-U relationship between severity and growth can be made out, according to which medium stress produces the highest average growth.

Table 1: Mean overall scores on the PTGI in different studies

Study	Subjects	Presumed level of stress in comparison to other studies	Scoring system if not standard PTGI scoring (0,1,2,3,4,5); mean	Mean PTGI score (transformed from non-standard scale where necessary[2])
Tedeschi & Calhoun (1996), third study	Students who had experienced a stressful event (events such as relationship break-up and motor vehicle accidents)	medium		M = 83.16
"	Students without such events	low		M = 69.75
Calhoun, Cann, Tedeschi, & McMillan (2000)	Students who had experienced a major traumatic event	medium		M=76.5
Tedeschi & Calhoun (1996), first study	Students who stated they had experienced a significant negative life event	medium		M = 75.18 for women and M = 67.77 for men
Maercker & Langner (in press)	Dresden bombing night victims 50 years later	high	Three-point scoring (1,2,3)[3] M = 48.7	M = 69.3
Polatinsky & Esprey (2000)	Parents who had lost a child	high	6-point scale scored from 1 to 6. M= 83.5 (mothers); 79.3 (fathers)	M = 62.5 and 58.3 respectively.
Peltzer, 2000	Criminal victimisation in an urban community in South Africa	high	6-point scale scored from 1 to 6. M = 61.3	M = 40.3

Most of the people in the present study had experienced not one, but several traumatic events, moreover in a particularly stressful and threatening war and post-war environment over a period of several years. This would place them well on the downward slope of an inverted-U, leading to a specific hypothesis for the present study of lower overall growth compared to other studies.

2 Transformations of this kind should be treated with caution.
3 Personal communication, January 2001

Hypotheses

1. The psychometric properties of the translated scale are adequate.
2. Age has no effect on posttraumatic growth.
3. The mean overall score on the PTGI is rather lower than those reported in studies with survivors of other types of extreme stress.

Method

Instruments

Socio-demographic information

Socio-demographic information was assessed with a separate questionnaire. Of these variables, only age was analyzed for the present study.

PTGI

The original version of the instrument was translated, and adapted where necessary.

Sample and data gathering

The data for the present study is extracted from data collected for a larger project conducted by our Institute in 1998 and 1999, which is described in more detail in Powell, Rosner & Butollo (2000). Inclusion criteria were: adults between 16 and 65 years old who lived in former Yugoslavia for most of 1980-1991, living at the time of interview (1999) in Sarajevo, but who had lived outside Sarajevo for more than 12 months between 1991 and 1995.

Two samples provide the data which is analyzed in the present study: 75 former refugees who had taken refuge in countries outside Former Yugoslavia for more than 12 months between 1991 and 1995; and 75 displaced (or former displaced) adults now living in Sarajevo who did not take refuge outside Former Yugoslavia. The sample of internally displaced persons includes some who were displaced during and after the war but who have now returned to their pre-war accommodation. Both groups had experienced a wide range of war experiences. Although the former refugees in the first sample had spent an average of M = 4.02 years outside former Yugoslavia, most had also experienced severe war stress (M = 17.42 months in a war zone) before they left the country. In most cases they lost family members in the area of former Yugoslavia while they were abroad. The samples were stratified to ensure an approximately equal number of each sex and in three age groups.

People targeted for inclusion in the study were selected at random from lists prepared by sixteen Local Councils ("Mjesne Zajednice") in Sarajevo.

Interviewers were pairs of final year and third year students of psychology.

Sample characteristics

Some data were missing for the PTGI, leaving a total of 136 valid questionnaires. The samples are described in Table 2.

Table 2: Sample description

Sample			age group (years)			Total
			16-30	31-45	46-65	
Former refugees from outside former Yugoslavia	sex	female	15	12	12	39
		male	11	10	4	25
	Total		26	22	16	64
Displaced or former displaced	sex	female	12	13	13	38
		male	17	7	10	34
	Total		29	20	23	72

Results

Hypothesis 1

Psychometric analyses revealed that the whole scale and the items had good characteristics, except for item 1 ("My aims in life changed in comparison with before the war").

A preliminary factor analysis showed that the five original factors could be partially reproduced. An exploratory analysis then revealed a better three-factor solution which was roughly interpretable in the terms of the original conceptualisation by Tedeschi & Calhoun (1995).

In the following analyses, in order to facilitate comparison with other studies, the overall scores were further scaled by 21/20 to allow for the deletion of the problematic item 1. Item scores were then further corrected by multiplying by 5/4 in order to make them comparable with the original instrument, which used a 6-point Likert scale rather than our 5-point scale.

Hypothesis 2

The second hypothesis was that age has no effect on posttraumatic growth.

The means of the overall score on the PTGI were compared in a one-way analysis of variance with age as factor. Scores were lower for the oldest age group and highest for the youngest age group ($p = 0.01$).

Hypothesis 3

The last hypothesis was that the mean overall score for the PTGI is rather lower than those reported in studies with survivors of other types of extreme stress.

The overall mean of 44.10 was much lower than reported in most other studies. Former refugees (N = 64) reported significantly more growth than displaced persons, $p < 0.05$.

Discussion and Conclusions

While the factor structure of the original instrument could not be perfectly reproduced, a subsequent exploratory 3-factor solution for this sample could be well interpreted in the terms of literature in this area. The mean item score of around 1.7 on the five-point scale used in the present study corresponds to an answer rather closer to "moderately" than "a little", so on average our respondents were not rejecting out of hand the idea of posttraumatic growth. However, the overall corrected means are nevertheless very low in comparison with other studies. It seems unlikely that these low scores can be purely ascribed to cultural differences existing before the war. Rather, it seems plausible that the process of adaptation to terrible events has been hindered in the population studied not only because of the unusual accumulation of traumatic events but also because not only the individuals themselves but also the micro- and macrosystems surrounding them, have been shaken, changed or destroyed.

There was a strong age effect, especially for the first factor. One possible interpretation would be that it is only unusual or exceptional older individuals who are in a position to perceive significant benefit from further traumata after having already come to terms with their "fair share" of other lifetime stressors and traumatic events.

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Psychological disorders in soldiers during the war

Slobodan Pavlović & Osman Sinanović

KMC Psychiatric Clinic, Tuzla, Bosnia and Herzegovina

Theoretical background

Nervous breakdown in soldiers in war is an unavoidable element of the war. In all wars conducted in 20th century, losses caused by psychological disorders were huge. Grinker (1945), Fugley (1978), Wilson (1993, 1994), Kleber and Brom (1993), Van der Kolk and Saporta (1993), Solomonova (1993) and many other authors have highlighted the severity of psychological trauma and the presence of PTSD in soldiers during war. The harmful effects of stress caused by war are widespread, deep and long lasting. The aim of this research is to determine the level of war trauma exposure and symptoms of posttraumatic stress disorder in soldiers during the war in Bosnia and Herzegovina, and to identify changes in the structure of behaviour in those who have developed PTSD and the connection between those changes and certain socio-biographical variables.

Hypotheses

- The number and severity of traumatic experiences impact the development of PTSD
- The presence of PTSD significantly impacts the structure of behaviour and emotional functioning
- The severity of a traumatic response and the development of PTSD are predicted by certain socio-biographical variables.

Sample

The sample includes soldiers from the front lines (N=164), who were divided into two experimental (E-1 and E-2), and one comparison group (K). The E-1 group includes soldiers who sought psychological assistance during the war (N=51); E-2 includes soldiers who were treated at a Psychiatric Clinic after the war (N=51); and the K group includes solders who sought neither psychological nor psychiatric assistance either during or after the war (N=62).

Main instruments used

- Questionnaire: Traumatic experiences and PTSD symptoms, designed according to DSM-IV (1994) criteria, with a five-point scale for assessment of the severity of the traumatic experience and the frequency of PTSD symptoms;
- Profile – Emotion Inventory (Baškovec et al., 1979);
- Life Style Questionnaire, defence mechanisms (Lamovec, 1990);
- MMPI - Minnesota Multistage Personal Inventory (version by Biro, Berger, 1981);

- Questionnaire on socio-biographical data.

Results and discussion

According to the present results, it appears that 60-90% of the subjects from the sample have had between 8 and 11 severe traumatic experiences. If each traumatic experience is understood as a frustration to which a soldier was exposed, and since frustrations tend to accumulate, then we can say that every soldier in the war was exposed to a number of traumatic stimuli, where “traumatic experiences like pieces of shrapnel floating through the body devastate everything they touch” (Moro, 1996).

The results of this research indicate that the soldiers who were exposed to very severe traumatic experiences that are hard to cope with have reported a higher number of different symptoms of posttraumatic stress disorder. Soldiers from the experimental group reported more problems in coping with traumatic experiences, they suffer more PTSD with a high level of stress, and symptoms of intensive fear and hopelessness are much more prevalent than in subjects in the comparison group.

Continual evocation of experiences in the mind and in dreams is the most emphasised in soldiers of group E-2 (74.5-88.2%).

Symptoms of avoidance, i.e., activities that aim to avoid being reminded of stressful experiences, are very evident, with consistently high scores in group E-2 (68.6-79.6%), while group K has significantly fewer soldiers with such symptoms. Symptoms of increased vigilance that are manifested through nightmares and insomnia, irritability, and restlessness are most evident in the soldiers of group E-2 (58.8-86.3%). Disorders in the area of social functioning are most evident in group E-2 (60.8-64.7%).

Severe traumatic experiences and PTSD made a significant impact on the changes in structure of emotional functioning. Soldiers in the experimental group reported a low level of reproductive and incorporative abilities, which are very evident in group E-2, a high level of impulsive and destructive behaviour with aggressive tendencies, and a high level of deprivation. Defensive orientation occurs in the form of projection. The severity of trauma and PTSD are directly linked to the changes in the structure of behaviour. Soldiers in the experimental groups reported pathological characteristics on the MMPI scale of neurotic (E-1) and psychotic (E-2) type, while the results of the comparison group were in the range of normal values (T<70). The majority of soldiers of the experimental group had been mobilised into the army, they were older, they grew up deprived of the love and care of their families, some of them were often physically abused, in childhood they expressed more neurotic difficulties such as fear and bed-wetting, and they had more traumatic experiences in childhood and in the pre-war period.

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Posttraumatic stress disorder in seriously wounded soldiers

Slobodan Pavlović & Osman Sinanović

KMC Psychiatric Clinic, Tuzla, Bosnia and Herzegovina

Theoretical background

War as a specific creation of humankind produces several different traumatic experiences – stressors that influence the human socio-physio-biological structure. The problem of psychological trauma in physically incapacitated veterans has not often been the subject of scientific research. Schurfield (1993), emphasizing the large number of wounded American Vietnam veterans (303,704), pointed to the complexity and severity of this problem. Many veterans displayed very strong avoidance. The focus of the present work is traumatic experiences, the extent of posttraumatic stress disorder, secondary symptomatology, and changes in the structure of personality features in soldiers who, apart from having experienced psychological trauma, have been seriously wounded.

Hypothesis

Those soldiers who apart from psychological trauma were seriously wounded during the war have a more difficult time coping with the traumatic experiences and more often suffer from PTSD: their psychological pain is obscured by a somatic one.

Sample

The sample includes soldiers (N=51) who were treated at a psychiatric clinic after the war (1995-96). The sample is divided into three groups:

- Group A – soldiers who suffered psychological trauma and were treated as inpatients in hospitals (N=12);
- Group B – soldiers who suffered psychological trauma and were treated in outpatient units (N=23); and
- Group C – soldiers who apart from psychological trauma have suffered serious bodily injuries (N=16).

Main instruments used

- Questionnaire on Trauma and Posttraumatic Stress Disorder, constructions designed in accordance with DSM-IV criteria, with a five-point scale for assessment of trauma severity and frequency of PTSD symptoms;
- MMPI - Minnesota Multi-stage Personality Inventory (Biro & Berger, 1981);
- Plutchik's Profile – Emotion Inventory (Baškovec et al., 1979);
- Kellerman's Lifestyle Questionnaire (Lamovec et al.,1990);
- Questionnaire on socio-biographical data.

Results and discussion

- The average age of the subjects in the sample was 34.3 years. 66.7% of them had completed secondary school; 86.3% were married; 70.6% lived in the countryside; 74.5% joined the army on a voluntarily basis.
- There was no significant difference in the results obtained among groups with regard to socio-biographical variables.
- According to results obtained in this research, there was no significant difference between groups with regard to the number and severity of traumatic experiences: $p>0.05$.
- Most of the soldiers had experienced several severe traumatic experiences with a high level of severity. 88,6% of the soldiers spent over a year in the trenches or in action, 94% faced immediate life jeopardy, 89% witnessed killings of fellow soldiers, and over 70% of the soldiers had between 10 and 13 severe traumatic experiences, whose severity on a five-point scale was higher than the mean, 3.7.
- The experiences that are most difficult to cope with are death of fellow soldiers and immediate danger to life. These results confirm earlier research conducted by Kleber and Brom (1993) who stated that the nature and quality of the relationship between the survivor and the dead person are of great importance in coping with the pain. The closer they were, the harder a time the survivor will have in coping with his pain. Severity, proximity and duration of traumatic experience were very important factors in the development of posttraumatic stress disorder.
- Soldiers who suffered a high degree of traumatic experiences reported a significantly higher number of different symptoms of posttraumatic stress disorder.
- Symptoms of intensive fear, hopelessness or horror were reported by the vast majority of soldiers (78.4 – 82.4%), so was thinking and dreaming about such experiences (74.5-88.2%).
- Soldiers who apart from psychological trauma were also seriously wounded suffer more posttraumatic stress disorder than soldiers who suffered only psychological trauma.
- 88.9% of the seriously wounded soldiers suffer complete or incomplete PTSD. Kamenchenko and Vorobev (1992) and Green et al. (1993) in their works have pointed out the overwhelming role of PTSD in disabled persons, while Krizmanić (1992), reported PTSD symptoms in only 12.6% of war veterans in Croatia.
- The severity of traumatic experiences and the extent of PTSD symptoms are directly related to the extent of neurotic symptoms (MMPI), which appear as secondary symptomatology of PTSD. There were significant differences on the MMPI scales between the groups. Group B, soldiers who have suffered psychological trauma only, and are in out-patient care, report significantly more neurotic difficulties, i.e. have higher scores on the Hs, Pa, and D scales, report dominance of psychosomatic symptoms with tendencies towards a paranoid interpretation of events, and depressed behaviour. Group "A" reports a tendency towards psychotic behaviour, and the Pa, D, and Sc scales indicate paranoia and schizophrenia features with a high level of depression (T>80), while group "C",

i.e. soldiers who were seriously wounded, have a tendency towards somatization and hypochondria (T=74). The results on the other dimensions of the MMPI scale are within limits of normal values T< 70.

Conclusion

Soldiers were exposed to many different seriously traumatic experiences in the war. Soldiers who apart from psychological trauma were seriously wounded suffer from more chronic symptoms - complete or incomplete PTSD - than soldiers who suffer from psychological trauma only. Their psychological pain is usually manifested through somatic difficulties, primarily some form of hypochondria. This domination of the physical over the psychological, and a possible fixation on the physical, incorporates a danger that the traumatised person uses the physical pain to conceal the psychological. In centres for physical rehabilitation, the focus is physical recovery alone. Therefore, in the physical rehabilitation of psycho-physically traumatised soldiers it is necessary to apply an inter-disciplinary approach: in other words, psychotherapy should be applied as well physical therapy. The only way to return a person to normal life is to apply part physical medicine, part psychiatry, part clinical psychology and part neurology.

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The role of depressive state in suicide attempts in patients treated at a psychiatric clinic during the war

Nurija Babajić & Zihnet Selimbašić

KMC Psychiatric Clinic, Tuzla, Bosnia and Herzegovina

Goal

The aim of this work is a systematic and organised presentation of the prevalence of depressive disorders among subjects who tried to commit suicide.

Material and methods

This clinical survey involved 199 patients who were treated at the Psychiatric Clinic in Tuzla due to suicide attempts between June 1, 1992 and November 30, 1995. Both non-displaced and displaced populations of both genders over 15 years of age were included. The diagnostic criteria of illness used were in accordance with the Croatian translation of ICD-10 were used.

Results and discussion

Table 1: Division according to diagnostic group (N = 94)

Diagnostic group	N	%
Depressive disorders	32	34,9 %
Acute reactions to stress accompanied by depressive disorder	18	19,0 %
Posttraumatic stress disorder with depressive symptoms	17	18,0 %
Mixed anxiety-depressive disorder	10	10,6 %
Reactive psychotic depressive disorder	12	12,7 %
Endogenous depression with psychotic symptoms	3	3,2 %
Bipolar affective disorder with psychotic symptoms	2	2,2 %
Total	94	100,0 %

Depression disorders have a very important, if not the most important impact on suicide attempts. Out of the total number of suicide attempts in our sample (199), 94 subjects (47.2%) were diagnosed with a depression disorder.

Of these, 62 (65.9 %) were women and 32 (34.1 %) were men over the age of 15. As far as residential status is concerned, 48 (51.1 %) were non-displaced, and 46 (48.9 %) were displaced persons .

Of diagnostic categories, the most frequent were non-psychotic depressive disorders in comorbidity with other disorders (83.5 % of those diagnosed with depression).

It is striking that over one third of persons attempting suicide received a diagnosis which included posttraumatic stress disorder or acute stress reactions.

Conclusion

War as the most important socio-pathological phenomenon and the most serious traumatic experience presents a very serious suicide risk factor.

In our study, women were more likely to commit suicide than men.

Over one third of persons attempting suicide received a diagnosis which included posttraumatic stress disorder or acute stress reactions.

It is always hard to predict suicidal intentions in persons suffering depression; therefore, psychiatry should treat such cases with special care and act preventively with early psychiatric treatment.

Repeated suicide attempts among patients treated at a psychiatric clinic during the war

Nurija Babajić & Zihnet Selimbašić

KMC Psychiatric Clinic, Tuzla, Bosnia and Herzegovina

Introduction

Most suicidologists agree that the category of people who have made a suicide attempt has a subgroup of repeated suicide attempts (recidivists), which is a particularly high-risk group (Biro, 1982).

War is a phenomenon that poses the great danger for every person because it leads to changes in the psychological, physical, economic and ecological state of any population affected by war activities. Kapamadžija et al. (1990) reported that psychosocial and socio-cultural factors such as separation from family, missing family members, displacement, war uncertainty, life threats, lack of prosperity, and loss of moral and ethical qualities are motivational factors for suicide.

Aim

The aim of the present work is to note the number of patients who made repeated suicide attempts during the 1992-1995 war and the time between the first and repeated attempts in non-displaced and displaced patients who were treated at the Tuzla Psychiatric Clinic.

Subjects and methods

26 patients, displaced and non-displaced, those who had been hospitalised after a suicide attempt, and those who had also previously made at least one other suicide attempt were analyzed. They were treated at the Psychiatric Clinic between June 1, 1992 and November 31, 1995. All patients were from the Tuzla Canton and were over 15 years of age. All patients were analyzed using case history, psychiatric interview, hetero-anamnesis and social anamnesis.

Results and discussion

Of the subjects with who had made a repeated suicide attempt, 61.6 % were male, and 38.5 % were female.

In the majority of cases, the repeated suicide attempt occurred 3 to 5 years after the previous attempt.

Our results showed that the war and earlier suicide attempts are very important factors in terms of motivation for future suicide attempts. Earlier suicide attempts are a potentially serious source of new suicide ideation.

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DESNOS, coping and defence mechanisms

DESNOS - disorders of extreme stress not otherwise specified

Mirjana Pernar, Tanja Frančišković & Ljiljana Moro

Centre for Psychotrauma, Psychiatric Clinic, Rijeka, Croatia

Theoretical background

The seven main DESNOS clusters according to Van der Kolk are as follows:

I. Alternation in Regulation of Affect and Impulses

II. Alternation in Attention and Consciousness

III. Somatisation

IV. Alternation in Self-perception

V. Alternation in Perception of the Perpetrator

VI. Alternation in Relations with Others

VII. Alternation in System of Meaning

Method

Sample

N=150 traumatized persons (combat trauma) - age 25-45

Instruments

- DESNOS Questionnaire
- coping strategies Questionnaire
- defence mechanisms questionnaire:
  - - reactive formation - compensation - avoidance
  - - negation - projection - social isolation
  - - regression - intellectualization
  - - repression - displacement

Results

- full DESNOS criteria are displayed in 5 % of the traumatized clinical population
- there are no underlying coping strategies specific to either current or lifetime DESNOS
- there is a significant difference between high and low DESNOS tendency in projection and displacement defence mechanisms which are used more frequently in the high tendency DESNOS group

- defences such as negation, regression, compensation and intellectualization correlated negatively with current DESNOS tendency
- the capacity for psychological compensation is low in both high and low DES-NOS tendency groups

Ethnic distance in the post-war period in a multiethnic society

Slavica Adamović

Centre for Social Work, Temerin, Serbia and Montenegro

Theoretical background

Emory Bogardus used the term "social distance" as a theoretical framework for the study of national and racial relations in the USA in the 1920s. He defined this term as a "different level of understanding and sensibilities among groups" and determined over seven specific relationships among members of different groups. Most authors defined social distance using the Bogardus scale or a modification of it as a starting point. We did the same in this research, i.e. we applied an adapted scale of social distance. Social distance is the distance in a society between groups, individuals or values. Ethnic distance is the social distance present in ethnic relationships. Ethnic distance studies in our country started in the 1950s. Until the 1990s, results reported a very low level of ethnic distance among members of different ethnic groups, expressed also in the frequency of the most intimate of intergroup relationships, i.e. marriage. The level of ethnic distance has a positive correlation with ethnocentrism, authoritarianism and religion, but on the other hand, it has a strong negative correlation with education and age. As for gender, the results reported less distance in men than in women. At the beginning of the 1990s, the ethnic distance among people of former Yugoslavia increased, possibly because of the war. If this assumption is accurate, we could expect that the ethnic distance would gradually decrease. If so, that would confirm the thesis that international hatred in former Yugoslavia was caused by the war, as opposed to the thesis that intergroup hatred caused the war (Biro, 1994).

The aim of this study is to determine whether ethnic distance exists between the citizens of Novi Sad and Roma, Albanian, Croat, and Hungarian people.

Hypotheses

As starting points for this study, the following hypotheses were used:

- Citizens of Novi Sad have distinct ethnic distance towards all examined ethnic groups.
- Subjects will express a higher level of distance towards all different ethnic groups when it comes to close relationships.

Sample and methods

The study was conducted in the first week of October 1999. The method used was standardised interviews, which were applied to a representative sample of 100 citizens of Novi Sad. The sample included quota and criteria such as gender, age and education. The sample had the following characteristics: 43% of the subjects were

up to 35 years old, 32% of the subjects were of the ages between 36 and 55, and 25% of the subjects were over 56 years of age. The sample was not selected for ethnic background and thus included quite a large number of minorities such as Hungarians.

6% of the subjects completed seven grades of elementary school; 25% of the subjects completed elementary school only; 10% of the subjects completed trade training; 35% of them completed secondary school and 25% had a university degree.

Of those examined, 44% were male and 56% were female, which is minimally different from the general population of Novi Sad. The sample was representative in terms of education, but it was significantly different in terms of age – the subjects were considerably younger than the population generally.

A modified Bogardus scale was used for the examination of ethnic distance. It asks whether a member of any of the listed ethnic groups would be accepted in the following social relationships: a citizen of Serbia, a neighbour, a boss, or a marriage partner.

Results

The results obtained confirmed both hypotheses, as expected. The subjects reported ethnic distance towards all the groups, although the level of distance towards different groups differed.

The highest ethnic distance, in terms of all proposed relationships, is reported towards the Albanians, then towards the Roma, the Croats, and the Hungarians.

Discussion

Comparing the ethnic distance towards the Albanians reported in this study with the results of an earlier study conducted on the territory of Serbia (Biro, Popadic, 1998), and with the results of a study conducted in Vojvodina (Biro, 1997), one can conclude that reported ethnic distance is significantly lower in the current study than in the previous studies.

The highest ethnic distance towards the Albanians could be explained by long-standing broken international relationships. Globally, decreased ethnic distance towards all examined groups in comparison to the results of earlier studies could be attributed to an urban multinational place such as Novi Sad.

As to the expression of ethnic distance, the Roma are in second place. They are not seen as a group that endanger anyone as a boss, a neighbour, or citizen of Serbia. Lack of marriage with this group could be a consequence of the perception of a different social and cultural level as well as a different lifestyle characteristic for this group.

Ethnic distance towards the Croats in relation to earlier studies is significantly lower. In the above-mentioned study conducted in 1998, 57.8% would refuse to marry a Croat, and in the 1997 study, that figure was 23%. In the present study, only 10% would not marry a Croat, only 5-6% of them would not accept a Croat as their boss

or as a citizen of Serbia, and even fewer would not accept a Croat as their neighbour. Is it surprising to have such low ethnic distance between peoples who were at war, or can such low ethnic distance be considered to be a logical consequence of the aforementioned hypothesis that the war within the territory of former Yugoslavia caused intergroup hatred which will reduce as time passes or will bottom out at 10%, bearing in mind that 10% of the population of every society has extreme nationalistic attitudes? Future studies will answer this question.

The lowest ethnic distance was reported towards the Hungarians. This distance could be a consequence of a longstanding shared life within the same territory, mutual contacts and/or it could be due to the fact that the survey was conducted in multiethnic environment.

In addition, the overall low ethnic distance could be attributed to the structure of the sample with regard to the age of the subjects, which appeared to be a very significant variable in earlier studies, or to the fact that this study was carried out in an urban environment.

Conclusion

On the basis of the results obtained, one can conclude that the citizens of Novi Sad do experience ethnic distance, and that this is expressed differently towards different ethnic groups. However, that distance was significantly lower than earlier as shown in results obtained in the broader region of Vojvodina and Serbia.

Mental illness as a frequent psychological consequence of war

Slađana Kočevska

Health Centre, Zaječar, Serbia and Montenegro

Aim

The main goal was to establish the most frequent forms of mental illness in persons directly or indirectly exposed to war. A retrospective exploration of personality structure was also performed, in order to determine its influence on the development of mental illness.

Sample

This study investigated approximately 150 persons, all of whom were directly or indirectly exposed to the war, and who were divided into three groups:

- Persons who did not show any signs of mental illness before the war, but who were diagnosed as mentally ill after the war;
- Persons who were in psychiatric treatment before the war;
- Persons not diagnosed as mentally ill after the war.

Instruments

The following psychological tests were used for diagnosis of mental illness: LOBY, interview, Wechsler individual intelligence test, and the MMPI, TNR, and Mahover personality tests.

Results and conclusions

Neurotic and acute depressive phenomena are the most frequent forms of mental illness (especially amongst persons who were without psychological diagnoses before the war). Acute psychotic phenomena are the rarest form of mental illness. Persons with a previous psychiatric diagnosis show an increase in primary discomfort together with new symptoms. Certain personality characteristics are related to higher symptomatology, namely emotional lability and immatureness, passiveness, pessimism and introversion. Persons who were under direct or indirect influence of war but without mental illness are emotionally more mature and stable according to personality tests, with higher scores for optimism and extraversion.

Ways of coping with stress induced by war and their correlations with the five-factor personality model, tested on a sample of employed women

Nataša Hanak

International Aid Network, Belgrade, Serbia and Montenegro

Theoretical background

- Five-factor personality model
- Model of 12 distinctive ways of coping with stress

Hypothesis

- The process of coping with stress during the NATO bombing could be described by at least some of the coping dimensions of the initial model.
- The ways of coping with stress used are connected with the robust personality dimensions.

Sample

109 women from Belgrade, Pančevo and Lazarevac, who were employed during the NATO bombing.

Main instruments used

NEO PI – R instrument, designed by Costa & McCrae, measures five personality dimensions: neuroticism, extroversion, frankness, cooperation and conscientiousness.

A questionnaire for assessment of styles of coping was designed especially for this research, based on the COPE questionnaire designed by Carver, Scheier & Weintraub. As with COPE, our questionnaire measures 12 styles of coping:

- active coping,
- planning,
- suppressing other activities,
- refraining from activities,
- seeking social support (for practical or emotional reasons),
- focusing on emotions and their expression,
- refraining from certain behaviour,
- refraining from certain mental activities (distraction),
- positive reinterpretation and development,
- denial,
- acceptance,

- turning to religion,
- and as an additional category it measures use of tranquilizers, alcohol, cigarettes. From the 78 items, 43 entered the analyses. The research was carried out during the NATO bombardment of Yugoslavia, i.e. April 28 to May 18, 1999.

Procedure/Methods

Non-experimental research

Statistical analysis of results

Factor analysis, canonical correlation analysis

Results

Using analysis of main components, a general factor of coping emerged, i.e. the subject to be measured in this questionnaire. 43 items load on this factor. This shortened questionnaire is reliable – Chronbach's alpha is 0.92.

Interestingly, the items excluded from further analysis as they were not related to the general coping factor were all items with content that describes different kinds of mental distractions from problems, and in addition most referred to positive reinterpretation and personal development, acceptance, restraint from actions and giving up coping on the behavioural level. The items on these scales in the study conducted by Carver, Scheier and Weintraub had the weakest loadings on their corresponding factors. Apparently, these suggested dimensions of coping were not homogenous. The attempt to operationalise those coping strategies was also unsuccessful in our questionnaire. The main components analysis, which was carried out in the abbreviated version of the questionnaire with the remaining 43 items, produced four psychologically recognizable factors.

The first factor reflects an orientation to experiences which are indicators of distress – helplessness, weakness, panic, anxiety, and exhaustion. The aforementioned neurotic symptoms are accompanied by difficulty in adjusting, failure to deal with the problem, and taking tranquilizers. Although this factor mostly consists of coping items directed to emotions, it would be wrong to give it that name. This factor is a measure of an outcome of coping, i.e. distress and unsuccessful adaptation to a stressful situation rather than a style of coping.

The second factor is "problem orientation". An overview of the content of the items loading on this factor reveals a system of reactions representing attention to problematic situations. This is reflected in a process of collecting information, which is a significant aspect of control in situations that cannot be influenced; postponing daily activities resulting in increased involvement in the problematic situation and subordinating the life rhythm to it; thinking and planning about possible activities that are to be carried out in order to resolve the problem, i.e. reducing its negative effect. Finally, these reactions are followed by awareness of disruption of normal life and the significance of those things that we took for granted before the war. Although the described ways of coping represent an adaptable, rational and active approach to

the problem, they are not directed towards redefinition of the situation. In other words, this way of coping is socially desirable, conventional and even obsessive.

Orientation towards religion is the third and most consistent factor, as was also the case in the study conducted by Carver et al., but the question is whether its psychological effect on coping with stress is comparable with the effects of the other components. This way of coping with stress is not so frequent in the subjects of our sample.

Table 1. Coefficients of canonic correlations and their significance:

	Rho	Lambda	Chi-square	df	sig.
1	.606	.342	74.130	20.000	.000
2	.595	.539	42.587	12.000	.000
3	.389	.835	12.453	6.000	.053
4	.129	.983	1.161	2.000	.560

Table 2. The first canonic pair

Coping strategies			
	w1	r1	1rxy2
Distress orientation	.992	.964	.584
Problem orientation	-.146	.283	.171
Religion	.256	.440	.266
Social support	-.101	.271	.164
Personality features			
Neuroticism	.941	.950	.575
Extroversion	-.261	-.618	-.374
Frankness	.072	-.294	-.178
Benevolence	.211	-.036	-.022
Conscientiousness	.108	-.237	-.143

The last factor is seeking social support for emotional or instrumental reasons. Its content is psychologically unambiguous.

Analyzing the canonical correlation, two statistically significant canonical correlations between the pairs of canonical variables of both groups resulted, together with one borderline significant correlation that was also taken into consideration for the purposes of the interpretation (see Table 1).

The first canonic variable (see Table 2) from the group of coping factors is characterised by an increased level of general reactivity. This variable is mostly defined by personal experiences, i.e., a group of distress symptoms such as helplessness, panic, fear, etc. In fact, we could say that the aforementioned group of reactions is an alternative measure of neuroticism. Increased problem orientation and interaction with other people is just another attempt at coping with and reducing the fear and helplessness. This (neurotically) modulated orientation towards religion is, in fact, just another neurotic symptom. The described ca-

nonic variable correlates 0.60 with the canonic variable of the second group that is characterised by increased neuroticism and introversion. Neurotic introverts are more oriented towards their internal experiences, which are influenced by negative emotion. Symptoms of helplessness, fear and panic are decreased in frank and conscientious people, although the effect of frankness is deceptive: low aggressiveness and increased conscientiousness increase levels of symptoms so the effect of introversion in reality is significantly lower than it seems.

The results are in accordance with the hypothesis that neurotic persons are more vulnerable, similarly to results obtained in animal experiments according to which aggressive reactions decrease the impact of stressful events.

The second canonic correlation shows that reserved and benevolent and conscientious persons are almost completely problem-oriented (see Table 3). If we recall the content of the factor "problem orientation", it will become apparent why this kind of reaction is characteristic for inflexible persons with a very low level of aggressiveness and increased level of conscientiousness.

Table 3. The second canonic pair

Coping strategies			
	w1	r1	1rxy2
Distress orientation	.090	-.163	-.097
Problem orientation	-1.079	-.881	-.524
Religion	.344	.148	.088
Social support	.247	.053	.032
Personality features			
Neuroticism	.023	.160	.095
Extroversion	-.189	.168	.100
Frankness	.827	.725	.431
Benevolence	-.480	-.469	-.279
Conscientiousness	-.369	-.552	-.328

Table 4. The third canonic pair

Coping strategies			
	w1	r1	1rxy2
Distress orientation	-.416	.038	.015
Problem orientation	.170	.342	.133
Religion	.215	.407	.158
Social support	.953	.914	.355
Personality features			
Neuroticism	.667	.005	.002
Extroversion	.706	.664	.258
Frankness	.317	.542	.210
Benevolence	.553	.507	.197
Conscientiousness	.354	.215	.083

The third canonic component in the area of coping strategies describes an increased level of non-neurotic reactions. The component is almost completely defined by orientation to interaction with other people; problem orientation and religious orientation are socially modulated (see Table 4). Neuroticism is a very powerful suppressor of these mechanisms. It is very difficult to explain this high canonic coefficient (w) of

neuroticism. The first and third canonic pairs are distinguished by extroversion and frankness rather then by neuroticism.

Discussion / Conclusion

The results show the expected relations between personality dimensions and approximate categories of coping with stress in a war environment.

The experiences of migration and acculturation as reported by displaced people from B&H (Bosnia and Herzegovina) living in Vienna (Austria)

Andrea Kučera & Brigitte Lueger-Schuster

Department of Clinical Psychology, Institute for Psychology, University of Vienna, Austria

Background

According to estimates and registration data of the Austrian Ministry of Interior, more than 100,000 people who fled or were expelled from Bosnia and Herzegovina (B&H) sought refuge in Austria between 1992 and 1995 as a result of the military conflict.

Approximately 65,000 of these refugees successfully integrated into Austrian society.

Another 11,000 continued migration from Austria to other countries such as the U.S.A., Australia or Canada. About 12,000 returned to their country of origin after the war (Sitz, 1999).

Aim

To inquire into the psychosocial living conditions in the year 2000 of Bosnian refugees who sought refuge in Austria as a result of the war. The aim of the investigation was to throw light on the experiences of migration and the acculturation of these displaced people living in Vienna.

The questionnaires

We used an *adapted questionnaire*, which was designed and used by Karlegger (1996) in a study of Bosnian female refugee women in a refugee camp in Vienna, to assess the current psychosocial living conditions of Bosnian refugees in Vienna. The questionnaire inquires into socio-demographic data, stressful situations, duration of stay and housing in Austria, employment possibilities and the evaluation of employment in Austria, learning German, and visits to B&H.

Integration was measured using an *Acculturation Scale* (developed by Knipscheer, Mooren & Kleber, 1997). The scale consists of seven subscales which measure e.g. “traditions, customs”, “losses”, “adaptation problems”, “social integration” and “future outlook Austria”.

Procedure

The data for the study were gathered during May and June 2000 in Vienna. Questionnaire administration took place in advice centres, as well as in the current homes

of Bosnian women and men, that is, in community flats, integration-hostels and private flats.

The sample is probably not representative of the total Bosnian immigrant population in Austria. The actual number and the socio-demographic breakdown of the Bosnian population in Austria are not known.

The sample

Altogether 110 women (N=58; 52.7%) and men (N=52, 47.3%) from B&H who were living in Austria because of the war participated in this study.

The Bosnian refugees of the sample arrived in Austria between 1991 and 1996, most of them in the year 1992. The average duration of their stay in Austria is 7.45 years (SD=0.81).

The sample consists of adults aged between 21 and 72 years. The average age of the women in the sample is 37.95 years; the average age of the men is 40.58 years.

About three quarters of the Bosnian refugees are Muslim (73.6%), 10% are Roman-Catholic, 6.4% are Serbian-Orthodox, one person (0.9%) has another denomination and 3.6% are without denomination.

Most of the Bosnians have completed secondary school (68.2%), 23.6% have completed higher education or have been to university, and only 8.2% have completed primary school only (8 years). They are well educated.

Most of them (80.9%) have a permanent residence permit in Austria. 1.8% are de facto refugees who have been granted temporary admission. 3.6% are Convention refugees and 2.7% already have Austrian citizenship.

Results

Stressful events during wartime and today

- The Bosnian refugees experienced traumatic events due to the war, and lost members of the family.
- 85.5% of the Bosnian women and men fled from the war region, 4.5% were deported, and 10% were evacuated from the war region by an aid organisation.
- 36.4% of the Bosnian refugees were injured or attacked in one way or another during the war and 51.8% indicated that someone in their family had been killed or injured.
- Today the Bosnian refugees in Austria suffer from an increase in health problems due to both pre-migration and post-migration circumstances. The Bosnian women and men in general experience more stress than they did before the war.
- 63.6% of the sample have experienced an increase in health problems (physical / mental problems) since they arrived in Austria.
- 76.4% indicated that they lead more stressful lives as refugees than they did before the war.

- 81.8% of the Bosnian men and women have lost or partly lost the means to organize daily life since they began living in Austria.

Life as refugees

Change of accommodation in Austria and current accommodation of the Bosnian refugees in Vienna:

- The Bosnian refugees in the sample changed their accommodation in Austria on average 3.24 times (SD=2.03, minimum = 0 changes, maximum = 12 changes).
- Nowadays 10.9% live in flats in community houses, 30.9% live in integration-hostels and 57.3% of the Bosnian women and men live in private flats (e.g. rented flats) in Vienna.

Learning German:

- The Bosnian women and men of the sample assess their average German language skills as "satisfactory" (M=2.88, SD=1.11).
- 31.8% of the Bosnian refugees did not attend any German course in Austria. 32.7% attended one German course, 15.5% attended two courses and 20% attended three or more German courses.

Employment in Austria:

- Nowadays 76.4% are employed in Austria and 23.6% are unemployed, whereas 78.2% of the sample was employed in B&H.
- Most Bosnian refugees who pursued a job in B&H are overqualified for the jobs they had to accept in Austria. Many of them lost their professional and social status.
- For example, a woman (50 years old) was a lawyer in Bosnia, and now works as a cleaning lady. A man (35 years old) who worked as a tiler in Bosnia now washes dishes in Austria.

Well-being as refugees:

- Half of the sample (50%) has financial difficulties. 34.5% of the individuals have bureaucratic difficulties. 13.6% report an increase of family problems.
- 78.2% of the refugees feel homesick, 84.5% indicate that B&H is always on their mind and in their memories.
- 71.8% do not feel at home in Austria and 55.4% say that life in Austria is not easier than in B&H.

Results of the Acculturation Scale

(Score: 1=strongly disagree; 6=strongly agree)

Maintenance of Bosnian way of life (traditions, customs) in Austria is generally high (M=4.83, SD=0.97). No gender and age-group differences were found.

Losses (homeland, people in the homeland, occupational and social status) are generally high (M=4.73; SD=1.10). Women and men are equally affected by losses. Older Bosnian refugees reported significantly more losses than their younger compatriots ($F_{(3,11)}$=3.75; $p < 0.05$).

Adaptation-problems (difficulties with German and learning new tasks) in Austria are generally medium to low (M=3.07, SD=1.27). No gender differences were found. There is a significant tendency towards younger Bosnian refugees having fewer adaptation problems than their older countrymen ($F_{(3,11)}$=2.66; $p < 0.10$).

Social integration (contact with Austrians) is generally high (M= 4.22, SD=1.10). No gender differences were found. Younger Bosnians feel significantly more socially integrated into Austrian society than older Bosnians ($F_{(3,106)}$=3.56; $p < 0.05$).

The refugees in the sample are undecided about their outlook for the future in Austria (M=3.73, SD=1.18). No gender and age group differences were found.

Some low, but significant correlations were revealed:

- the better the German language skills are, the more the future is seen as being in Austria (r= -0.25).;
- the less they feel like civilians of low status, the more they see their future in Austria (r= -0.30).;
- and the more contact the Bosnian refugees have with the relatives from whom they were separated because of the war, the less they prefer a future in Austria (r= 0.31).

Conclusion

Life as a refugee means a drastic change in the earlier life-situation and brings a series of psychological adaptation problems. Bosnian refugees in Austria have had to clear many hurdles. As reported, various situations were and still remain difficult for the Bosnians to manage and control.

Considering the agony of life in exile, it must be said that the Bosnian refugees in the sample are trying their best to cope with life and to overcome difficulties.

Nevertheless, they waver between staying in Austria and going back to B&H. They are still faced with acculturation problems, which make integration difficult for them.

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Papers on adults: treatment

Who is in treatment? Comparison between Sarajevo adults in psychological treatment and those not in treatment

Psychological adaptation and sociodemographic factors.

Steve Powell*, Amira Gradinčić, Rita Rosner & Willi Butollo

*Munich-BiH Psychology Program (Ludwig-Maximilians-University of Munich, Germany; University of Sarajevo, Bosnia and Herzegovina)

Background

Most research on the psychosocial consequences of war the world over is based either on samples of people receiving treatment (usually psychiatric or psychotherapeutic) or on displaced persons, whether displaced internally or taking refuge in safe countries. A number of factors make it very problematic to generalise research with displaced people to the general population. A much smaller number of studies deal with general population samples, and to our knowledge only a very few studies allowed a direct comparison between those receiving and those not receiving treatment in the non-displaced population. This kind of comparison is important for a number of reasons:

1. In an ideal world, those with the worst psychological distress would receive psychological treatment. Is this the case in Sarajevo, or do other factors, such as level of education or income play a more important role in deciding who actually ends up in treatment?
2. Most of what we know about posttraumatic adaptation is derived from studies of people in treatment. Is the psychological distress experienced by those in treatment similar in structure to that experienced by those not in treatment?

Hypotheses

1. Posttraumatic symptoms make a significant contribution to explaining whether someone is in receipt of psychological help (i.e. people with more symptoms are more likely to be in psychological treatment), but reports of life difficulties *due to* the symptoms make a further contribution, as do indicators of better socio-economic status.
2. Posttraumatic stress is essentially the same phenomenon for people receiving treatment compared to people not receiving treatment. More precisely, the relative importance of the three types of posttraumatic symptoms (re-experiencing, avoidance, and arousal) together with indicators of problems in functioning due to the symptoms is about the same for the two sub-samples.

Sample

The data analysed here are part of a larger study conducted by the Ludwig-Maximilians-University of Munich in cooperation with the Department of Psychology, University of Sarajevo. Although the data gathered included a wide range of indicators of psychological adaptation, this analysis will focus only on posttraumatic symptoms.

Table 1: sample

				Age group on 1. Jan 1998			Group Total
Sub-sample				16-30	31-45	46-65	
	Not in treatment	sex	female	17	17	17	51
			male	14	17	16	47
			Group Total	31	34	33	98
	In psych. treatment	sex	female	23	19	16	58
			male	19	15	22	56
			Group Total	42	34	38	114
Sample total				73	68	71	212

As it was assumed that age and gender are correlates of PTSD, each sub-sample was approximately stratified according to these variables. The numbers in Table 1 show that the stratification was approximately successful. Age groups and gender were defined to reflect approximately the population structure of Sarajevo in 1990, because at the time of the study a detailed demographic description of the population after the war was not available.

Overall inclusion criteria were:

- Adults between 16 and 65 years old
- Now living in Sarajevo
- Living in Sarajevo Canton during the war (i.e. not absent for more than 12 months in the period 1.4.1992 to 31.12.1995).
- Not in an acute crisis
- Literate enough to answer the questionnaires with some help.

The data was collected between February and June 1998. All subjects participated voluntarily and gave fully informed consent.

The sample in psychological treatment consisted of 114 patients participating in some kind of psychotherapy, or psychiatric treatment, or psychological or psychosocial consultation, with at least one session in the last three months. They were approached directly through the staff of seven psychological treatment centres selected to be broadly representative of psychological treatment in Sarajevo. The staff were attending a post-graduate specialisation in trauma psychotherapy at the University of Sarajevo which was supported by the Ludwig-Maximilians-University of Munich. Each participating psychotherapist or counsellor was allocated a quota based on the sample stratification. The interviewers approached each new client presenting after the start of the study until their quota was filled. There was a 100% response rate.

The residents sample consisted of 98 non-institutionalised subjects. Eight pairs of final year and third year students of Psychology at Sarajevo University served as interviewers. All interviewers were trained in the use of the questionnaires. Two pilot studies were performed to insure the appropriate use of the assessment. During the studies on-going supervision for all interviewers was provided. To approach these individuals, a map of the city of Sarajevo was divided into 1 km squares. Two streets from each square were chosen at random. Each pair of interviewers was then given the names of two streets with instructions to find, if possible, a total of eight subjects from these two streets. The interviewers started their search in the evening or at weekends, at the first apartment in the first building and asked the occupants questions to ascertain their eligibility according to the general inclusion criteria and the quotas. Having found suitable subjects in one apartment the interviewers proceeded to the next apartment, interviewing people in a maximum of two apartments per building. They then left that building and moved to the next one in the street. Each pair had a quota for each cell in the stratification table to fill. As it is not known how many people were living in the households where access was refused, a responder rate was estimated by multiplying the percentage of households not refusing access (50 %) by the percentage of people eligible for interview in those households who then finished an interview (65 %), giving a rate of 32 %.

Instruments

- For the assessment of current PTSD symptomatology the PTSD Symptom Scale (PSS; adaptation for DSM-IV: Foa, Cashman, Jaycox & Perry, 1997) in the self-report version was applied. The PSS consists of four parts, which amongst other things assess whether the criteria for PTSD according DSM-IV are fulfilled.
  - Parts 1 and 2 are not analysed here.
  - Part 3 asks about the symptoms of re-experiencing (5 items; criterion B in DSM-IV), avoidance / numbing (7 items, criterion C) and arousal (5 items, criterion D). These subscales are defined in DSM-IV, and could also be broadly identified in this sample (in a separate factor analysis not reported here). The total number of reported symptoms on each scale form the variables analysed here.

- Part 4 includes information on consequences of the symptomatology for important areas of functioning (criterion F).

- Socio-demographic information was collected with a questionnaire constructed for this study.
  - Employment status was coded as follows: 1= fully employed; 0= unemployed, waiting list, housewife, student, training or any other status.
  - Family status was coded as 0 = single, 1 = married or in a long-term relationship.

Results

Table 2: means on symptoms, functioning, and sociodemographic variables

	Not in treatment	In psychological treatment	Group Total	p
	Mean	Mean	Mean	
Re-experiencing	2.23	2.85	2.56	.013
Avoidance	2.35	3.46	2.95	.000
Arousal	2.03	2.32	2.19	.210
Total problems with functioning	1.80	3.12	2.51	.000
Years of education	11.90	12.50	12.22	.097
Monthly income KM	287.90	366.47	329.63	.069
				Pearson chi-squared
In full employment	29.59 %	53.51%	42.45 %	.000
Married or in long-term relationship	55.67%	51.33%	53.33%	.529

As can be seen from Table 2, there are some interesting differences between the sub-samples, particularly on the variables avoidance, problems with functioning, and employment status. (The tests for the last pair of variables are chi-squared rather than t-tests as they involve dichotomous variables.) However these results are hard to interpret in this form as these variables are correlated with each other. Therefore, a logistic regression analysis was carried out with sub-sample membership as dependent variable. The three symptom scales were entered first into the regression. In a second block, the degree of problems with functioning in daily life was added. In the final block, the four socio-demographic variables were added. All analyses were carried out using the statistics program SPSS 10.05.

Table 3: Variables and their coefficients in the three logistic regression models

		B	S.E.	Wald	df	Exp(B)	Sig.
Model 1	Re-experiencing	.048	.111	.186	1	1.049	.666
	Avoidance	.258	.097	7.007	1	1.294	.008
	Arousal	-.158	.117	1.829	1	.854	.176
	Constant	-.398	.264	2.281	1	.672	.131
Model 2	Re-experiencing	.041	.113	.134	1	1.042	.715
	Avoidance	.188	.105	3.202	1	1.206	.074
	Arousal	-.204	.120	2.877	1	.815	.090
	Problems function-ing	.135	.075	3.286	1	1.145	.070
	Constant	-.402	.264	2.316	1	.669	.128
Model 3	Re-experiencing	.003	.118	.001	1	1.003	.982
	Avoidance	.189	.109	2.982	1	1.208	.084
	Arousal	-.156	.126	1.521	1	.856	.217
	Problems function-ing	.129	.078	2.763	1	1.138	.096
	Years at school	.052	.072	.515	1	1.053	.473
	Employment	1.075	.415	6.722	1	2.931	.010
	Family status	-.533	.332	2.573	1	.587	.109
	Monthly income	.000	.001	.000	1	1.000	1.000
	Constant	-1.199	.885	1.835	1	.301	.176

Table 1: tests of model coefficients

		Chi-square	df	Sig.
Model 1	Block	12.821	3	.005
	Model	12.821	3	.005
Model 2	Block	3.380	1	.066
	Model	16.201	4	.003
Model 3	Block	22.028	4	.006
	Model	38.229	8	.000

As can be seen in Table 4, each model was significantly better than the trivial model which uses only a constant, in the case of the final model p = 0.000. However, the final percentage of correct classification due to the third model is quite weak, at 69.1 percent.

In the first model, avoidance makes a highly significant unique contribution. The second model with the introduction of problems in functioning does not represent a signifi-

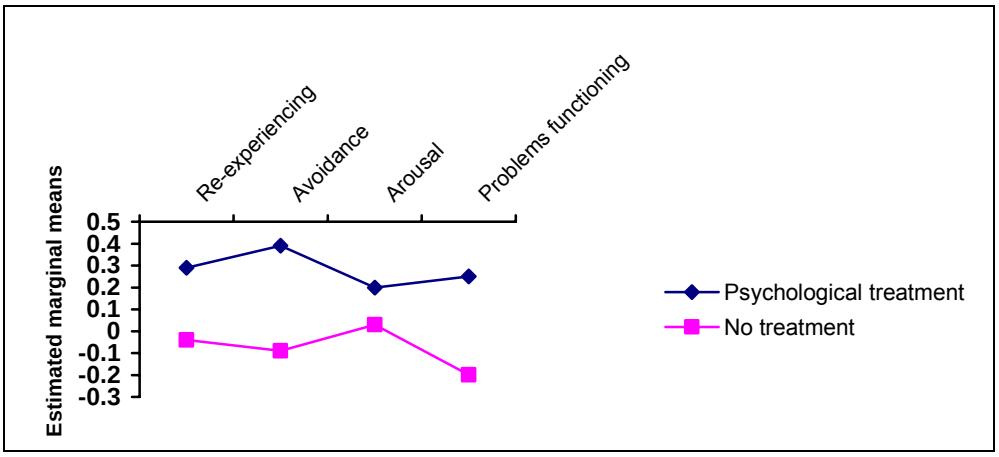
cant improvement over the first (as can be seen in Table 4), suggesting that the large difference in problems in functioning between the samples is explained by the difference in symptoms.

The final model, which adds the sociodemographic variables, represents a significant improvement over the second. However, only employment status makes a significant unique contribution.

This can be interpreted as follows: People in treatment do indeed have higher levels of posttraumatic symptoms, at least as far as avoidance is concerned. This particular result is quite surprising, because the effort of going to receive treatment is not usually consistent with avoidant behaviour. However, in the third model the contribution made by symptoms is no longer significant, because they are confounded with employment status.

For the second hypothesis, the profiles of symptoms and problems in functioning between the two sub-samples were tested to see if they were the same shape using a profile analysis. The critical statistic is the interaction between the sub-sample factor and the within-subjects factor whose levels are the standardised scores on the three symptom scales together with the score for problems with functioning. If this interaction is significant, the profiles are different.

Figure 1: symptom and functioning profiles for the sub-samples



We already know from the previous analyses that those not in treatment are less avoidant and have fewer problems in functioning. What is tested here is not whether the individual symptom or functioning scores are different between the samples, but whether the overall profiles are significantly different. This is in fact the case: the within-subjects interaction between the type of score and sub-sample is significant, p=0.039. This is well illustrated in the profile plot in Figure 1. (As it is necessary to standardize the symptom and functioning scores in order to carry out the profile

analysis, the actual values of the means are hard to interpret; only the differences between the profiles are at stake here.)

Discussion

While posttraumatic symptomatology contributed to treatment seeking, more general variables assumed to be correlated to treatment seeking like socio-economic status yielded no significant results. Only employment status showed a significant unique connection. A possible substantive explanation for this result is that people in employment are more active and more aware of treatment possibilities. Furthermore avoidance may hamper them during their work and they might live in fear of loosing their work because of their symptomatology. In a place were unemployment is high this fear might even exceed fears of confronting the avoidance symptomatology.

Yet there are several limitations to the interpretation of our results.

The samples were stratified; in fact one would expect more women in the advice centres.

This kind of comparison between samples is very sensitive to the degree to which the samples are not representative of their intended populations. The degree to which the first sample is really representative of people not in treatment is open to question. There was quite a high rate of refusals. It is quite possible that those refusing to participate have a higher level of problems because they would have found it painful to talk about them; on the other hand it is equally possible that those who did choose to respond have a higher level of symptoms which motivated them to discuss them. Although there was a 100% response rate in the sample in treatment, the definition of this sub-sample is not representative to the extent that the clients treated by the participating therapists in the study timeframe are not representative of all people in treatment.

The most striking result of the logistic regression, that the differences between the groups are dominated by the fact that more of the people in treatment are also employed, could be trivially due to a selection bias. The people in the non-treatment sample were contacted at home, which means that although the interviewers were instructed to call in the evening or at weekends, the possibility cannot be excluded that fewer employed people were included in the sample, because they were working at the time the interviewers called.

Conclusions

The profiles of symptoms and problems are significantly different between the two samples; in particular, those in treatment have higher levels of avoidance and have more problems in functioning, though this latter difference seems to be explained by the difference in symptoms alone.

It seems that the main difference between the two samples is that those in treatment are more likely to be employed.

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The impact of a mental health program in Bosnia-Herzegovina: interventions and evaluations

Trudy Mooren*, Rolf Kleber, Kaz de Jong, Jadranka Ruvić & Šejla Kulenović

Department of Clinical Psychology, Utrecht University, Netherlands

This study is based on a comprehensive database constructed as part of a mental health project run by Medecins sans Frontieres and HealthNet International. Ten centres provided various kinds of psychological help in the besieged city of Sarajevo as well as Zenica, Travnik and Vitez during and after the war. Since the start in 1994, an intensive monitoring system has documented data on clients, interventions and outcomes. This study reflects the first phase of the project, 1994-1999.

Background

In April 1994, MSF Holland (which was succeeded by HealthNet International) started a large and comprehensive mental health project in Sarajevo. After intensive training of local counsellors and supervisors, the first centres were operational in Fall 1994. In Zenica and the surrounding area in Central Bosnia a similar mental health program commenced in August 1996. At the time, the project numbered ten counselling centres.

The aims of this mental health project have been: to reduce the mental health problems of the people of Bosnia-Herzegovina due to war conditions, or, in other words, to reduce war-related psychopathology by providing health services within the primary health care system, and by employing local professionals. From the start the explicit aim has been to continue interventions and monitoring after the war was over.

In spite of the growing interest in emergency health care there is a striking scarcity of thorough and theory-based descriptions of concrete mental health programs in war-stricken areas. Prior to sophisticated research, an analysis of existing intervention approaches is valuable. More and more, there is a need for monitoring and evaluation data with regard to emergency projects in war-stricken areas. Can data be used to assess whether the goals of a mental health project have really been achieved?

This paper reports on empirical data collected through monitoring clients and interventions in the MSF/HNI mental health project. The analysed data were gathered from the beginning of the project in 1994 until the end of spring 1998. This paper in particular focuses on describing clients and interventions as well as on outcomes of indices of subjective health and of the process of coping with traumatic memories.

Hypotheses

Many of the clients visiting the MSF/HNI counselling centres in the years 1994-1999 will have serious coping and health problems.

The health of clients seen on admission to the centres will improve on average over the years.

There will be a decrease of problems between the start and end of intervention.

Method

Sample

Nearly twenty thousand clients visited the counselling centres. More women than men paid a visit to the centres. This was the case for every counselling centre. Generally, 59.4% of the clients were women; 40.6% men. On average a client was 28.2 years old. Many clients were between 30 and 50 years old, or were adolescents (age group 13-18). Losses and experiences of violence were common among the majority of clients.

Main instruments used

The registration consisted of ten forms. The first form assessed the *demographical and personal background* of the client. Four forms were specifically designed to describe *types of treatment* (e.g. individual treatment, group treatment; short-term crisis intervention and psycho-education). Furthermore, four psychometric instruments were used to assess central characteristics of *mental health, coping with traumatic stress and related issues* (such as the GHQ and IES). For the purpose of this paper, sub-samples of clients who responded to the General Health Questionnaire (GHQ; Goldberg & Hillier, 1979) and Impact of Event Scale (IES; Horowitz, Wilner & Alvarez, 1979) were selected. They consisted of 3,926 and 2,113 clients respectively. Finally, one form especially employed for the *evaluation of the treatment* by client and counsellor was added. Counsellors usually waited until the second or third session before presenting the client the instruments. Data were then entered into the computer. The psychometric instruments were presented twice to the client: both at the start and at the end of counselling.

Other details

As a community-based mental health program, the project directed its activities at several levels: the individual, the community, and vulnerable groups. The forms of assistance provided by the centres were manifold. They ranged from psycho-education and media sessions to crisis intervention and brief treatment. Roughly six types of interventions could be distinguished:

1. Psycho-education sessions and psychosocial activities for vulnerable groups (schoolchildren, refugees, elderly etc.) were organised by the centres in order to alleviate (post-) traumatic stress responses in large numbers of the population, and to support the normal coping process. The cognitive element of giving information on war stress was expected to attract people to come and express their worries, to share their feelings and give each other support.

2. Mass media were used for psycho-education. The aim was to facilitate individual acknowledgement of war-related emotional problems. Radio Bosnia and Herzegovina (Radio B&H) permitted the broadcasting of a one-hour program by MSF counsellors weekly. Radio B&H was received all over Bosnia (including Bosnian-Serb and Bosnian-Croat areas). The radio programs explained the notion of traumatic stress, the normality of the responses, the various reactions, the principle of self-help, the provision of support to others, and the possibilities for professional help. To stimulate curiosity and increase direct support a live, call-in program was put on air. A household survey (Mercer & O'Malley, 1995) revealed that the radio and the general practitioner were the main sources of information about psycho-education for the population.

3. Training programs were designed for the recognition of traumatic stress, symptoms and disturbances, ways of helping, and possibilities for referral. These courses were given to nurses in health centres and hospitals, to professionals and specialists working in emergency rooms and first aid services, and to general practitioners. Besides these medical staff, police officers, fire fighters, the staff of orphanages, and teachers were also trained.

4. Outreach activities were not restricted to psycho-education groups. Socially withdrawn, depressed, or elderly persons were supported through basic social or material help and counselling. To create sustainable support the establishment of links to the surrounding social network received high priority in interventions. Direct support was provided by means of outreach activities to those who recently lost beloved ones, elderly people who were lonely etc. These outreach activities also provided a model for working together, for demonstrating compassion and for giving emotional support to others in the neighbourhood.

5. Immediate support was available through crisis intervention. This intervention consisted of a very basic intake combined with emotional support and some psychological structuring of the event. Psycho-education could be part of the procedure. Crisis intervention lasted for a maximum of three sessions. When help was needed for a longer time, the formal intake procedure had to be executed.

6. Only after a standard intake procedure, clients were offered counselling treatment for a limited period. This intervention was based on principles derived from brief trauma focused therapy (Brom, Kleber & Defares, 1989; Foa, Hearst-Ikeda & Perry, 1995). Basic components of treatment after the intake were: psycho-education (including family members), psychological structuring of experiences, work on control, reconnecting one's experiences to emotions, working on integration and future perspective, and self-help techniques. Examples of

intervention techniques were: relaxation, guided meditation, communication, systematic desensitisation, behaviour prescription. At times, people surrounding the client were involved in order to increase self-help and understanding.

Both individual and group treatment was offered. Group interventions were preferred, especially for secondary benefits such as sharing and providing mutual support. Treatment of mildly traumatised people took approximately 10-15 sessions. The period of treatment was kept short for several reasons. The number of people in need was estimated to be substantial (Jalovčić & Davids, 1993; Unicef, 1994). Long-term treatment would reduce the number of those who could profit from the intervention. A second reason to limit the number of sessions was the focus of intervention: disturbances with regard to war-related experiences (such as (PTSD). Long-term treatment was not considered appropriate (Marmar, Foy, Kagan & Pynoos, 1993). Furthermore, it was not required that the staff should be trained to deal with transference and counter-transference phenomena as established during long-term, intensive psychotherapy. For similar reasons, psycho-pharmaceutics were not prescribed in the centres, in spite of the fact that the custom of using and prescribing tranquillisers was widespread in Sarajevo.

Sessions were mostly conducted by a therapist and co-therapist. After the intake procedure, the client was discussed in the team. Difficult cases were supervised by the consultant. Client registration took place after each session. The end of the intervention was evaluated during a team meeting.

Results

There are three basic categories of clients. First, there is the group of clients with a personal file (N=8826). Most of the clients are assigned to an intervention either *in groups* or *on an individual basis* (N=2928). For almost all of these clients, therapy does not last any longer than three months. There have been 858 groups registered (with group size 2-28 clients; later: 2-12 clients).

The group of clients who receive only short/crisis intervention form the second group (N=4331). Most frequently, short psycho-education is provided to the client. The client is informed about the counselling activities in the centre, or about psychological issues such as stress, nightmares, where to go if in need of psychological help. For short term counselling, clients usually come to the centre (12.3%). In 20.4% of the reported short interventions, acute crisis intervention was needed.

All those belonging to one of these two categories undergo counselling. In addition, there are activities employed by counsellors which can be characterised as psycho-education (and which relate to third group of clients). Some centres have relatively many such groups.

Outcomes of the GHQ and IES have been available only for clients who received individual or group intervention. The results reflect very high scores, especially among people between 30 and 40 years of age. Furthermore, scores seem to increase throughout the years (and in the post-war period), rather than decrease. This may point to a selection of clients with more serious mental health problems, though

counsellors also provide other explanations, such as the general perception of the living conditions in Bosnia as being increasingly harsh and the lack of a positive outlook for the future. Differences between pre- and post- measurements are highly significant over the years.

Discussion / Conclusions

Emergency mental health care is still a very new area. It is also an exciting area where new developments take place and where essential scientific as well as clinical issues play a role. It is not a self-evident intervention and there are several significant issues related to its application.

The outcomes of the IES and GHQ in different Bosnian samples indicate severe stress and burden. The MSF/HNI-data, though without any control group, provide some evidence of the relief offered by intervention. It seems treatment 'effects' are increasing over the years. It is difficult to prove beyond doubt that the interventions worked. Ideally, one needs a waiting list or placebo conditions. Scientifically sophisticated studies are, however, very difficult to conduct in war circumstances. It was possible to create a monitoring system that produced adequate data. Local people took great care to organize this system and were highly motivated. And, in spite of the many sceptical remarks that might be made ('Is the decrease in problems caused by social desirability? Is it a real change?'), relevant symptoms of maladjustment and health complaints were significantly reduced.

The findings presented here are only preliminary. Statistical analyses are ongoing. At the same time, the monitoring of the activities of the counselling centres continues.

Psychosocial education as a model of psychosocial assistance and support in the community

Mirjana Novković

Healthnet International, Bosnia and Herzegovina

Although this paper focuses on work with children, it is included in this section because it provides an illustration of one of the approaches covered in the previous paper.

Theoretical background

One of the specific characteristics of the HealthNet International Community Counselling (HNI CC) service is the facilitation of out-reach activities, such as psycho-education in schools and refugee camps, conducted by multidisciplinary teams (made up of a psychiatrist, a psychologist, and a nurse). This model, developed with the assistance of experts from Holland, is based on the pre-war experience of local experts (programs of mental health prevention in schools) and new discoveries in the field of trauma. After the war, pedagogues and teachers have pointed to hyperactivity, lack of concentration, aggressive behaviour and the use of alcohol and drugs, as the main behavioural problems of adolescents. Since the teachers were not able to provide full psychosocial support to their pupils, they contacted HNI CC. The following topics were presented as a part of the psycho-education:

- Trauma and reactions of adolescents
- Communication skills – risk factors
- Use of drugs and alcohol

Hypotheses

- This model is effective for early detection of emotional or behavioural problems and for prevention of more serious mental disorders of adolescents.
- This model is one of the best ways to reach potential clients (high risk adolescents)

Sample

593 adolescents aged between 14 and 18, students of the high school in suburban parts of Sarajevo during school year 1999/2000.

Method

The psychosocial model has 3 to 8 sessions. The first part (3 sessions) focuses on work in a large group. The average number of participants is 36 per class and each session lasts for 45 minutes. Subjects presented are supported by educational materials (articles, overhead projectors, etc.). During the second part, two smaller groups are created. They participate in workshops of their choice (12 to 15 partici-

pants, 5 sessions, each lasting 90 minutes). Group work and other psychological techniques (individual work, work in pairs, relaxation techniques, etc.) are used for further work on the chosen topics. Two counsellors are responsible for these workshops. At the end of psychosocial activities, all participants fill in the evaluation form that measures the satisfaction of participants.

Results

Results suggest that those who participated in the psychosocial activities were highly satisfied. The model ensures the efficient and early detection of mental health problems of schoolchildren. Some children have continued with individual or group treatment in the Community Counselling program. However, our drug and alcohol prevention programs should focus more on the younger population (primary school children), since teachers and pedagogues emphasize that age as the starting point for drug and alcohol use (especially the latter).

A community-based family liaison and reintegration process

Sandra Kukić*, Momir Šmitran, Sanin Čampara, Nermina Bećirević, Šeila Kulenović-Latal, Šejla Tulić, Aida Hašimbegović-Valenzuela & Minja Mandurić-Bender

*SOS Kinderdorf, Sarajevo, Bosnia and Herzegovina.

This is part of an ongoing CRS intervention program to improve the quality of life of inhabitants of B&H (Bosnia and Herzegovina) through different programs, such as reconstruction, income-generation, agriculture, food projects, micro finance, and community initiative and civil society development. This project is funded by the U.S. Bureau of Population, Refugees and Migration (BPRM).

Introduction

Working on a daily basis with people who suffered from war-related trauma, it is impossible not to notice that existing institutions do not have the capacity to offer sufficient psychosocial support to all those in the country who are in need of it We decided to implement a community-based project. That decision was based on the idea that community counselling promotes healthy development by focusing on clients and their social environment. It follows that family functioning should be an important concern of community counselling. A family-oriented approach helps to meet the needs of the clients in an appropriate way. To address issues of returnees and the reintegration process in a community in transition, a *community intervention* approach was used. Two main goals that inspired our effort were holistic community reconstruction and the reconstruction of the social network, aimed at strengthening the resources of the community in crisis.

Hypothesis

Community-based work of family facilitators significantly aids the reintegration of the returnees into the recipient communities.

Method and sample

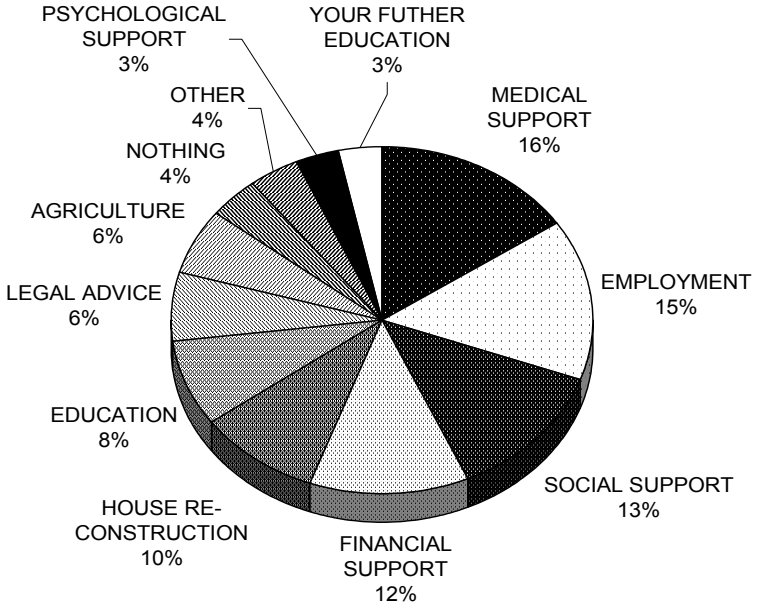
The methodology of the work has not previously been used in a society such as post-war Bosnia and Herzegovina. Ordinary people from the communities were educated to become psychosocial facilitators and they are now the link between those in need of psychosocial help and the professionals in the communities. The present study presents work with 1,796 families in ten communities in B&H. Of 1,796 families in Bugojno, Prozor, Konjic, Kakanj, Vares, Ilijas, Ilidza, Hadzici, Busovaca and Vogosca (a total of 7,053 beneficiaries), there are 504 non-displaced families (families which were not displaced during the war), 833 returnee families, and 459 displaced families. The total sample is significantly larger, but since the project is ongoing, we decided to present only the part which has been analysed to date.

Main instrument used

A specially designed *Family Assessment Battery (FAB). Each FAB* consisted of a family profile assessment, a structured interview and a quality of life questionnaire (QLT). The FAB is adaptable for each type of family, so separate structured interviews are conducted for non-displaced, returnee and displaced families. When facilitators come to the family for the first time, they fill in the FAB. The assessments and questionnaires were adapted to suit the educational background of the families, the mentality in the regions, and the level of understanding concerning awareness of psychosocial needs where material needs have not been met at all. After at least six months of psychosocial facilitation activities, each family was reassessed using the quality of life tool (QLT).

Results

Figure 1: Assistance expected from the community



Results of the QLT

Detailed results are available from the author. Overall, the results show that the community-based work of family facilitators improved the reintegration of the return-

ees on three of the four subscales of the QLT (self; personal fulfilment; surroundings) but not on the fourth (relationships). All the communities showed improvements overall, but some communities improved significantly more than others. Several elements can be considered as the reason for the lack of improvement in some areas in some communities. Since the work is focused on the communities where return is in progress, there are many issues, such as average age of population, tensions in the region, intensity of return, etc. Also, the unmet needs of the population in post-war society are still enormous. Many people of all national and family backgrounds, and regardless of domestic status (returning, non-displaced or displaced) still suffer from a lack of basic material support, including shelter or food. It is hard for many of them to consider any other kind of help they might need when basic needs have not been met. Figure 1 shows what kind of assistance the clients expect.

Nevertheless, the community-based approach is succeeding in increasing the quality of services in B&H overall. Both clients and family facilitators receive psychological support. It is important to stress that facilitators as well as clients suffer from war-related trauma. In a country where every civilian was exposed to war-related traumatisation, it is important to help local people to work on their own traumatic experience. Helping the clients, but helping the helpers as well, is one of the objectives. In the post-war situation during this transition period, institutions in the country do not have adequate resources to meet the needs of the population. The approach reported here is increasing the quality of basic services. Two kinds of global benefits are achieved - one is benefit to individuals and the other is benefit to the community.

Benefit to the individuals is related to de-traumatisation, de-isolation, identification of psychological needs and problems as well as counselling.

Benefit to the community is related to the increase of local initiative: creating a network of local facilitators, representing a link between institutions and beneficiaries; promotion of a community-based approach; increase of co-operation between governmental and non-governmental organisations (GOs and NGOs) and individuals; and creation of a local return support network that will provide psychosocial support to returnees and others in the region.

Sustainable psychosocial support in war-destroyed communities in B&H is a long way away. But the community-based approach might be one of the important steps on that long road.

War torture in B&H (Bosnia and Herzegovina), psychological consequences and rehabilitation

Sabina Popović

Centre for Torture Victims, Sarajevo, Bosnia and Herzegovina

Theoretical background

Definition of torture

According to the UN Convention against Torture, which was adopted in 1948, and accepted by a large number of countries in 1984, torture is defined as:

> *"any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity."*

The Tokyo declaration WMA defined torture in 1975 as:

> *"deliberate, systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make confession, or for any other reason."*

Torture in B&H

Mass torture in B&H was carried out as part of the war strategy of ethnic cleansing and partial genocide of those with different ethnic backgrounds.

The torture was conducted in camps and houses. The same methods of torture were used in cities and in villages, which means that this genocide was planned, and the perpetrators well trained.

The number of people that survived the torture

According to documents and information from the Association of Concentration Camp Victims B&H, around 250,000 people were imprisoned at the beginning of the war. The Serb Army had 572 camps, the Croatian Army 39 camps, and the Bosniak Army 3 camps.

Approximately 39,000 people were killed in the camps, while 195,000 managed to survive. Over 85% of the total number of imprisoned people were Bosniaks, so the Bosniak population had the largest number of victims.

32 types of mutilation and 17 types of murder are noted in the documents.

CTV Sarajevo

As a result of needs expressed by torture survivors and persisting problems of torture and prevention, the Centre for Torture Victims (CTV) was opened in April 1997 in Sarajevo. The Centre was opened with the professional assistance of International Rehabilitation Council for Torture Victims, Copenhagen (IRCT), and financed by the European Commission. To date, some 600 torture survivors have been clients at CTV.

Consequences of torture

Torture leaves psychological, physical and social consequences.

The psychological consequences of torture are very broad: feelings of shame and guilt, low self-esteem, self-respect, nightmares, lack of concentration, memory problems, anxiety, depression, somatic problems, PTSD symptoms and complex PTSD (post-torture syndrome) followed by permanent personality changes. Such changes are the main goal of torture, to imprint on the mind of the person that he/she is ruined, and that he/she will never be the same person again.

Social consequences: these are the result of the damage described above: lack of security, withdrawal, failure to adjust to surroundings, problems in relations with partner, family problems, problems with children, inability to work.

Goal

The goal of this research is to carry out a psychological and sociodemographic analysis of CTV clients in order to gain a better understanding of the consequences of intentional physical and psychological pain.

Method

CTV initiated a research program specific to this population. Later on we will present some sociodemographic characteristics, some psychological/psychiatric consequences of torture, as well as the results of treatment (clinical evaluation).

Sociodemographic and anamnestic analysis

Sample

179 clients participated in the research into the sociodemographic consequences of torture.

Instruments

We used the Identification List and the General Questionnaire on the sociodemographic characteristics of clients. Both instruments were designed according to the specific circumstances of the work with this group of CTV clients. Both instruments were used upon the first visit to the Centre.

Results

According to information from the above-mentioned questionnaires from 179 clients:

- 169 clients or 94.4% were imprisoned in camps;
- Only 10 clients or 5.6% avoided torture;
- 171 clients or 95.5% were forced to leave their homes;
- Only 8 clients or 4.5% left their homes voluntarily.

Four years after the war:

- 14 clients or 8% have returned to their homes;
- 165 clients or 92% are still homeless, currently living in temporary accommodation, expecting eviction and different legal-administrative problems.

Amount of torture they were exposed to:

- 125 clients or 74% were exposed to torture very often;
- 27 clients or 16% were sometimes exposed to torture;
- 6 clients or 3.6% were exposed to torture only occasionally.

Problems of negative effect of torture on health:

- For 119 clients or 70.4%, torture had a negative effect on their health;
- For 37 clients or 21.9%, torture had a significant negative effect on their health.

Loss of economic status:

- 120 or 71% of clients have experienced very substantial negative consequences caused by the loss of economic status;
- 36 or 21% of clients have experienced substantial negative consequences caused by the loss of economic status.

Diminished working capability:

- 109 clients or 64% now have a significantly diminished working capability.

Negative effect on family and marriage:

- 82 clients or 48.5% have family problems;
- 40 clients or 23.7% have significant problems related to family and marriage.

The unemployment rate of those who were exposed to torture rose from 7.1% before the war to 46.7% after the war

Clients' property status:

- 102 clients or 60.3% have very low economic status compared to 1.8% before the war;
- 54 clients or 31.9% have poor economic status.

These results show that 92% of clients do not have the means to survive independently, which means that they depend on humanitarian and material aid; that they are sick and are incapable of living and working independently.

Psychological analysis

Sample

The psychological consequences of torture on a sample of 51 torture victim clients were evaluated as follows.

Instruments

We used the SCL 90-R questionnaire (Derogatis, 1977). This questionnaire measures the level of the presence of psychopathological symptoms on nine sub-scales: obsessive-compulsive symptoms, anxiety, interpersonal sensitivity, depression, phobic anxiety, somatic problems, psychosis, hostility and paranoid ideas.

The questionnaire was administered twice, the first time before the client was involved in psychiatric treatment, and the second time 6 months after treatment.

Results

Raised levels of symptoms were determined on all nine sub-scales.

Psychopathological symptoms were present in following order:

- Depression
- Somatic problems
- Anxiety
- Obsessive compulsive symptoms
- Interpersonal sensitivity
- Psychosis
- Phobic anxiety

Sub-scales of hostility and paranoid ideas had the lowest levels of symptoms. After six months of treatment, the symptoms were reduced. This implies that long-term treatment is needed for these clients.

Discussion

These results suggest that torture has psychosocial consequences, but that treatment can assist clients with rehabilitation and with coping with traumatic experiences and present psychological and existential difficulties.

For this reason we will mention now some characteristics of the therapy used in CTV Sarajevo, and say a few words about things that made the rehabilitation process more difficult.

Therapy approach

- Multidisciplinary;
- Psychotherapeutic treatment;
- General medical treatment;

- Physiotherapeutic treatment;
- Overview and treatment from other specialties;
- Medication.

Psychotherapeutic treatment is based on encouraging the verbalisation of traumatic events in a supportive atmosphere and the use of positive counter-transfer within the psychotherapeutic relationship. The purpose is to re-establish chronological order in the verbalisation of events, traumatic experiences and torture, and to learn how to recognise the consequent emotions. The integration of the cognitive and the emotional helps people to elaborate trauma, and to put it in the past. In this way the psychological energy of the survivor is released, and the person can function better in everyday life.

Difficulties in the rehabilitation process

The poor socioeconomic situation of clients makes the rehabilitation process very difficult.

The status of this section of the population should be legally regulated, so that these people can receive moral support, medical-psychiatric rehabilitation, and financial compensation. This would give the survivor a sense of security and assist with the overall treatment process.

Re-traumatisation can be caused by eviction from houses and fear of return to pre-war homes, especially if housing and employment issues have not yet been resolved.

Clients who have survived torture, and who are also witnesses for the International Criminal Tribunal in The Hague, are exposed to re-traumatisation when they re-experience traumatic experiences and are not given protection and security.

Trans-generational trauma processes were noted in this population, one of the most vulnerable groups affected by the war.

A suitable posttraumatic environment and adequate support would decrease the consequences of these processes. This is something that this society should take care of.

Psychological aspects of amputation

Andreja Lipničević Radić

Vocational School, Zenica, Bosnia and Herzegovina

Introduction

If we want to understand the psychological aspects of amputation, we need to know more about the physical problems of amputees.

Treatment of all amputees starts with surgical intervention and postoperative care. The period of post-operative and protective care and recovery varies from person to person, but it usually lasts 2-3 months. On average, it takes 6 months from the moment the extremity is lost to reach the point where the person is ready to wear a prosthesis. By learning to wear his/hers *first* prosthesis (an arm or a leg) the patient has made the first step in treatment. But the primary chronic medical problem still remains – how to maintain a balanced personal physiological condition (body weight, strength and tone of muscles, skin condition, etc) with a prosthesis. To achieve this, prosthetics should be modified or changed from time to time.

The amount of energy used to perform typical actions and movements is much greater in amputees than in a *healthy* person. Continued use of energy, and fatigue, result in a decrease of individual motivation to undertake activities that are a part of the rehabilitation process. The amputee has to pay continued attention to the activation, control and use of the prosthesis. This increased attention makes a special psychological demand on patients.

Experience shows that the opinion of the amputee *before* he had to use the prosthesis directly influences the acceptance of the prosthesis, its use and efficiency. Patients must develop a positive attitude towards the prosthesis before they start to use it.

As for counselling, it is important to give encouragement, and to suggest solutions to real life problems that such individuals confront. Constructive work can be done if the counsellor knows the patient well and can adapt to the his-her psychological orientation.

Patient self-confidence includes self-acceptance, such as the ability to contemplate the amputation without self-pity, exaggeration, or denial, or without the use of less adaptive means of maintaining self-respect. This means staying in touch with reality and being able to see the situation as it is. Increased self-confidence can also lead to the desire for independence.

Lessons learned

Successful rehabilitation requires the patient to incorporate limitations in his/her life in such a way as to ensure that they do not interfere with activities that are important for life. How can this be done?

The patient needs to understand that with the prosthesis he/she can not walk as he/she used to be able to do, but that he/she can certainly walk more securely than with crutches; the prosthesis does not look like a natural extremity, but can satisfy minimum aesthetic standards.

As a part of the rehabilitation, we had to introduce new values and life goals, in place of those which existed before amputation (acceptance of substantive values or goals prevents the development of frustration or conflicts). Physical and mental discipline are important factors for rehabilitation. Continued care, attention, courage and respect are being used successfully to alleviate uncomfortable emotions experienced by the patient in accordance with his/her value system.

In our practice we also noticed some unusual processes which lead to either “abnormality” or ”normality” in behaviour or feelings.

On the one hand we have noted avoidance or fantasy, unsuccessful repression, with difficult consequences, self-delusion, dissociation, limited thinking about concrete adaptation and uncontrollable impulsiveness.

On the other hand we noted confrontation (checking reality), successful repression (full exclusion of unwanted thoughts and impulses), introspection, integration that presumes progressive organisation, as well as a tolerance of frustration and autonomy that goes with years and experience.

It is important to note that with amputees as a group there is no direct correlation between the level of physical loss and psychological difficulties. These difficulties depend on the personal attributes of individuals, and not on the type and level of amputation.

In this respect, we can categorize two types of behaviour of amputees.

Behavior associated with a positive self-image, which presumes:

- secure and self-confident behaviour
- stable motivation
- sociability
- lack of hostility
- positive acceptance of the prosthesis.

Behavior associated with negative self-images, which presumes:

- hostility
- dependence
- fear
- superficial self-confidence
- unstable motivation
- compulsiveness.

Work with patients aged 20-30 years have shown that the first psychological reactions in the case of disability and amputation are:

- suicidal thoughts
- shock
- apathy
- depression
- withdrawal
- anxiety
- avoidance of company
- increased hostility

These emotions dominate up to the moment when the patient gets his/her first prosthesis. Those first steps give them physical safety, a desire to socialize, and a certain amount of self-confidence. There is also a need for a new evaluation and for psychological reorganisation of one's situation.

A permanent prosthesis presumes a whole range of emotions, from indifference to huge optimism, depending on individual characteristics. The person is heading towards a new uncertainty, a new struggle, a struggle for a professional perspective.

The patient's age is a good example of a single factor which indicates the difference in amputees' psychological reactions.

Children up to fifteen years of age are often scared, they are not aware of what has happened to them, they are shy, they speak very little, feel helpless, are directed to parents and doctor from whom they expect assistance. At the same time, they do not have to worry about presenting a financial, physical or emotional burden to anybody. Their innocence and ignorance are at such levels that they often ask: "Mum, will a new leg grow?"

However, they will experience the first and most difficult shock during adolescence when they experience an identity crisis and all the problems that age entails. At that age, when, for the first time, they must face emotional problems and physiological needs, they require intense work with a psychologist, through group and individual therapy. At this point, many start to avoid their friends, isolate themselves, and lack self-confidence and motivation.

The following emotions have been noted in patients of 20-30 years of age:

- impulsiveness
- resignation
- depression
- apathy
- self-pity
- shame
- anger
- aggression
- bitterness

- fear of becoming a physical, financial or emotional burden on other people in the future
- uncertain professional perspective

Therapeutic effects on this population depend on several factors: the personal meaning of the loss of a certain body part, the patient's value system, the patient's emotional and intellectual capacity.

Patients that are 35 or older, as well as those who are wearing the prosthesis for a longer period of time, express very different reactions to members of previous groups. They manage to retain normal emotional and interpersonal reactions, they have stable motivation, secure and self-confident behaviour, they are motivated to socialize, and lack hostility. They are very good motivators in group work, serve as an example to others and offer inspiration.

Statistical data in our workshop gives the following overview of dominating emotions:

- anxiety
- impulsiveness
- depression
- hypochondria
- obsessive-compulsive neurotic tendencies
- hypersensitivity
- paranoid and phobic neurotic tendencies
- intense fear of death and pain (pain related to re-amputation and re-experiencing of trauma)
- avoidance of remembering

We noticed the following physical problems:

- phantom feeling and pain
- heavy sweating
- bad dreams, nightmares
- headaches, lost of consciousness and dizziness
- spine pain due to overburden of other, healthy leg or wrong prosthesis
- pain in other, healthy leg
- extremity numbness
- heart problems
- skin conditions
- psoriasis

We noticed the following cognitive problems:

- compelling thoughts and memories of trauma
- repression
- lack of concentration
- difficulties in logical comprehension

We noticed the following problems related to personal relations:

- withdrawal and isolation
- destructive behaviour
- disorganised behaviour
- disturbed relations with family members

In many cases, subjective perception has a greater influence on the rehabilitation process and its results than the physical level of disability.

Summary

The main goal of counselling and therapy is understanding, and a level of self-acceptance which enables the individual to take positive steps in the light of his or her new orientation.

Five years of village field work in Eastern Slavonia, Northern Bosnia and Vojvodina:

Lessons leading to the inter-disciplinary long-term model of complex rehabilitation: implications for the combination of work on psychotrauma, non-violent conflict resolution, and community development.

Charles Tauber

Coalition for Work with Psychotrauma and Peace, Croatia

Theoretical background

Such workers as Prof. Emeritus Adam Curle of the University of Bradford in the UK and Prof. Annemiek Richters, currently of the University of Leiden in The Netherlands, have written extensively about the relationship between psychotraumatisation, non-violent conflict resolution and the (re-) integration of communities affected by conflict. They maintain that trauma presents a barrier to social and economic development and to reconciliation and integration. Unfortunately, there is little data to back up this work.

The work discussed in this paper was started at the beginning of 1996 after an extensive assessment trip. At first, an attempt was made to carry out direct training with professionals and non-professionals, and to carry out treatment modalities based on standard methods. This experience quickly showed that major adaptations in methodology and content were required to conform to the needs of the situation in the areas in which we were working.

This has evolved into the Strategy of Complex Rehabilitation for Post-Conflict Communities. This model involves work at a variety of levels, including the individual, family, group, community, and the society. Further, it involves a long-term intensive interdisciplinary approach in a coordinated manner, working on issues of interpersonal and group communication, psychotrauma, non-violent conflict resolution, legal issues, community development, development of self-initiative, and development of independent thinking.

Hypothesis

In conformance with the work of Curle and Richters, the hypothesis of this work was that an approach to intra-conflict and post-conflict communities combining psychotrauma work with non-violent conflict resolution techniques would provide a substantially more effective result than either set of techniques alone.

Sample

Work was carried out directly with clients in some 30 villages in Eastern Slavonia and Baranja, Brcko, the remainder of Posavina, and Vojvodina. The groups and individuals dealt with were diverse. The sample included primarily adults of both

sexes, although several groups of youth were assisted. Refugees, displaced persons, and long-term residents were all represented, as were persons of all ethnic groups living in the region. Some 15 training groups were held for professionals and non-professionals. 20 individual clients, representing all of the groups noted above, were counselled.

Reports were made of all group activities by the group leaders.

Most work was carried out from January of 1996 onwards, though an assessment survey was made in 1995, i.e. under immediate post-war conditions.

Method

Villages were visited weekly for roughly 3 hours each. Group sessions were held in a variety of different settings including homes, municipal buildings, and even cafes. Training sessions consisted of three parts: inventarisation (in which participants discussed the problems of importance to them at the moment at which the session took place), standard training, and practice of skills. Other sessions included a wide variety of techniques, including discussion and standard group therapy. Individual sessions were adapted to the needs of the clients.

The subject matter of the sessions was extremely flexible. Although an agenda for the program as a whole was maintained, the order of the topics dealt with and details of the way that each topic was handled were dependent on the individual circumstances of the group at the moment that the session took place. This was highly variable because of changing political and physical conditions.

Results

It was found that many communities were simply not ready for training or work with psychotrauma techniques, and that other education had to be carried out first. Thus, work with communication, and attention to skills of democratisation (organisation, methods of contacting local and international officials), problems of return, human rights, and even economics, were important lead-ins to the actual work with psychotrauma. Nonetheless, the contribution of the work with psychotrauma to these other areas, and to work on reconciliation, was significant.

Furthermore, it was found that confidence-building and getting used to the concept of the groups and the type of work being done was an important part of the work. This was successful in almost every group. However, it is essential to note that, in a number of cases, this process took as much as a year.

Important issues dealt with included loss (one or another form of which was virtually universal), mistreatment (which was seen in about 10-15% of our population), denial (which was extremely common: "if only I had a job/had my house back everything would be fine"), blocked mourning, inability/ inexperience/ lack of permission to express feelings, residual effects of previous traumatisation (both direct and transgenerational), problems of identity (again, virtually universal among the people we worked with), coping mechanisms (we found many non-adaptive and/or ineffective coping mechanisms in both the intra-conflict and post-conflict periods), problems of

addiction (which were significant in a substantial number of males and females), family violence, suicide, problems of physical health (notably circulatory problems, endocrine problems, poor general health and even cancer), attitudes toward self-initiative and attitudes toward self-reliance (positive attitudes in this regard were lacking in a majority of the people we worked with) as well as a number of the non-psychological issues mentioned above.

Discussion / Conclusions

A more intensive approach is required to meet the vast and diverse needs of post-conflict communities. Work needs to be virtually full-time and multidisciplinary in any community undergoing the process.

Further, psychotrauma work, while highly significant in post-conflict societies and whose worth is, in general, under-recognised, needs to be combined with work in other areas, including communications, non-violent conflict resolution, skills of independent thinking, skills of self-initiative and self-reliance, organisational knowledge and skills, and even economic knowledge and skills and knowledge and skills of self-governance, in order to provide an integral approach to rehabilitation and reconciliation.

Work on reconciliation, rehabilitation and (re-) integration is a slow process. It should be carried out in each ethnic group separately at first, later combining groups at the moment at which they are ready for it themselves. It is a process that cannot be rushed. Both practitioners and donors must recognize this principle.

To be truly effective, this work needs to be interdisciplinary, and must be carried out in coalitions of organisations working in different fields and having particular knowledge and specialisation in issues of concern to post-conflict communities. This work thus must be highly coordinated.

The Strategy of Complex Rehabilitation, which is the result of this work, has important implications for successful sustainable return and reintegration, as well as for the overall democratisation of the beneficiary societies. Complex Rehabilitation is inclusive and flexible enough to be applied to a wide variety of situations.

It is our strong feeling that a great deal of further research needs to be done into the individual issues discussed above, as well as into integrated strategies such as Complex Rehabilitation. Further, it is critical that the donor and NGO communities be educated in the need for such work. Thus, while we see hope for the future coming out of this work, we recognize that rehabilitation, return and (re-) integration will only take place if momentum is maintained or increased.

Psychological care for caregivers

One model of intervention after bombing

Jelena Srna & Irena Radić

Department of Psychology, Faculty of Philosophy, University of Belgrade, Serbia and Montenegro

Introduction

The last decade of this century in Yugoslavia has been marked with intense social changes, social breakdown and numerous war conflicts which have resulted in terrible human tragedy, the consequences of which still can not be fully comprehended.

All these years, caregivers from different professions have taken care of hundreds of thousands refugees and other people that have suffered due to war. It is well known that caregivers, due to the nature of their job, are exposed to chronic stress, secondary traumatisation and burn-out syndrome (Danieli, 1996; Dyregrov,1996; Mitchel & Dyregrov, 1993; Petrović, 1997a, 1997b)

Carers even continued their humanitarian work during the two month long NATO bombardment of Yugoslavia. The danger of stress reaction has gone from the professional to the personal.

The research that will be presented is a part of a one-day intense preventive-intervention-educative program "*Care for Caregivers*", organised by the authors (Jelena Srna and Vesna Petrović) in 1999 in Serbia, during the six months after NATO bombing, with the support of the Red Cross Serbia and Yugoslavia and the International Federation of Red Cross and Red Crescent Societies (IFRC).

Program overview

Participants of this program were:

- 267 caregivers: (secretaries and assistants of municipal organisations of the Red Cross in Serbia); we worked with them on their experiences of bombing, ten years of living in a destroyed society, poverty, war in neighbouring countries, refuge (acute, chronic and cumulative stress), and tried to prevent primary and secondary war traumatisation and burn-out syndrome.
- 156 "non-caregivers" (100 psychology students at the Faculty of Philosophy, Belgrade University, and 56 teachers and students from elementary schools in Belgrade) with additional training in providing urgent psychological care in war circumstances (Srna, 1997).

The program consisted of:

- Three hours of *group work*, when (first individually and then in a group) we worked on and discussed material relating to stress.
- Half an hour *workshops* with: relaxation exercises, confidence-building, giving and receiving support.

- One hour *self-care training* (group discussion on models of prevention and intervention in case of burn-out syndrome).
- Half an hour of conclusion and program evaluation.

We worked on stress material first individually (prior to group exchange) with the help of a specially prepared questionnaire RM1 that was also used to collect data concerning the intensity and quality of stressors, psychological reactions to stress and coping mechanisms. The RM2 Questionnaire was used to evaluate the program '*Care for Caregivers* '.

Results from both questionnaires were used in quantitative and qualitative analysis. They have provided us with answers to following questions:

- What is the practical value of the '*Care for Caregivers'* program?
- Do caregivers have psychologically specific reactions to war stress (more specific than those of students and teachers)?

Program evaluation

- 90% of participants think that this program was moderately or very useful
- The usefulness of the program was higher than expected and in correlation with the expectations of the participants - r = 0,61 (p 0.01)
- Caregivers rated the program more highly than other participants
- Group work was considered the most useful element of the program
- Caregivers evaluated self-help to be more useful than workshops, while non-caregivers evaluated workshops as the more useful part of the program

For all participants, the program was short, but very intensive. They made the following recommendations: the program should last longer; it should be continued; it should include more participants (especially managers); there should be smaller groups but more moderators; it should be more interactive.

Research: Caregivers and war stress (Radić, 2000)

Research goals

To answer the following questions:

How did program participants experience the bombing? (stressors – reaction to stress – coping mechanisms)

Is there a difference between the experience of caregivers (secretaries and assistants of RC) and that of non-caregivers (students and teachers)?

Variables

Dependent: stressors, stress reactions (grouped in four categories: physical, emotional, cognitive, behavioural) and coping mechanisms (grouped in five categories: cognition-community-action-relaxation-flight).

Independent: profession, working experience, sex, age, date.

Sample

N = 423, EG = 267 (secretaries and assistants of the RC) + KG = 156 (fourth year psychology students and teachers of elementary school in Belgrade)

Selection of results

1. Stressors

Table 1. Ranking of stressors by caregivers and non-caregivers

	All	%	Caregivers	%	Non-caregivers	%
1	Death of people	37	Death of people	39	Death of people	34
2	Sound of shells	17	Care for others	16	Sound of shells	25
3	Lack of electric-ity/water	11	Sound of planes	15	Lack of electric-ity/water	17

- Death of people was evaluated as the most intense stressor in both subject groups
- Care for others is rated as a worse stressor by caregivers
- Sensory impressions are rated worse by non-caregivers

2. Reactions

The most frequent cognitive reactions are (in more than 50% of cases): lack of concentration; emotional reactions: rage, sadness, and fear; physical reactions: fatigue and sleeping problems; behavioural reactions: lack of ability to work (non-caregivers 52%), while caregivers are divided equally (26 % report a decrease, and 28 % an increase in working abilities).

Table 2: Differences between caregivers and non-caregivers in relation to stress reaction (significance of mean differences, t-test)

Changes	M caregivers	M non-caregivers	t	p
Cognitive	1.38	2.01	-6.27	0.00
Emotional	1.90	2.91	-9.02	0.00
Physical	1.89	1.85	-0.37	0.69
Behavioural	1.08	1.27	-2.14	0.03

- Caregivers are significantly less reactive (expressive or introspective) than non-caregivers in terms of cognitive, emotional and behavioural reactions. There are no differences in terms of physical reactions.
- Caregivers are a more homogenous group than non-caregivers (in both groups, *work experience* and *age* do not influence stress reactions). They call themselves 'Red Cross people '.
- Sex: Women globally are significantly more reactive than man, and women caregivers only in terms of physical and emotional reactions. (Biological reactions reveal their true feelings, while psychologically they seem to be adjusted to "male work".)
- Date: Caregivers tend to show significantly more feeling later, and non-caregivers significantly more physical reactions earlier. (Caregivers tend to control physical and postpone emotional reactions.)

3. Coping Mechanisms

Table 3. Difference between caregivers and non-caregivers in coping mechanisms

Coping mechanism	% all	% caregivers	% non-caregivers	p	
Cognition	55	45	71	0.00	**
Activity	57	73	29	0.00	**
Community	64	61	69	0.07	-
Relaxation	33	27	42	0.00	**
Flight/defence	12	13	12	0.71	-
Something else	2	1	5	0.01	*

- Emotional coping and defence mechanisms are universal tools against stress.
- Caregivers tend to cope with stress through action.
- Non-caregivers use cognitive mechanisms and relaxation.

Conclusions

The positive evaluation of the program *Care for Caregivers* exceeded all expectations of the authors.

This is clinical research, without any scientific pretensions. It was not planned in advance, but conducted in retrospect, and it may therefore have certain methodological weaknesses.

However, we believe that the positive aspects of this research are that:

- valid data was used (collected during clinical work),

- these results are very useful for clinical practice, because they show that caregivers are a specific and homogenous group that, unlike non-caregivers, is significantly more immune to stress and more inclined to use active coping mechanisms.

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Overview of results regarding children and young people

Dr. Maria Gavranidou

Introduction[4]

In the last decade of the last century, a war raged in South-East Europe which devastated the entire population, but in particular the weak: old people, women and children. Wars belong to the category of extraordinary life events. In contrast to the normative life crises (transitions from one phase of life into another, such as e.g. starting school, work, or retirement) critical life events happen with little or no warning: they hit us unprepared and disable our usual coping strategies and resources. For this reason they belong to the group of events whose effects are considered to be particularly damaging to the human organism.

Scientists from the widest range of disciplines have always been very interested in the effects of war on a population. Especially in the last century, they investigated war and its effects on the individual, both at the structural and the societal levels. The way in which scientists investigate the effects of war depends not only on their training and background, but also on trends and developments in their particular disciplines. For example, whereas developmental psychologists, psychoanalysts and psychiatrists asked whether, and if so, how much, war and associated violence experienced during the Second World War *brutalised* children, researchers and practitioners of these disciplines today are more interested in whether and to what extent children are *traumatized* by war and war events. One reason that the research focus has shifted is that the new category, 'posttraumatic stress disorder', entered the textbooks of psychological and psychiatric disorders about twenty years ago.

So research activities and the state of scientific knowledge after each war also mirror developments in and current foci of each particular scientific discipline. However, this, makes research findings especially important and valuable, for they not only contain indications of the long-term effects of war, but also illustrate approaches, constructions and interpretations influenced by the *zeitgeist*.

Compilations of research studies from a single war zone are especially useful in order to distinguish between the long and short-term effects of acts of war. Furthermore, such compilations provide an estimate of the current and future need for psychological support or treatment and in the end could be used as political arguments against war and aggressive acts. It was exactly these kinds of consideration which led to the production of this volume.

The first of the two sections in this volume dealing with children and adolescents attempts to document the effects of war, flight and expulsion on the psychological development and health of children and adolescents. The second section presents studies of interventions used during and after the end of the war in ex-Yugoslavia in

[4] Unfortunately, for technical reasons the contributions from Đapo, Galloway, Ceribašić-Ljubomirović, Kondić, Daneš, Kuterovac-Jagodić, Behrić, Imamović, Šestan, Zečić, Yule and Kutlača were not available to be considered for this overview. A longer version of this overview will appear as: Gavranidou, M. & Rosner, R. (in preparation). Psychologische Probleme und Auffälligkeiten von Kindern in Ex-Jugoslawien. In M. Zielke, R. Meermann (Eds.), Der ganz alltägliche Horror – Die Bedeutung der Posttraumatischen Belastungsstörung in verschiedenen Ereignisbereichen: Epidemiologie, Prävention, Behandlungskonzepte und klinische Erfahrungen. Pabst Science Publishers, Lengerich.

order to counter expected or already manifest effects of the war on children and adolescents. These studies show firstly the possibility of active intervention against, and the interception of, maladaptive developments even during the war, i.e. even under the very worst conditions. In addition, they prove in an impressive manner that in war situations therapeutic creativity and flexibility are necessary, and that ideology-free interventions appropriate to a particular situation can be developed and implemented. On the other hand, these studies mirror the growth of interest of the international scientific and psychotherapeutic community in intervening promptly even in the case of ”foreign“ wars, to support research and treatment involving individuals in the war area – contributing know-how, and help with evaluating therapeutic programs. On the other hand, there are indications that psychological disaster assistance is a not a key priority of psychological and psychotherapeutic activities, and that the time has come – since it is inconceivable that wars will no longer happen – for the international scientific community to think harder about how to facilitate psychosocial and psychotherapeutic interventions in wartime.

The studies presented in the second half of this volume are examples of research projects involving children and adolescents, performed during and after the wars in former Yugoslavia. On the one hand, they are studies which deal with etiological questions: which war experiences have which effects on which children and adolescents? And on the other hand, they describe intervention programs designed mostly for groups of children and adolescents living in war or post-war conditions. Some of these intervention studies were planned and realized using thorough methodology; others were born of practical necessity and have some scientific and methodological weaknesses. The latter type of study is presented here because it is informative and provides important indications of possible and practical interventions in war areas.

The research assignments presented here have much in common: all of them were presented at the ”Symposium”, and the target populations are children and adolescents from Bosnia, Croatia and Serbia. All these children and adolescents have undergone war experiences, expulsion and flight to a greater or lesser extent. Some of them were lucky enough to participate in psychoeducative and/or psychotherapeutic programs. Another thing these studies have in common concerns the instruments used: in most cases, lists of traumatic experiences, clinical instruments for behavioural assessment and posttraumatic stress disorder (questionnaires; assessments of self and others; clinical interviews and clinical ratings) were used. Mostly these were translations, already available or quickly assembled during the war, the majority based on Anglo-American instruments. A further similarity lies in the formation of the research teams: in many cases they are multinational research groups, in which local professionals worked with scientists from Germany, Great Britain, the Netherlands and the USA. As for the timing of the studies, two groups can be identified: studies that started during the war and those that were not begun until after the end of war. The psychological models on which these surveys are based originate in the area of general stress and trauma theories. The psychotherapeutic interventions, by contrast, seem at first glance to belong to certain therapeutic schools, but on closer examination, most of them turn out to be integrative approaches, eclectically

adapted to the particular requirements of their clientele and existing social conditions.

However, there are some differences between the studies. The first group of differences includes: age of the target population, regional and national origin of the children and adolescents, the societal meaning of experienced war encounters, closeness to and extent of these incidents. The second group of differences includes thoroughness, elaborateness and methodological standard. In the concluding summary and discussion, while paying attention to the similarities and differences, it is our goal to develop findings that can be generalized independent of time and location, but also to point out those which are related to the specific situation in Bosnia, Croatia, and Serbia.

Before taking a closer look at the studies, I would like to present a short overview of previous research literature on the psychosocial consequences of war for children and adolescents, summarising the available insights into interventions during and after war with children and adolescents.

Effects of war on the psychological development and health of children and adolescents

The research literature in this area deals with the question of whether posttraumatic stress disorder occurs after war experiences, and if so, to what extent. What happens frequently is that on the one hand war is used quite indiscriminately as an umbrella term for accumulated stress, and that on the other hand, reactions to stressful experiences are reduced to only one disorder (PTSD). This means, even with more complicated and methodologically "refined" study designs, the resulting increase of knowledge is disappointingly small because of the lack of a more comprehensive theoretical basis.

Nevertheless, sufficient research findings exist in this area to allow useful insights into effects of war stressors on child development. The main conclusions of the research activities of British psychologists and psychoanalysts during and after World War II, as well as of studies that took place in Israel, Palestine, Northern Ireland, Mozambique and other wars zones of the last century, are as follows.

Children and adolescents react quite differently to war events; their reactions depend on age, and therefore also on their developmental phase and their emotional and cognitive abilities; on gender; on intactness of family or attachment figure; on whether the child has suffered severe physical injuries; on the proximity to war events and on the type of war experience; and on possibilities for recovery after the event. Moreover, it is known that children and adolescents react to war stressors with all kinds of behavioural idiosyncrasies, disorders and psychological problems and do not respond to war trauma only with symptoms of posttraumatic stress disorder (viz. Jensen & Shaw, 1993; Boardman, 1994; Milgram, 1982).

Studies conducted during and right after the wars in Croatia and Bosnia and with Croatian and Bosnian refugees in Western Europe and the USA support these findings (Ajduković & Ajduković, 1998).

Psychosocial interventions with children and adolescents during and after war

With regard to the diverse intervention programs for and with children and adolescents which are employed during and after wars, two approaches can be identified: *firstly, non-specific supportive group programs* with the general aim of stabilization and restoration of mental health, and moreover the support of developmental processes which were interrupted by war traumata. The other therapeutic approach concerns *specific interventions* targeting war-related psychopathological disorders, especially posttraumatic stress disorder. Both approaches and procedures have proved to be appropriate and urgently necessary (Taylor, 1998). Therapeutic support as soon as possible and in whatever form with children and adolescents who have experienced war can not only lead to healing and positive development of children and adolescents, according to Taylor, but can also be conducive to peace: "With screening and balanced curative and preventive interventions all the children can be cared for in a more positive way, so that they grow up with less hatred. Children and their mothers who learn how to handle psychological trauma and PTSD and can become effective peace builders working directly in their communities. More important is that they teach alternative coping mechanisms to the men who otherwise tend actively to nurture generational hatred and to demand revenge." (Taylor, 1998, p. 175).

Overview of the studies

The participants of the Symposium and authors of this volume have implemented programs in concordance with Taylor's recommendations: screening of children and adolescents to assess their psychological problems and needs, immediately followed by preventive and therapeutic interventions.

Studies on epidemiology, models, and risk and protective factors

The studies presented in the following paragraphs consistently demonstrate the need for psychosocial interventions, and in addition show which factors increase the risk of a psychological disorder after exposure to war events, and which protective factors work against pathogenic development.

The studies are presented below under a number of different headings: what kind of traumatic war events were the children in Bosnia, Croatia and Yugoslavia exposed to; how did they experience the stressful events; what is the prevalence of symptoms of posttraumatic stress disorder (PTSD) and other psychological disorders; what role do age, sex, parental reactions and extent of exposure to war events play in the development of PTSD symptoms and other psychological diseases; and finally, which coping mechanisms are activated and utilized to deal with traumatic war events.

What kind of traumatic events were the children exposed to?

The wars in Bosnia and Croatia exposed the children of the region to a large number of potentially traumatic events. Most of the children and adolescents in the studies

presented were confronted with bombings and shootings, experiences of violence and loss, physical injury and wounding, separation from family members, witnessing of cruelties to other people, expulsion and flight. In the long-term projects reported by Đapić & Stuvland, 78% of the Bosnian children stated that they underwent at least six traumatic experiences during the war. Children who fled from Sarajevo seem to have had fewer traumatic experiences than those who had to stay (Karačić & Zvizdić; Osmanović & Zvizdić). The refugee children in the study by Janković had experienced more traumatic experiences than the local children in Croatia. In Savić's survey from the Republika Srpska all adolescents had experienced war traumata, but the adolescents in the collective centres reported the most and the worst traumata. Milosavljević and Turjačanin support these results; in their study of adolescents in the Republika Srpska, two-thirds of the sample reported seven or more war events. In these last two studies, refugee children are the group with the highest number of traumatic war events.

How did they experience the stressful events?

In their surveys, Duraković-Belko, Tišinović and Trebješanin describe the subjective inner psychological forms of experience of these traumatic events. A lack of control over events and powerlessness seem to be the central forms of experience. But also fear, desperation, and likewise the desire to be able to do something, as well as the relativisation of earlier moral concepts, a more positive attitude towards family and friends and a more rapid process of maturation, are named as coping modes.

What is the prevalence of symptoms of posttraumatic stress disorder (PTSD)?

Independent of region, but dependent on the extent and form of exposure to traumatic events, children and adolescents develop symptoms of posttraumatic stress disorder (PTSD). While the studies from Yugoslavia provide information about the outbreak of PTSD symptoms immediately after short-term acts of war, the majority of the studies from Bosnia and Croatia report on the prevalence of PTSD symptoms a few years after a full-scale war that lasted several years.

In the study by Đapić and Stuvland, 48% of the children show a medium level of PTSD symptoms, and 43% show severe PTSD pathology during the war in Bosnia. Four years later, intrusions and avoidance behaviour were assessed, with 44% of the children with a medium level of symptoms, and 32% of the children with a severe level. More than one half of the sample of Bosnian children described in the study by Zotović & Stanulović show clinically relevant PTSD symptoms five years after the end of the war. Radić surveyed children who had experienced the massacre in Tuzla, identifying medium and high PTSD symptom scores amongst two thirds of them two years later.

Two studies look not at the effects of the war in Bosnia-Herzegovina and Croatia, but at the effects of the NATO bombing in Serbia in 1999.

In the contribution by Nikić-Matović, PTSD symptoms were identified after the NATO bombing in 10% of the girls and 7% of the boys from a sample of older adolescents after the NATO bombing. Marinkovic and colleagues in the Vojvodina also researched the prevalence of PTSD symptoms among children and adolescents after

the NATO bombing. Concentration problems and avoidance belonged to the symptoms most often named in the group. Altogether, 27% of the children and adolescents in this study showed moderate PTSD reactions.

The findings of the previously cited studies contrast with the results of Slodonjak, who compared refugee children from Bosnia who had experienced war traumatic events to Slovenian children, including one sample who had experienced a school bus accident. The refugee children did exhibit PTSD symptoms, but no more severe than those experienced by the children involved in the bus accident, and they did not perform worse in school than the Slovenian controls.

What is the prevalence of symptoms of other psychological disorders?

Besides PTSD, other psychological disorders and difficulties can be identified in children and adolescents. Affective disorders and psychosomatic reactions are most often reported. Over 18% of the Bosnian girls in Apia & Sunland's contribution showed depressive reactions several years after the end of war; this was not the case among boys of the same age. Around 20% of the school children in the sample reported by Zotovic and Stanulovic showed clinically relevant affective symptoms. A number of other reactions are reported: psychosomatic reactions (Osmanovic & Zvizdić), adjustment reactions (Bursać, Matović), and psychosocial problems (Janković). Marinković and colleagues report a sex-independent increase of psychosomatic symptoms among children and adolescents after the NATO bombing in Yugoslavia. Zvizdic & Butollo researched the reactions of children with a missing father. These showed more depressive and psychosomatic symptoms compared to other children, particularly among the girls, and more behaviour problems and bad school performance, particularly among the boys.

In Smith's study of school children from Mostar and their mothers, higher levels of PTSD but not of depressiveness and anxiety were found. This is interpreted as being due to the social support functions of the children's surroundings remaining effective, therefore promoting their general resilience. This general social support would prevent an increase of affective and anxiety problems, but not of PTSD pathology.

What role do the age and sex of the children, parental reactions and extent of exposure to traumatic events play in the development of PTSD symptoms and other psychological diseases?

The age and sex of children and adolescents seem to have a moderating effect on PTSD and other psychological diseases. Age seems to influence the type of symptoms, as reported in e.g. the study of Šehović (intervention part). In that study, it seemed that younger children reacted less with aggressiveness and problems of social behaviour. Marinković and colleagues report that older adolescents (over 15 years) showed more medium and severe PTSD symptoms.

The female sex appears in these studies as an additional risk factor: girls are more often affected by PTSD than boys (Išpanovic et al. in the treatment section, Đapić & Stuvland, Matović, Marinković and colleagues, Milosavljević & Turjačanin, Osmanović & Zvizdić).

The extent of exposure to traumatic events as well as the reactions of parents are additional factors that can influence PTSD and other psychological disorders (Smith, Osmanović & Zvizdić, Bursać, Petrović). Moreover, the subjective meaning of the event seems to co-determine the extent of exposure to traumatic events, and consequently the psychological impairment, particularly for adolescents (Duraković-Belko). Furthermore, personality traits such as neuroticism and belief in control are named as intermediary factors in the development of psychopathologic reactions (Zotović & Stanulović). Petrović stresses in her work the significance of the *type* of exposure to traumatic events for posttraumatic mental processing and the subsequent development of psychopathology. She shows that loss of loved ones is more likely lead to affective disorders, whereas "war acts" such as bombings are more likely to lead to disorders in cognition and character.

Which coping mechanisms are activated and utilized to deal with exposure to traumatic war events?

Considering the experiences with which the children and adolescents in the region were confronted, it is astounding that they managed to find any way at all of coping with them. In fact it appears that the forms of coping they employed to deal with the threats facing them belong to the passive, emotional and inadequate or noxious types of coping. Less frequently, active, problem-related coping is utilized (Duraković-Belko, Trebješanin).

Studies on treatment, evaluation, and implementation

In the study by Kapor-Stanulović & Zotović, a very intense therapeutic program with art therapeutic, projective and literary modules and debriefing, is presented. The program was employed with particularly traumatised Bosnian children aged 10-16 years old. The intervention aimed primarily at the integration of negative experiences and feelings, as well as at the strengthening of the children's resources and coping possibilities. The disorder-specific therapeutic program led to reduction of PTSD symptoms, but not to improvement in other problem fields, such as aggressiveness and emotional inhibition.

Topalović and Vlajić present psychological workshops as a way of quickly providing help for children in extreme situations. In this case, the target group is children in Yugoslavia during the NATO bombing. The aim of the workshop was to offer the children an appropriate reference system (adult models who were not just overwhelmed and traumatised) for handling their experiences, extending their knowledge and integrating their feelings. Observation of the children's behaviour indicates that the procedure was effective, leading to a reduction of fear, negative feelings and strain, and preventing the development of further symptoms.

Children and adolescents with special needs are often forgotten in times of highest crisis and excessive demand. In his qualitative analysis of a combined parent-child program for this target group, Hrnjica shows that especially here, interventions are essential. The parent training appears to have been particularly effective, supporting and providing some relief to the parents at the same time as benefiting the children and adolescents.

In the evaluation study by Gavranidou, Čehić, Powell & Pašić, the differential effects of a reintegration program for returnee children are investigated. These children have experienced flight, expulsion, migration and repatriation, all of which made great demands of different kinds on the children. A reintegration program was designed to counteract some of the possible negative effects of their multiple experiences. It was shown that it was above all the younger children that profited from the program, in particular if they participated in the program continuously.

Šestan presents a therapeutic approach for traumatised pre-schoolers and their mothers. A control group design was employed, which is scientifically appropriate. The program, mainly consisting of psychosocial counselling and social support of children and mothers, appeared to be very effective for children and their mothers. There were also indications that pre-schoolers who neither received therapy nor visited a kindergarten were worst affected.

Given the fact that most studies have methodological flaws, legitimate doubts as to the genuine effectiveness of such intervention programs during and after the war arise. Đapić's and Stuvland's findings do much to alleviate these doubts, clearly showing the usefulness and effectiveness of such intervention approaches. It seems that psychosocial programs are effective in supporting children, who are themselves very inventive and capable of using and employing coping mechanisms in many different ways.

In Šehović's study a cognitive-behavioural model for displaced and refugee children is presented and evaluated. Šehović shows that in general this kind of treatment is effective in reducing PTSD symptoms. Admittedly, this was less the case with younger children, for of the children who participated in this therapy, the adolescents showed the highest therapeutic gain, which indicates the importance of cognitive development in this therapeutic method.

Išpanović-Radojković, Petrović, Davis, Tenjović & Mincić explore the effects of participation in a broad psychosocial program with older refugee children. Here it appeared that adolescents showed improvements in their psychosocial and general situation, but trauma symptoms increased. This could indicate that severely traumatised children and adolescents tolerate confrontation with the traumatic experiences only after general psychological stabilisation.

In their study, which uses appropriate methodology, Petrović and Išpanović show that therapeutic treatment for children who had experienced traumatic events led to a decrease in PTSD symptoms, but did not lead to any improvement in other behaviour problems, such as aggressiveness and depression. On the other hand, the untreated control group showed an increase of psychoticism. This indicates that untreated children who had experienced trauma may be in danger of developing severe psychopathological disorders such as dissociation subsequently.

Stuvland and Duraković present the results of their work with a group of persons who work every day with children who had experienced traumatic events and who have the task of supporting and encouraging them: teachers. Teachers who had participated in psychosocial programs were invited to report their experiences. The teachers were satisfied with the training programs, which they rated as helpful for

their work with their children. The teachers' wishes for the future primarily concerned supervision and support with pedagogic materials.

In summary, the different specific and unspecific psychosocial and therapeutic programs presented in the second section had positive effects on the children and adolescents. Most of the studies contain methodological research flaws, such as lack of randomisation and control group, and inadequate measurement of the criteria. Yet these studies arrive at more or less the same conclusions as those that come closer to meeting the strict requirements of psychotherapy research, that is: psychosocial programs with children and adolescents during and after the wars in Bosnia and Yugoslavia can intercept and partly even eliminate the many negative effects of war and its consequences. Specific PTSD programs lead to improvement within the PTSD pathology, but are rather ineffective in other problem areas. Posttraumatic stress reactions can and should be treated. However, intervention aimed at stabilising the children's circumstances and psychological coping resources should be interposed prior to effective PTSD-specific treatment.

Summary

The studies summarised here largely confirm the findings of earlier research. They show on the one hand that war has devastating effects on children and adolescents, with PTSD and depression as the most prevalent consequences. In contrast to earlier studies, the present studies deal in particular with PTSD and its aetiology and course during and after the war. This means that PTSD symptoms have been adequately recorded on the whole, whereas other disorder patterns, with the exception of depression, have not been adequately covered. On the other hand, the studies demonstrate the necessity of intervention. Both specific interventions e.g. for the treatment of PTSD, together with unspecific programs for the general stabilisation of children and support of their development, must take place. A third group of interventions which have proven just as effective as traditional interventions are those that involve the children's immediate and wider surroundings, such as parent training, therapeutic programs, teacher training and supervision.

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Papers on children and adolescents: epidemiology and risk and protective factors

Posttraumatic stress reactions in the children and adolescents of Sarajevo during the war

Syed Arshad Husain

University Missouri, Columbia, USA

Introduction

Most of the PTSD research in children involves victims of natural disasters, major accidents, hostage situations, kidnappings, and random shootings in schools. In these situations, the samples have been comparatively small. Other studies are done on children who have lived in armed conflicts. However, the effect of long-standing siege conditions on children has not been studied in detail before, due to the rarity of siege conditions in this day and age.

Weine et al. (1995) reported on 12 Bosnian adolescents who had resettled in the United States and were survivors of "ethnic cleansing" in Bosnia and Herzegovina. Twenty-five percent of the subjects were diagnosed with PTSD, and 17% were depressed. A re-experiencing cluster was seen in 50% and avoidance was noted in 31%.

In disaster conditions younger children are reported to have more symptoms of post-traumatic stress disorder than adolescents (Shannon, Lonigan, Finch & Taylor, 1994)

The co-occurrence of PTSD and depression has also been reported by several investigators (Kovacs, 1982; Kroll et al., 1989; Živčić, 1993).

Our study is unique in that the children studied lived under siege conditions for over four years and were exposed to daily mortar attacks and sniper shooting, and faced deprivation of food, water, clothes, and shelter. They were forced to live on the bare minimum in the harsh conditions of several winters.

Method

Sample

During the war in Bosnia and Herzegovina in February 1994, when the city of Sarajevo was under siege, we collected data on children from 10 schools within one school district. Elementary schools in Sarajevo go up to grade 8 and have students from the ages of 6 to 16. We had more younger children in our sample than older children, reflecting the age distribution of the elementary school population.

Given the state of siege in Sarajevo at the time of the study, we were unable to determine how the sample of surviving children differed from the original population. Moreover, whatever their socioeconomic status (SES) before the war, at the time of this study, Sarajevans lived in deprived conditions and SES data is therefore not included.

Instruments

All the instruments used in this study were translated into the Bosnian language. The translated versions were retranslated into English by an independent translator in order to check accuracy. Children and adolescents were administered the following scales in one session by the teachers: (a) the Children's Post-Traumatic Stress Reaction Index, (b) the Impact of Event Scale, (c) the Children's Depression Inventory, and the (d) General Information Questionnaire. The Children's Post-Traumatic Stress Reaction Index and the Impact of Event Scale have been used in research in PTSD in children.

Students were assessed for the presence of posttraumatic stress disorder symptoms, avoidance behaviour, and re-experiencing of trauma, along with depressive symptomatology. General information such as age and gender was also obtained.

Children's Post-Traumatic Stress Reaction Index:

This instrument measures PTSD symptoms. It has 16 yes/no items. The number of responses in the affirmative determines the extent of the PTSD. The scale includes items such as intrusive imagery, poor concentration, fear of recurrence, and bad dreams. A score of 7-9 indicates mild, 10-12 indicates moderate, and 13 or more indicates severe posttraumatic stress disorder.

Impact of Event Scale

This instrument measures the subjective emotional responses of (a) intrusive thoughts and (b) avoidance behaviours, after stressful life events. It is a 15-item scale developed by Horowitz et al. (1979). It was developed prior to the publication of DSM-III and, as a result, does not formally assess all DSM criteria for PTSD.

The symptom intensity/duration is measured on a four-point scale with an increasing order in the intensity of the impact being indicated by the increase in the score. Item scores are combined to determine the intrusion and avoidance subscore of each individual.

Children's Depression Inventory (CDI)

This is a 27-item scale with three options available in each item. The CDI measures current level of depression and has been used with adolescents. It includes questions pertaining to feelings of sadness, self-esteem, loneliness, and vegetative symptoms of depression. The extent of depressive symptoms present is assessed by determining the symptoms rated by the individual. A score less than 20 implies lack of depressive symptoms. The CDI has a one-week test-retest r = 0.87 on referred and 0.38 on nonreferred groups. A review of studies of the validity of the CDI is given by Costello et al. (1988).

General Information Questionnaire

This questionnaire includes demographic information, questions pertaining to loss of family members, displacement, abuse of family members, and perceived needs.

We divided the sample into two age groups, taking the cut-off age as under 13 to determine if adolescents as a group respond differently to the events around them by their being in a different stage developmentally and cognitively.

We combined scores from the PTSD Reaction Index and the Impact of Event Scale to derive a composite symptom complex that would have all the criteria required to make the diagnosis of PTSD in DSM-IV except the duration of one month and the impairment of functioning. The last two items did not occur as specific queries in our study.

Results

The ages of children studied ranged from 7 to 15 years. The mean age of the sample was 11.0 (s.d. 2.3). The age distribution of the group was 489 (68%) under the age of 13 and 232 over the age of 13 (32%). 49% were males and 51% females. In the under the age of 13 group, the ratio was 53% females to 47% males and for adolescents over the age of 13, it was 50% of each (Table 1).

Table 1. Demographic Information

Number of participants	Male	Female
Age less than 13 years	31.9%	35.6%
Age more than 13 years	16.3%	16.2%
Total	48.2%	51.8%

Analysis of the Impact of Event Scale by gender is presented in table 2. These differences were statistically significant (Table 2). The relationship of these scores to age was not significant (Table 3).

*Table 2. Male and Female Responses to the Impact of Event Scale**

Impact of Event Scale	Male	Female	Sig. p =
Avoidance	21.6 (6.8)	23.6 (6.9)	.0001
Re-experiencing	13.8 (5.0)	15.1 (5.2)	.0004
Total	35.3 (10.8)	38.6 (11.1)	.0001

*s.d. in parentheses

In our sample, 613 of the 791 subjects had experienced sniper attacks (85%). The number of males and females who had experienced sniper shooting was about equal, 51% male and 49% female (x^2 = 0.0, p=.97). This result is in contrast to the general expectation that more males will be exposed to shooting than females, and

*Table 3. Impact of Event Scale and Age**

Impact of Event Scale	Age < 13	Age > 13	Sig. P=
Avoidance	22.7 (6.7)	22.4 (7.5)	.77
Re-experiencing	14.4 (5.0)	14.5 (5.4)	.83
Total	37.0 (10.7)	36.8 (11.9)	.99

*s.d. in parentheses

implies the ubiquitous nature of the incidents, and that they were part of a person's daily routine. No significant differences were seen in the scores of the various scales in the sample exposed to shooting and the one that was not. This evenness persisted when males and females were analyzed separately (Table 4).

Table 4. Sniper Shooting and Response to Impact of Event Scale, PTSD Reaction Index, Composite DSM IV PTSD Diagnosis and Depression Means and (s.d.) or percents

	Sniper or shooting	No sniper/shooting	Sig. p =
Impact of Event Scale	36.8 (11.1)	38.0 (10.8)	.16
PTSD diagnosis (Reaction Index)	210 39.0%	66 43.1%	.35
Composite DSM IV PTSD diagnosis	96 17.1%	28 17.8%	.82
Depression	36.1 (7.2)	36.6 (7.6)	.25

Impact of Event and Depression Sales: p value from Wilcox test.

PTSD Reaction Index and Composite DSMIV PTSD; p value from chi square test.

We compared the responses of children and adolescents in the groups that had been exposed to sniper shooting and found no significant differences between the two age groups ($x^2 = 2.31$, p=.13) (Table 5).

521 (66%) children had lost an immediate member of their family during the siege. We compared their responses concerning the psychological impact as a subgroup with the non-affected group. Children who had lost a family member showed more avoidance and re-experiencing symptoms than the group that did not (Table 6). This group was also more depressed.

Table 5. Sniper Shooting in Relation to Age, Impact of Event, PTSD Reaction Index, Composite DSM IV PTSD Diagnosis and Depression. Means (s.d.) or Percents.

	Sniper/ shooting age <13	No sniper/ shooting age <13	Sig. p=	Sniper/ shooting age>13	No sniper/ shooting age>13	Sig. p =
Impact of Event Scale	37.0 (10.9)	37.3 (9.9)	.86	36.1 (11.6)	38.9 (12.7)	.05
PTSD diagnosis (Re-action Index)	31.2%	33.3%	.68	38.2%	41.9%	.61
Composite DSM IV PTSD diagnosis	17.1%	20%	.53	15.5%	13.6%	.72
Depression	35.7 (7.7)	36.1 (7.5)	.59	36.0 (6.0)	37.8 (7.8)	.06

Impact of Event and Depression Scales; p value from Wilcox test.

PTSD Reaction Index and Composite DSMIV PTSD; p value from chi square test.

Table 6. Loss of Family Member and Response to Impact of Event Scale, PTSD Reaction Index, Composite DSM IV PTSD Diagnosis and Depression. Means and (s.d.) or percents

Impact of Event Scale	Family mem-ber lost to war	Did not lose family in the war	Sig.
Avoidance	23.1 (6.8)	21.7 (6.9)	P < .01
Re-experiencing	14.8 (5.2)	13.6 (4.9)	P < .002
Total	37.9 (10.9)	35.3 (11.1)	P < .002
PTSD diagnosis (Reaction Index)	36.1%	32.8%	P = .37
Composite DSM IV PTSD diagnosis	18.8%	14.1%	P = .11
Depression	36.6 (7.4)	35.3 (7.0)	P < .02

Impact of Event and Depression scales: p value from Wilcox test.

PTSD Reaction Index and Composite DSM IV PTSD: p value from chi square test.

76 percent of subjects felt deprived of food and 48% felt deprived of clothes, followed by 29% deprived of water and 10% of shelter. The rate of PTSD as a whole was higher when compared with the not deprived group. The deprived group also reported more avoidance and re-experiencing clusters of symptoms (Table 7).

Table 7. Experience of Deprivation of Food, Water and Shelter and Impact of Event Sale, PTSD Reaction Index. Composite DSM IV PTSD Diagnosis and Depression. Means and (s.d.) or percents

Impact of Event Scale	Need water	Do not need water	Sig.	Need shelter	Do not need shelter	Sig.	Need clothes	Do not need clothes	Sig.
Avoidance	24.2 (6.1)	22.0 (7.1)	.0005	25.5 5.8	22.3 6.9	.0002	23.1 7.0	22.2 6.7	.04
Re-experiencing	16.1 (4.4)	13.7 (5.2)	.0001	17.6 4.3	14.1 5.1	.0001	15.1 5.2	13.8 4.9	.0001
Total	40.3 (9.6)	35.7 (11.3)	.0001	43.1 (9.2)	36.4 (11.1)	.0001	38.2 (11.4)	35.9 (11.4)	.002
PTSD diagnosis (Reaction Index)	89 44.3%	186 38.0%	.12	24 38.7%	252 40.0%	.84	158 48.0%	118 32.5%	.0001
Composite DSM IV PTSD diagnosis	43 20.6%	81 15.9%	.13	111 6.9%	113 17.3%	.94	70 20.3%	54 14.4%	.04
Depression	37.4 (7.0)	35.7 (7.4)	.002	38.4 (7.6)	36.0 (7.3)	.004	36.6 (7.4)	35.9 (7.3)	.07

Impact of Event and Depression Scales: p value from Wilcox test. PTSD Reaction Index and Composite DSM IV PTSD: p value from chi square test.

We assessed the presence of PTSD in two ways: by using the PTSD Reaction Index only, and by combing PTSD Reaction Index items and Impact of Event Scale items to produce a composite score which was consistent with DSM-IV PTSD criteria (Table 8). On PTSD Reaction Index Scale, 40% of the sample showed PTSD while on Composite Scale, only 18% fulfilled the criteria for PTSD, indicating that DSM-IV PTSD criteria are more stringent.

Table 8. PTSD Reaction Index and DSM-IV Composite diagnoses in the different groups. Means and (s.d.) or percents.

				Males			Females		
	All n=791	Males	Females	Mean	Age <13	Age >13	Mean	Age <13	Age >13
PTSD Reaction Index	40%	38.1%	41.3%	35.2%	34.0%	38.1%	41.4%	37.6%	48.1%
DSM IV Composite	17.5%	16.7%	18.7%	18.1%	17.7%	18.9%	15%	10.8%	19.3%

Our study also showed that a higher percentage of the older age group had symptoms of PTSD as compared to the younger age group, and females had more PTSD symptoms than males in both groups. On the PTSD Reaction Index in the older than 13 age group, 48% of females had PTSD, as compared to 38% of males. In the younger age group, 38% of females were symptomatic as compared to 34% of males.

Discussion

Our sample contained more children under the age of 13 than over the age of 13 with a ratio of 2:1 for the reasons explained earlier. The number of girls and boys in the sample was equal (Table 1).

We realized that 13 years of age as a cut off point between younger and older group is arbitrary, since the physiological and psychological transition from preadolescence to adolescence is not clearly age dependent and may vary from individual to individual.

In our sample, females reported greater distress and scored higher than males in the areas of avoidance, re-experiencing, and the total scores on Impact of Event Scale (Table 2). These results are consistent with the earlier studies (Helzer, Robins & McEvoy, 1987; Shore, Tatum & Vollner, 1986). However age-related differences in the rate of PTSD did not compare well with an earlier study (Shannon, Lonigan, Finch & Taylor, 1994) where younger children had more symptoms than the adolescents[2] (Table 3). In our study the younger children did not show as many symptoms as the older group.

We hypothesized that (a) the younger children in the sample were more shielded by adults and thus were less exposed to traumatic event than the older group and (b) the younger children might show fewer symptoms than the older children due to their cognitive immaturity, limited understanding of irreversibility of death, and ready acceptance of war conditions as part of life. The older ones, on the other hand, had more exposure to life-threatening situations by simply being out more. They also had more memories of what life used to be like before the war and the siege. They also had a greater sense of loss, and consequently scored higher on the depression scale than the younger group.

Our results show that there was no significant relationship between exposure to sniper shooting and PTSD symptoms, irrespective of age and sex (Table 5). One may hypothesize that after years of exposure to sniper fire, the children developed an effective adaptive mechanism to cope with sniper shooting and did not show psychological stress as long as they were not directly hit by the bullets or shrapnel.

The loss of a family member, however, had a significant adverse psychological impact on the children. Such loss threatened their safety, security and survival, invoking a deeper sense of vulnerability.

The children in our sample identified food and clothing as important needs more often than water and shelter. Deprivation of food and clothing were associated with more symptoms of avoidance and re-experiencing. This is understandable as food is

necessary for existence and so is shelter, particularly in winter. Besides the search for food would give greater exposure to life-threatening events. In general, deprivation of food was associated with significantly increased symptoms of PTSD, avoidance, and hypervigilance.

Our study also shows that the DSM-IV criteria are much more stringent than those utilised in the Impact of event Scale or PTSD Reaction Index. Roughly only half of the children and adolescents identified as displaying significant symptoms of PTSD using the PTSD scale or Impact of Event Scale would meet DSM-IV criteria for PTSD.

Conclusions

This study carried out on children and adolescents in the besieged city of Sarajevo sheds new light on the effect of war trauma on children. Females had more symptoms than males, and losing an immediate family member to war was related to more symptoms of PTSD, while exposure to shooting by snipers was not. Deprivation of food, water, shelter and clothing due to war was also associated with more symptoms.

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Children and adolescents' psychosocial disorders in Sarajevo during the war and the post-war period

Vera Daneš

Psychiatric Clinic, University Clinical Centre of Sarajevo, Bosnia and Herzegovina

Introduction

Starting with the premise that children in Sarajevo were exposed to a high level of traumatic events, we can make an assumption about possible underlying negative consequences for the mental health of children and adolescents (who are in any case going through vulnerable phases of their development) in Sarajevo during the war.

In this context, it seemed interesting to conduct research into trends of psychiatric morbidity in the population from the area that experienced war. Based on this, concrete objectives and research problems were drawn up.

Research objectives and problems

1. to determine the trend of psychiatric morbidity in this age group during the war and during the post-war period;
2. to determine whether during that period of time any new clinical syndrome has occurred as a consequence of changed life circumstances;
3. to determine if and how restrictions on school education during the war were later reflected in school children's inability to fulfil their educational potential.

Sample

The subjects of research were children and adolescents registered as patients in Sarajevo, with written records of psychological disorders. The sample consisted of 300-400 patients per year, from 1992 to 1999. Both male and female patients were included, aged 5 to 18. The sample consists solely of subjects from the non-displaced population.

Procedure

There was no direct research or observation on children done for the purposes of this research. The main criteria for sample selection were the disorder histories and medical files of children and adolescents who had psychiatric diagnoses. They were all treated at the Department for Child Psychiatry in the Psychiatric Clinic of the Clinical University Centre in Sarajevo and at the Psychological Counselling Centre "Duga" in Sarajevo. The research is epidemiological and clinical, retrospective and prospective. International Classification of Disorders (ICD-10) was used for defining psychological disorders as clinical entities.

Results and discussion

Developments during the war

The results show that during the war the highest increase was recorded in the group of neurotic disorders, with a significant drop in psychotic disorders. Another interesting result is that at the beginning of the war, a sudden drop in development disorders (ICD category F 80) was recorded. As the war went on, the picture changed significantly, with the percentage of these disorders falling further. Possibly, this can be explained as part of the population's adapting to conditions of war. In 1994 a new diagnostic entity, PTSD (F 43.1.), was introduced to the statistics. It can be said that Posttraumatic Stress Disorder is evident as a consequence of war, but not to the extent that might have been expected considering the severity of the war and the way of people were forced to live in the city.

The results clearly show that compared to the pre-war period, a general increase in psychological disorders occurred in the selected population, and that, as the war came to an end, those percentages again became similar to the percentages from the pre-war period. These results are in accordance with generally accepted data in literature that demonstrates that, basically, wars bring a higher rate of psychological disorders, about 15% higher than normal.

All this affirms that, fortunately, there is no such thing as the "Sarajevo syndrome", that some expected.

Developments after the war

Data is included up to the year 1999.

The most obvious change is a growth in the group of developmental psychological disorders (F 80) among school children. That is the same category that shows a sudden drop at the beginning of the war. It is very important to differentiate between trauma and Posttraumatic Stress Disorder: although it is true that all citizens in the city during the war, including children, were exposed to traumatic events, it does not follow that they will all become psychologically ill.

On the other hand, in the post-war period, there is a significant drop in the achievement of educational potential in the sample analysed. This can be seen from the fact that compared to the pre-war period, there is a continual drop in the school success curve. Learning Disorders (F 81) are particularly evident. Unfortunately, these findings have concrete proof in the results of general school success in Sarajevo elementary schools. The psychological foundation of this situation is obvious: this drastic drop in educational achievement in the school population can with some certainty be interpreted as the expression of the exposure of the entire population to traumatic events.

The results of clinical research show another peculiarity in the post-war period, namely the consequences of stress on children who spent the war as refugees and then came back to Sarajevo. Most frequent are those psychological stress disorders

defined in the literature as Adjustment Disorder (F 43.2). The children who most often ask for help are school children who have difficulties with managing school material, combined with certain somatic symptoms such as headaches, problems with concentration, and a subjective feeling of lack of air and general weakness. Clinical treatment of such cases clearly shows that these problems are the expression of Posttraumatic Stress Disorder and restricted adaptation ability.

Conclusion

Some conclusions in brief:

1. there is an increase in the number of psychological disorders in the selected sub-population, compared to the pre-war period;
2. after war there is a marked growth in disorders from the category of Development Disorders, compared to the pre-war and wartime periods;
3. the presence of the clinical entity Posttraumatic Stress Disorder (PTSD) as given in the literature is evident, but at a significantly lower level than might have been expected, given the severity of the war;
4. Posttraumatic Stress Disorder (PTSD) is very likely manifested mostly as a problem with managing educational material;
5. the expected specific consequences of war stress on children did not materialise; there is no evidence of a “Sarajevo syndrome”.

Evaluation of the psychosocial adjustment of displaced children from Srebrenica

Nermin Đapo & Jadranka Kolenović-Đapo

Department of psychology, University of Sarajevo, Bosnia and Herzegovina

This program for psychosocial assistance of displaced children from Srebrenica who have been temporarily living in Vozuća was initiated in October 1999 and supported by UNICEF Bosnia and Herzegovina.

An initial psychological and diagnostic evaluation was made for the purpose of collecting data that will be useful for implementation of the psychological support program for displaced children from Srebrenica. The goals of this psychological diagnostic evaluation were:

- to determine the prevalence of war traumatic experiences;
- to determine the prevalence of the difficulties and problems of children after the war;
- to evaluate the psychosocial adjustment of children;
- to compare the psychosocial adjustment of displaced children from Srebrenica with a group of children who have experienced fewer war traumatic experiences.

Method

This research was conducted on 458 children from two elementary schools. The group of displaced children from Srebrenica consisted of 145 boys and 144 girls from the 5th, 6th, 7th, and 8th grades of the elementary school in Vozuća. The children were living in abandoned houses in Vozuća, mainly with their mothers or with female family members. The majority of children was exposed to multiple traumatic experiences, such as leaving their home town (95.16%), shelling (75.61%), house bombing (70.14%), meeting enemy soldiers (42.66%), shortage of food and water (45.67%), shooting (84.32%), being present while somebody else was wounded (48.07%). A significant number of children lost a male or female relative (59.09%) while 21.88% of the children lost their fathers. These children are also faced with numerous problems and difficulties after the war, such as the death of a person close to them (55.32%), not knowing whether they will have to leave their present residence (43.51%), lack of money for basic needs (37.54%). A large number of children (44.44%) say that a close person is reported missing.

The second group consisted of 94 boys and 75 girls from the 6th, 7th, and 8th grades of elementary school from the neighbouring town of Zavidovići. Children from this second group experienced significantly fewer traumatic events than the children from the first, and during the war they did not leave their homes. Also, there are significantly fewer post-war problems and difficulties than in the group of displaced children from Srebrenica.

The average age of children from both groups is 12 years and 10 months (SD = 1 year and 2 months) in a range from 10 to 16 years of age.

Both groups of children were administered the Impact of Event Scale (IES), the Depression Self-Report Scale (DSRS) and the Youth Self-Report (YSR).

- The original version of the Impact of Event Scale measures two stress reactions: a) re-experiencing thoughts, pictures, dreams and strong feelings caused by traumatic events ("intrusion" subscale), and b) avoiding thoughts and feelings caused by re-experiencing traumatic events ("avoidance" subscale). For the purpose of this research, the original version of the Impact of Event Scale (Horowitz and associates, 1979) was extended with items referring to arousal. Five items were taken from the RI Questionnaire (Reaction Index) that was used in a program of longitudinal observation of adolescents (UNICEF, UCLA, Sarajevo University). The frequency of reactions in the last fourteen days was evaluated on a four-point scale (0 – never to 3 – often).
- The Depression Self-Report Scale evaluates frequency of depressive reactions in children. It has 19 items that describe different emotional conditions. Frequency of emotional conditions is evaluated in the last week using a five-point scale (0 – never to 4 – almost always).
- The Youth Self-Report (YSR; Achenbach, 1991) evaluates level of children's' activity, social, total competence and nine syndromes: withdrawal, somatic problems, anxiety/depression, social adaptation problems, cognitive problems, attention problems, self-destructive behaviour/identity problems, delinquent behaviour and aggressive behaviour, together with the second-level scales internalizing and externalizing problems.

Results and discussion

Table 1 shows results of the Impact of Event Scale and the Depression Self-Report Scale.

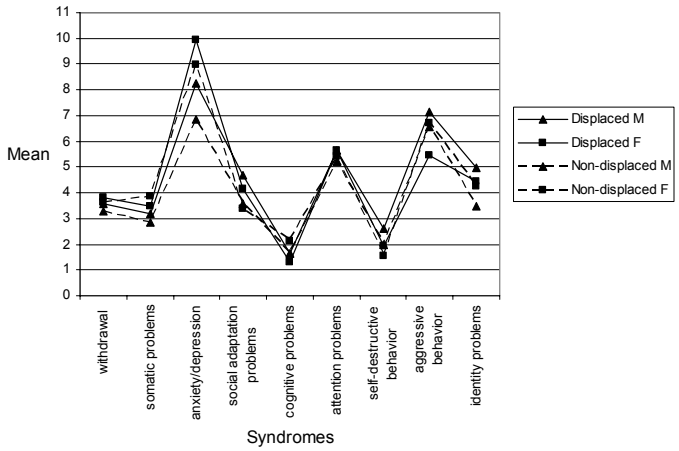
PTSD symptoms are significantly higher in the non-displaced group of children. By contrast, the group of displaced children from Srebrenica shows a significantly higher number of depression symptoms. Considering the fact that exposure to traumatic events is one of the important determinants of PTSD, these results may be surprising. However, in order to explain such results, one needs to know the broader context of events related to the fate of persons displaced from Srebrenica. The families of displaced children from Srebrenica are mostly incomplete. Large numbers of mothers and wives have lost male members of their families. Their husbands, fathers or brothers were killed, or have been reported missing. The mourning process is not over, and the fact that they still do not know what happened to their missing relatives further disables that process. On the other hand, there are the large and numerous post-war problems of the female family members of displaced children from Srebrenica: the lack of basic means to support themselves, the ever-present fear of eviction from their current residences, the inability to influence important life changes, etc. Therefore, significant depressive reactions in children from the first group are partially induced by the situation and conditions of their mother and adult

female members of their families. This hypothesis is confirmed by results of regression analysis that was carried out separately for two groups of children. The contribution of war traumatic events to depressive reaction is lower for the displaced children group (23,3%) than for non-displaced children group (37,4%)[5].

Table 1 Differences between displaced and non-displaced children on the Impact of Event Scale (IES) and the Depression Self-Report Scale (DSRS)

	Group of children	N	M	SD	t	df	p
intrusion / arousal[6]	Displaced	232	12.22	7.46	-2.06	367	0.040
	Non-displaced	137	13.92	8.01			
avoidance	Displaced	232	7.56	4.69	-3.78	367	0.000
	Non-displaced	137	9.47	4.67			
IES (total)	Displaced	232	19.78	10.57	-3.13	367	0.002
	Non-displaced	137	23.39	10.91			
DSRS	Displaced	285	23.59	9.58	6.253	450	0.000
	Non-displaced	167	17.85	9.11			

Figure 1: average values of syndromes for the two groups of children, separately for boys and girls.



As for the significance of sex and group (displaced and non-displaced) on a pupil's activity, social competency and total competency, we have determined a statistically significant effect of group on "activity" and a significant effect of sex on "total competence". It was determined that children from the non-displaced group (M = 4.68) when compared with displaced children group from Srebrenica (M = 4.09) are significantly more active (F = 17.80, df = 1, p < 0.001), and that girls (M = 11.64) have higher re-

[5] Đapo, N. (2000), Program psihosocijalne pomoći djeci Osnovne škole "Vozuća" u Vozući. Psihološko dijagnostičko snimanje. UNICEF

[6] Factor analysis of IES shows two important factors. The first factor is related to items that correspond to symptoms of intrustion and arrousal. Therefore, in the data analysis we have considered these two subscales as one factor.

sults than boys (M = 10.94) on the total competence scale (F = 9.39, df = 1, p< 0.001).

It was determined that girls have significantly more somatic problems, anxiety and depression than boys do. Boys show a greater degree of delinquent and aggressive behaviour. Girls have higher results on the scale of internalizing problems, while boys have higher results on the scale of externalizing problems(table 2).

Figure 1 shows average values of syndromes for the two groups of children, separately for boys and girls.

The effects of sex and group (displaced/non-displaced) on the results for scales of syndromes of internalizing, externalizing, tendency to give socially desirable answers and total problem scale were as follows. Significant effects of group were determined on the following scales: *Anxiety/depression, Social problems, Delinquent behaviour, Identity problems/self-destructive problems* and *Tendency to give socially desirable answers*. It was determined that the group of displaced children from Srebrenica showed more anxiety, depression, socially unacceptable behaviour, delinquent behaviour, identity problems and a tendency towards self-destructive behav-

Table 1 Results of descriptive statistical values and tested significance of difference between boys and girls on syndrome scales, internalizing and externalizing scales (we have listed only syndromes for which we have determined statistically significant difference)

	Sex	N	M	SD	t	df	p
II syndrome (Somatic problems)	m	222	3.05	2.77	-2.14	421	0.033
	z	201	3.62	2.68			
III syndrome (Anxiety/depression)	m	222	7.67	4.98	-3.87	421	0.000
	z	201	9.55	4.98			
VII syndrome (Delinquent behaviour)	m	222	2.34	2.49	2.65	421	0.008
	z	201	1.79	1.66			
VIII syndrome (Aggressive behaviour)	m	222	6.90	5.05	2.14	421	0.033
	z	201	5.93	4.27			
internalizing	m	222	14.17	8.84	-3.27	421	0.001
	z	201	16.92	8.40			
externalizing	m	222	9.24	6.83	2.54	421	0.012
	z	201	7.71	5.37			
socially desirable answers	m	222	18.05	6.12	-2.13	421	0.034
	z	201	19.30	5.97			

iour. The non-displaced group showed a tendency to give socially desirable answers.

Conclusions

Results of this research show that multiple exposure to traumatic war experiences has a negative impact on the psychosocial adaptation of children. During long-term posttraumatic adaptation, it is especially important that children receive from adults the support they expect . If children fail to receive that support, because the adults have their own problems and difficulties, various emotional, cognitive and behavioural problems may occur.

According to results from the evaluation of the psychosocial adaptation of displaced children from Srebrenica, we can conclude that besides direct work with children that have been through traumatic war experiences, it is important to give psychological support to their parents or caretakers and teachers.

War trauma of children in Tuzla

Rabija Radić

JZU Health Centre, Centre for Mental Health, Tuzla, Bosnia and Herzegovina

Goal

This research aims to assess the intensity of war trauma impact and posttraumatic consequences, as well as specific qualities of the social life of children surviving the war.

Neither the passage of time nor keeping up with the school curriculum is sufficient to erase the effects of traumatic war on elementary school children.

Sample

113 pupils in a Tuzla elementary school.

Methods

The first part of this longitudinal study was carried out in March 1997, the second part in March 1999. Subjects live in the area of the city in which a massacre took place on 25 May 1995, when 71 young persons were killed and over 200 wounded by a single shell.

Instruments:

- War Trauma Questionnaire (URT- record, Stuvland,1992)
- Impact of Event Scale (IES Horowitz & al., 1979)
- Birleson's scale of self-assessment (SES-Birleson, 1981)
- Questionnaire for identification of undesirable forms of behaviour (Ćehić, E.).

Results

Subjects had an average of 6 traumatic experiences; in the first survey 63,71% of subjects appeared to have a medium and high level of stress, while in the second survey this percentage increased to 69,02%; children appeared to be in a depressive mood during the first survey; the most unadjusted forms of behaviour was noted in children of medium and high levels of stress.

The action plan includes long-term psycho-pedagogical intervention and prevention of the development of serious disorders.

Longitudinal study of the war-related traumatic reactions of children in Sarajevo in 1993, 1995 and 1997

Renko Đapic* & Rune Stuvland

In collaboration with the research team:

Melita Sultanović, Hajrija-Saza Jahić, Đula Čerimagić, Ifeta Bajramović, Aida Lomigora

*Department of Psychology, University of Sarajevo, Bosnia and Herzegovina

This research is part of a UNICEF psychosocial project initiated in 1993.

Theoretical background

From the very beginning this project was created as a long-term longitudinal and action study, which was supported by UNICEF in 1993. The screenings had a number of goals:

- to determine the level of exposure of children in Sarajevo to traumatic events;
- to determine the level of posttraumatic and depressive reactions in children;
- to increase awareness of the impact of war on children, not only on a local, but also on an international level;
- to create a database for use in later evaluation studies;
- and to identify children at risk.

The first examination was carried out in 1993, and the following screenings were carried out two and four years later. This longitudinal research enables us to follow the course of development of traumatic reactions over time.

Hypotheses

- There is a positive relationship between exposure to traumatic events, posttraumatic stress syndrome (PTSD) and depressive reactions.
- Over time, PTSD and depressive reactions in children become weaker.
- However, there is a certain number of children who maintain a high level of reactions for quite some time.

Sample

The first examination was carried out in 1993 and included a sample of 507 children. The present contribution reports results obtained from:

- a sub-sample of 236 pupils tested in the first and second screenings (1993 and 1995);
- a sub-sample of 226 subjects tested during the second and third screenings (1995 and 1997); and

- a sub-sample of 75 children with full data from all three examinations (1993,1995 and 1997; referred to below as the "longitudinal sample").

Main instruments used

- Questionnaire on war-related traumatic events (URT: War Trauma Questionnaire, Stuvland & Đapić, 1993). This questionnaire, which consists of 25 self-assessment answers, was composed for this study. It tests exposure of children to traumatic events, separations and losses.
- Scale for self-assessment of depressive reactions (Birleson, 1981): a self-assessment questionnaire with 18 items for children, which was previously prepared (before the war) in former Yugoslavia and in particular in Bosnia and Herzegovina.
- Impact of Event Scale (Horowitz et al., 1978): a questionnaire with 15 self-assessment items for children, which was previously used in Croatia and other countries.

Other details

Systematic psychological screenings were carried out within complex psychosocial interventions during even the most difficult war conditions. Data were collected by school psychologists who were supervised by the first author.

Method

School psychologists and pedagogues gave the instrument to children, who filled them out on their own. Where necessary, younger children were provided with help in filling out the questionnaires. Some of the instruments had been validated previously in Croatia and had then been translated and adjusted to conditions in Sarajevo. Later, this data was processed and analyzed at Sarajevo University.

Table 1: Total number of "YES" answers to the list of experienced traumatic events in the URT (War Trauma Questionnaire)

No. of YES answers	URT1 (1993) (%)	URT2 (1995) (%)	URT3 (1997) (%)
0-5	21.4	20,0	21,3
6-8	42.9	43.2	38.9
9-11	29.8	28.6	29.6
12-14	6.0	7.3	8.8
15-17	-	0.9	1.3
Total	100	100	100

N=226

Results

The mean number of traumas suffered is fairly high: in each of the three examinations it appeared that over 78% of children have suffered between six and seventeen traumatic events (cf. table 1).

Statistical analysis implies a decrease of PTSD and depressive reactions over the course of time, with some notable variations, as follows.

- Girls express a larger number of depressive reactions (high scores on Birleson's scale) in all three examinations (cf. *table 2*).
- Younger subjects (both males and females) appear to have more depressive reactions than older subjects.
- In the third screening, in 1997, there was a statistically significant decrease ($p<0,001$) of the proportion of children receiving very high scores on the Birleson scale (see table 2). However, there is still a high percentage of subjects scoring above the cut-off level (15 points) on this scale, which means that there is still a significant number of children and young people showing a disturbing intensity of emotional suffering, reflected by a constantly depressed mood.

As for the stress reactions of intrusions and avoidance (IES), in all three examinations the low stress category includes the lowest percentage of subjects: the vast majority of children fall within the category of medium and high level of stress reac-

Table 2: depressive reactions (Birleson Depression Inventory). Longitudinal sample (N=75). Frequencies of high scores (≥15) and scores under 15 according to gender in examinations in 1993,1995 and 1997.

			Score	
Gender			<15	≥15
Male	1993 Birleson (1)	Frequency	25	7
		%	78.1%	21.9%
	1995 Birleson (2)	Frequency	29	6
		%	82.9%	17.1%
	1997 Birleson (3)	Frequency	35	1
		%	97.2%	2.8%
Female	1993 Birleson (1)	Frequency	19	12
		%	61.3%	38.7%
	1995 Birleson (2)	Frequency	28	10
		%	73.7%	26.3%
	1997 Birleson (3)	Frequency	31	7
		%	81.6%	18.4%

tions (cf. table 3).

Table 3: Distribution of stress reaction levels on the full Impact of Event Scale (IES):

	1993	1995	1997
Level of stress reactions	Frequency	Frequency	Frequency
	(Percent)	(Percent)	(Percent)
Low	88	55	55
(low:<20 points)	(8.9%)	(11.1%)	(24.3%)
Medium	477	234	99
(med:20-40 points)	(48.2%)	(47.3%)	(43.8%)
High	424	206	72
(high:>40 points)	(42.9%)	(41.6%)	(31.9%)
N=	999	495	226
Total	(100.0%)	(100.0%)	(100.0%)

Testing of the "longitudinal sample" (N=75), shows an increase in the percentage of subjects in the group with a low level of stress reactions. It also shows a decrease in the percentage of subjects with a high level of stress reactions, which is more significant on the sub-scale of intrusion reactions than on the sub-scale of avoidance reactions.

Conclusions

There is a significant prevalence of PTSD and depressive reactions in a large number of children, as a result of multiple traumatic experiences suffered during the war. Two years after the war, many of these consequences were still present in many children – possibly due to the significant impact of avoidance reactions. Such information is vital for anyone who has a counselling or pedagogical role in relation to young people, at school as well as in everyday life.

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Coping with traumatic stress – the role of some personality characteristics, socio-demographic characteristics, environmental factors and cognitive assessments

Elvira Duraković-Belko

Department of Psychology, University of Sarajevo, Bosnia and Herzegovina

These results are part of a larger research project aimed at examining the extent to which dispositional characteristics, particular aspects of traumatic events and of the posttraumatic environment, as well as cognitive assessments and ways of coping, determine the quality of adjustment of adolescents to war traumas.

Theoretical background

Empirical information on cognitive assessments and ways of coping with war trauma is scarce, although the majority of conceptualisations emphasize the importance of these factors in coping with and integrating traumatic experiences.

The present research is based on principles of the interactional approach, according to which responses to trauma are determined by the joint action of individual and environmental factors. This approach is specific to Lazarus's stress model (Folkman & Lazarus, 1991) and Wilson's model of post-stress traumatic reactions (Wilson 1989) which are chosen as the theoretical foundation of the present study. This study is designed with the goal of examining cognitive assessments and strategies of coping used by young people in Sarajevo in order to cope with their war experiences. An attempt has also been made to determine whether or to what extent the selection of certain ways of coping is linked to dispositional and socio-demographic and environmental features and variables of cognitive assessments.

Hypotheses

- The majority of interviewees will assess their war experiences as uncontrollable. Events will rarely be assessed as challenges, and cognitive assessments of threat and loss will dominate.
- Coping strategies directed at regulating emotions are expected to greatly exceed the use of coping directed at problem solution.
- It is also expected that certain personality traits and socio-demographic variables, environmental factors and cognitive assessments will be significant predictors of the coping strategies used.

Sample

The research was conducted on a sample of 393 students, from the first to the fourth grades in four Sarajevo secondary schools. The sample consists of 202 boys and 191 girls, average age 17 years.

Operationalisation of constructs and variables

Cognitive assessment variables:

- Assessments of the meaning of the worst war experience as threat, loss or challenge.
- Assessment of one's ability to control the worst war experience.

Coping styles:

- A questionnaire was designed based on previously adapted and translated forms of Lazarus's original.

Socio-demographic characteristics:

- Sex
- Educational status
- Integrity of interviewees' families
- Interviewee general adjustment before and during the war

Personality features:

- Eysenck's scale of extroversion (Loyck, 1984),
- Schemer's scale of optimism (Scheier, Carver, Bridges, 1994).
- Spielberger's scale of anxiety (AMDP and CIPS, 1990)
- Bezinović's scale of perceived incompetence, perseverance and externality (Bezinović, 1990).

Environment factors:

- Scale of perceived social assistance (Dubow and Ullman, 1989)
- War trauma questionnaire (Duraković, 1998).

Other details

Cognitive assessments and ways of coping were examined with regard to the worst traumatic event. After they had briefly described their worst war experience and answered questions relating to the assessment of meaning and control of events, the interviewees filled out a questionnaire of coping by assessing whether they used each of a list of strategies.

Method

Pilot research was done primarily on students of psychology to determine suitability and linguistic clarity of the chosen instruments. Following minor changes, the re-

search was carried out on a targeted sample of adolescents in four Sarajevo secondary schools, in a total of 16 classes. As the complete instrument battery consisted of a large number of questionnaires and scales, the research was conducted in two parts. Interviewees first filled out a part of the instrument battery intended for assessment of socio-demographic characteristics and personality features, and fourteen days later they answered questions related to their war experiences, ways of coping, and some measures of posttraumatic adjustment. The author collected the data, with the help of final year students of physiology, via group administration, during a school lesson. Participation in the research was voluntary.

Results

- Concerning cognitive assessments, the majority of interviewees (over 80%) reported perceiving none or very poor ability to control the event or the event's outcome.
- On the assessment of meaning, it was shown that for about 58% of interviewees, the worst war experience represented loss, and for almost 39% of them, a threat. Only 2.8% of interviewees assessed the worst war experience as a challenge.
- On eight out of nine scales of coping confirmed through factor analysis, it was shown that the interviewees mostly used wishful thinking and dreaming (M=3.24), then passivity (M=2.84), religion and fatalism (M=2.79), and reinterpretation (M=2.56). Rarely used were strategies of problem solution (M=1.95) and seeking social assistance (M=1.93), and most rarely used were expression of emotion (M=1.18) and humour (M=.90).
- To determine the connection between selected personality variables, socio-demographic characteristics, environmental variables and cognitive assessments, as independent variables and the assessed ways of coping as dependent variables, multiple regression analysis was carried out. The coefficients of multiple correlation obtained vary between R=.33 and R=.56, and depending on the set of predictors used, between 5% and 27% of total criteria variance was explained.
- The results show in particular that extraversion and persistence are linked with greater use of strategies like problem solving, seeking social assistance, and humour.
- Externality is a good predictor of passivity and reinterpretation as well as of religion and fatalism.
- Interviewees who reported generally poorer adjustment during the war had higher results on scales of emotion expression, wishful thinking and dreaming, reinterpretation, but also on the scale of problem solving.
- For cognitive assessments, it was shown that greater perceived control over events is linked to greater use of problem solving, reinterpretation and humour, that is, less use of passivity.
- While use of humour and reinterpretation are linked with situations assessed as threatening, expressing emotions is linked with situations assessed as a loss.

- Sex, anxiety and total number of war trauma are linked with emotional expression, while perceived social support from parents predicted only religion and fatalism.

Conclusions

These results clearly show that the war traumatic events our interviewees experienced, which were not only outside of their control objectively, were also almost always subjectively assessed as such. As expected, the number of events perceived as challenges is negligible. On the other hand, the percentage of assessments of loss is disturbingly high. Given the objectively and subjectively small possibility of control over events, it is quite understandable that wishful thinking and dreaming, passivity, religion, fatalism and reinterpretation are the most often used ways of coping. On the other hand, it is surprising that seeking social support and expressing emotions are so rarely used, as much other research suggests opposite results in similar "difficult" and uncontrollable situations.

Finally, it was shown that the use of certain strategies of coping can be predicted on the basis of certain individual characteristics and the cognitive assessments of the meaning of events rather than on the basis of environmental factors, which is in accordance with findings of other research also. It remains to be seen whether certain coping strategies lead to better posttraumatic adjustment, and if so, which ones.

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The relation of war-related traumatic experiences to locus of control and fear of negative evaluation in pupils in secondary schools

Fehim Rošić

2. Secondary School, Cazin, Bosnia and Herzegovina

Introduction

The extremely dangerous and disastrous nature of war means that wars leave incalculable consequences on people's lives and the issue of psychological trauma is therefore one of the dominant issues of scientific theory and practice. The issue of war-related trauma in children and the younger population is very delicate for many reasons, primarily because of the importance of childhood and youth in the development of personality. In this humble empirical research we have tried to answer the question of whether traumatic experiences made any impact on the level of externalisation and the level of fear of negative evaluation in this population, and if so, to what extent.

Theoretical background

Locus of control was developed as a part of Rotter's theory of social learning, according to which an individual expects that through his or her own behaviour, he or she can accomplish a desired outcome. There is significant variation in such expectations between individuals, depending on the factors to which individuals attribute outcomes. Locus of control could be considered as that part of the theory of attribution which deals with causality perception, namely with the subjective explanation of why something has happened. Externally-oriented individuals, that is, individuals with external locus of control, usually attribute the causes of a person's behaviour, success, or failure, to external circumstances, i.e. to luck, destiny or something similar. At the other end of the continuum, there are internally-oriented individuals who believe that they can control everything in their surroundings with their actions. These persons see themselves as a source of control of their own actions and destiny; they attribute the causes of success and failure to features of themselves, rather than linking them to external factors. The results of many studies report that internally-oriented individuals are more successful in coping with everyday life difficulties, and that they are better adjusted than externally oriented individuals. Fear of negative evaluation is considered as one of the aspects of social anxiety that is manifested in a series of social-psychological phenomena: self-understanding, conformism, pro-social behaviour, self-presentation, attributive style, social facilitation, frequent changes of attitude, etc. (Anić, 1990.). A high result on the scale of fear of negative evaluation indicates that a person expresses a high level of anxiety in situations which could be evaluated *as negative* by some other persons.

Methodology

Aim and tasks of the research

The aim of the research was to determine whether experienced traumatic events affect locus of control and fear of negative evaluation in this population, and if so, to what extent. In other words, the aim was to determine whether the subjects of this sample who suffered war-related traumatic experiences will differ from those who have not suffered such experiences, as regards the level of externalisation and fear of negative evaluation.

Subjects

The selected sample of this research included pupils of the secondary school in Cazin. The sample is described in Table 1.

Table 1. Number of pupils by class and sex

Sex	Classes				Σ
	I	II	III	IV	
Male	18	24	12	7	61
Female	15	11	21	30	77
Total	33	35	33	37	138

Methods and instruments used

In this research a descriptive cross-sectional survey was used with the aim of collecting direct written information from the subjects.

The following instruments were used:

- Questionnaire on Case History
- Externalisation Scale (Bezinović, 1990)
- Fear of Negative Evaluation Scale (Bezinović, 1990)

Hypothesis

Pupils of the secondary school who suffered war-related traumatic experiences report a statistically significantly higher level of externalisation and fear of negative evaluation, as opposed to pupils who had no such experiences.

Relationship between traumatic experiences and locus of control

In Table 2 one can see some basic results of the research related to attitudes of traumatic experience towards locus of control:

Table 2. Locus of control in relation to type of traumatic experience, by sex

Type of traumatic experience	Sex	Number of subjects who		Difference in mean level of externalisation between exposed and unexposed for each sex	t – ratio
		Suffered traumatic experience	Suffered no traumatic experience		
Displacement	M	20	41	1.34	0.71
	F	17	60	1.75	1.07
	Σ	37	101	0.58	0.44
Loss in family	M	29	32	-1.43	0.67
	F	44	33	0.75	0.44
	Σ	73	65	0.27	0.21
Shelling and other war activities	M	35	26	-3.71	*2.16*
	F	38	39	1.71	1.45
	Σ	73	65	-1.11	0.98
Severe wounding and disability in family	M	22	39	0.36	0.19
	F	20	57	0.09	0.06
	Σ	42	96	-0.46	0.36

On the basis of data given in Table 2, the following points can be made:

- If we observe the sample as a whole, the difference in the levels of externalisation of those who had suffered the traumatic experience and those who had not was not statistically significant (for any of the four traumatic experiences). In other words, that part of the hypothesis that refers to the level of externalisation is not completely confirmed.
- The only statistically significant difference in the levels of externalisation, although a negative one, was reported in the male subjects when asked about the

experience of shelling. In other words, we could be 95% certain that this difference would appear in the background population as well. That is, males of this age who have suffered these experiences would have lower scores on the Scale of Externalisation. It is possible that these experiences made an impact on "accelerated maturing", strengthening the coping mechanisms of this population. Since this refers to males only, the question of the impact of traditional and cultural factors during upbringing arises. This is additionally confirmed by the fact that the difference in the level of externalisation regarding all four traumatic experiences in female subjects is positive, although not statistically significant.

Table 3. Fear of negative evaluation in relation to type of traumatic experience, by sex

Type of traumatic experience	Sex	Number of subjects who		Difference in mean level of fear of negative evaluation between exposed and unexposed for each sex	t – ratio
		Suffered traumatic experience	Suffered no traumatic experience		
Time in displacement	M	20	41	-0.90	0.45
	F	17	60	1.08	0.48
	Σ	37	101	-0.61	0.39
Loss in family	M	29	32	1.18	0.53
	F	44	33	2.35	1.16
	Σ	73	65	2.31	1.53
Shelling and other war activities	M	35	26	2.68	1.29
	F	38	39	-3.64	1.34
	Σ	73	65	-1.21	0.68
Severe wounding and disability in family	M	22	39	-1.86	0.86
	F	20	57	4.08	1.92
	Σ	42	96	0.58	0.35

In table 3 we can see that differences in mean results obtained on the scale of fear of negative evaluation between groups of subjects who suffered traumatic experiences and those who have not appeared not to be statistically significant. Therefore, this part of the hypothesis cannot be accepted.

Conclusion

The aim of this rather modest empirical study was to examine some issues regarding the relation between traumatic experiences on the one hand, and locus of control and fear of negative evaluation on the other. Indeed, the complexity of that relationship is far too big to be examined on the basis of a small number of questions, therefore there is still much work yet to be done on this issue.

However, we can say that traumatic experiences have a certain impact on these two variables, which is very specific. The important thing to note is that this relationship is influenced by several factors, including education and different cultural and traditional factors, which to some extent determine the social role of an individual in his community, i.e. group. This relationship is still not linear or simple, but the results are undoubtedly influenced by it.

War exposure and maternal reactions in the psychological adjustment of children from Mostar, Bosnia-Herzegovina.

Patrick Smith

Institute of Psychiatry, University of London, U.K.

The full version of this article was published in the Journal of Child Psychology and Psychiatry[7].

Theoretical background

There is an emerging consensus that after exposure to the atrocities of war, children may show high levels of posttraumatic stress reactions. There is also evidence for increased rates of anxiety and depression among child survivors of war. However, relatively little is known about the multiple risk factors that contribute to poor adjustment in children. First, both the degree and type of exposure to war events is significantly associated with posttraumatic stress symptoms: greater exposure, exposure to very strong sensory impressions, and (perceived) direct life threat during exposure are all associated with a worse outcome in children. Second, family factors may be important in children's adjustment: there is evidence that maternal mental health is a significant mediator of children's mental health in times of conflict. The aim of the present study was to investigate the relative importance of direct exposure and family factors in children's psychological reactions to war.

Hypotheses

It was predicted that:

1. Child exposure and distress across a broad band of measures would be high;
2. Distress would be associated with exposure;
3. Distress would also be associated with maternal mental health after controlling for the effects of exposure.

Sample

Participants were a representative sample of n = 339, 9 to 14 year olds, their mothers, and their teachers. All participants lived in Mostar, Bosnia-Herzegovina.

[7] Smith P, Perrin S, Yule W, & Rabe-Hesketh S (2001). War exposure and maternal reactions in the psychological adjustment of children from Bosnia-Hercegovina. Journal of Child Psychology and Psychiatry and Allied Disciplines. Vol 42, No 3, pp 395-404, Cambridge University Press.

Main instruments used

Data collection was via self report questionnaires and behavioural rating scales.

Children

Exposure: War Trauma Questionnaire (Macksoud 1992)

Posttraumatic stress: Revised Impact of Event Scale (Horowitz, Wilner,& Alvarez, 1979; Dyregrov, & Yule, 1995)

Childhood depression: Depression Self Rating Scale (Birleson, 1981).

Anxiety: Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1978).

Grief: Brief Grief Inventory (Nader, Pynoos, Fairbanks, Al-Ajeel & Al-Asfour, 1993).

Mothers

Depression: Beck Depression Inventory (Beck, Rush, Shaw & Emery,1979)

Anxiety: Spielberger State Trait Anxiety Inventory (Spielberger, Gorsuch, Luschene, Vagg, & Jacobs, 1983)

Screening for psychiatric disorder: General Health Questionnaire (Goldberg & Hillier, 1979)

Behaviour ratings of children: Strengths and Difficulties Questionnaire (Goodman 1994)

Teachers

Behaviour ratings of children: Strengths and Difficulties Questionnaire (Goodman, 1994)

Other details

Data were collected at the beginning of 1996, a matter of months after the signing of the Dayton Accord, and some two years after the Washington Agreement. The screening survey was carried out as part of a large scale assessment to plan and develop services for children. This psychosocial programme was funded by UNICEF initially, and later by the European Union.

Method

The study was a questionnaire study, and data collection was carried out via schools.

Results

First, self report data from children revealed high levels of posttraumatic stress symptoms and grief reactions, but normal levels of depression and anxiety. Mothers'

self reports also indicated high levels of posttraumatic stress reactions, but normal levels of depression and anxiety. Second, children's distress was related to their overall level of exposure to the traumatic events of war, and to the type of exposure. War exposure which involved a perceived direct threat to life was the strongest predictor of posttraumatic stress symptoms. Exposure was strongly associated with posttraumatic stress, but weakly associated with depression. Third, structural equation modelling showed that children's distress was also related to maternal distress after controlling for the effects of shared exposure. The size of the effect of exposure and maternal mental health on children's distress was the same.

Discussion/conclusions

Both children and mothers showed remarkable resilience in the face of extraordinary adversity in that, overall, levels of depression and anxiety were not raised. This suggests that in some ways, the community was coping well. However, both mothers and children showed a strong and specific reaction to having lived through war: they reported high levels of posttraumatic stress symptoms. First, it was confirmed that among children, their posttraumatic stress reaction depended on what they had experienced. Those children who had been exposed to more traumatic events during the war reported more symptoms of posttraumatic stress; and those children who had thought that they were going to die at some point were particularly at risk. Second, it was shown that children's reactions were also related to their mother's reaction after controlling for exposure. A number of factors might explain this association within families. Children and mothers may share a vulnerability to developing an adverse reaction. They may have been exposed to similar sorts of traumatic events during the war; or have been confronted with similar kinds of traumatic reminders in the aftermath (destroyed buildings, for example); or share the same post-war living conditions; or share similar learned coping styles. Another sort of explanation concerns the dynamic interrelationships within families. Clinical evidence indicates that parents and children may get locked into cycles of not talking to each other about the event for fear of upsetting them. In other words, mother and child negatively reinforce each other for avoiding processing their traumatic memories, and this may maintain the symptoms of both. Clinically, these data imply that large numbers of children may develop symptoms of PTSD after exposure to war, and that community based programs aimed at reaching large numbers of children would be appropriate. When these reactions depend foremost on what has happened to the child, it will be important to address this in any treatment programme: that is, helping children to address and process their traumatic memories will be necessary, whether that be in group treatments or schools-based programmes. These data also highlight the importance of family reactions in mediating children's distress. In this case, for large scale community programmes, educating and supporting families, fostering school-home links, and setting up special support groups for parents may be effective.

Influence of trauma on school achievement

Zumreta Behrić

J.U. Secondary School, Cazin, Bosnia and Herzegovina

Hypotheses

It is assumed that traumatic experiences negatively influence school achievement.

Sample

116 students from the third grade of a secondary school.

Instruments

Arpad Barath questionnaire on symptoms of PTSD (T1:T2)

Other details

The traumatisation was a consequence of war experience (91 respondents), and of trauma from early childhood and post-war trauma (25 respondents).

Method

Survey method.

Results

21 participants or 18% had severe symptoms of PTSD, 25 participants or 37,3% had light symptoms, and 49 participants or 43,09% had minimal or no symptoms. It was found that participants with severe and very severe symptoms (21) had difficulties with studying, 17 of them or 80% have low achievement (results from mid-term 1999/2000), of participants with light symptoms (45) 28 or 62,2% had low achievement and of participants with minimal or no symptoms (50) 16 of them or 32% had low achievement. The participants are of average or a little above average intelligence and they were highly motivated to achieve results in the gymnasium, which was determined at the beginning of school year.

Conclusion

The results of the research show that traumatic experiences influence school achievement.

Psychological war trauma and achievement motive

Jovan Savić

Department of Psychology, University of Banja Luka, Bosnia and Herzegovina

Theoretical basis

The effects of stressors experienced during the war did not cease with the signing of the peace agreement and the end of the war. In an unfavourable post-war situation, their effect is extended, creating “chronic traumatisation" (Pynoos et al. 1996). The state of traumatisation, as many authors have pointed out, is characterised by a feeling of loss of control over one’s own life and an increase of insecurity (Thompson, 1980), leading to a feeling of helplessness ("learned helplessness", Seligman, 1967) and moving the locus of control to exterior control (Rotter, 1966, 1990).

Learned helplessness is closely related to a weakening of motivation, emotional adjustment ability and cognitive effectiveness (Green, 1995).

In this paper, the connection is explored between stressors (the state of traumatisation), learned helplessness, locus of control and the experience of quality of life on one side and achievement motivation on the other. We relied upon the theoretical model of achievement motive due to Atkinson et al. (1966) as well as on Raynor’s (1974) extension of this model. The research is non-experimental.

Research objective

The objective of this research is to answer the question of whether war stressors and unfavourable conditions of life after war affect the achievement motive in adolescents.

Sample

The subjects in this research were students of the second and third grades of secondary schools. 651 adolescents were examined. The research was carried out in Banja Luka, Prijedor, Doboj, Derventa, Višegrad and Rudo. The majority of subjects (92%) were 17 or 18 years of age.

There were three main groups of subjects:

- non-displaced – adolescents who were not displaced during the war (N=396);
- displaced adolescents (N=194);
- adolescents in collective centres (N=49);

plus 12 others.

268 boys and 383 girls were tested.

Research problems

- To study the structure of emotional variables affected during the war and in the post-war period, such as stressor effect, learned helplessness, locus of control and experience of the quality of life.
- To assess variables of achievement motive in three groups of subjects.

Furthermore, we wanted to examine the connection between these two groups of variables.

Main instruments used

The following instruments were used in the research:

- A questionnaire on general information on subjects (Savić & Ginić).
- A list of stressors, for which the subjects answered whether or not they were exposed to the described stressor during the war. 10 stressors were selected, based on our previous adolescent population research (Savić & Dimitrijević).
- A scale of quality of life (Kovačević). This scale consists of 12 items related to different aspects of life (material conditions, mental and physical health, potential to satisfy cultural needs and the need for entertainment etc.). Subjects assessed each of the 12 items on a 5-degree scale. During the statistic data processing, we established that the internal consistency of items was quite high (0.82), which allowed us to speak of a general score for the quality of life, that is, general life satisfaction.
- A scale of learned helplessness (Opačić), a five-point Likert scale containing 30 items. Its reliability is satisfactory (0.81).
- A scale of locus of control (Opačić), a five-point scale consisting of 11 items. Its reliability is 0.78.
- The MOP test of achievement motivation (Havelka & Lazarević), consisting of three variables:
  - Achievement motivation (coefficient of reliability = 0.73). This part of the scale measures the general achievement motive, similar to the one Atkison called “need for achievement”.
  - Anxiety in the service of success (reliability coefficient = 0.66). This part of the scale serves to measure positive emotional participation and emotional self-control in situations of achievement.
  - Anxiety in the service of failure (reliability coefficient = 0.74). This part of the scale measures negative emotional participation or emotional inhibition in situations of achievement.
- A questionnaire composed of nine individual items focusing on attitudes towards education and future employment, indicators of intrinsic and extrinsic motivation, as well an assessment of the effect of experience of war and post-war conditions on motivation to study (Savić).

Hypotheses

- The three groups of adolescents: non-displaced, displaced, and displaced in collective centres, are statistically significantly different on stressor variables, learned helplessness, locus of control and assessment of the quality of life.
- The three adolescent groups are also significantly different on motivational variables and school grades.
- Motivational variables and school marks are significantly related to emotional variables (traumatisation, helplessness, locus of control and assessment of the quality of life).
- Positive emotional components of the achievement motive are particularly affected by the negative post-war environment and chronic traumatisation. We assume that traumatisation represented a negative factor disturbing the functioning of the achievement motive.

Data analysis

The following methods were used in the statistical data processing: chi-square test, t-test, correlation analysis, regression analysis, and factor analysis.

Results

Stressors

The stressors most frequently mentioned by our subjects were:

- fear for the security of immediate family members (82%),
- death of a relative (59%),
- injury of a family member (52%).
- There was also a high percentage of those who spoke of poor life conditions (53%).

As far as differences between groups go, differences on all stressors are statistically significant, except on one stressor: “death of a relative” (in all three groups, there is a high percentage of subjects who experienced this). The largest number of stressors was reported by subjects in collective centres, followed by displaced and non-displaced adolescents.

Emotional/experiential variables

The three aforementioned groups of adolescents are significantly different on variables of locus of control, learned helplessness and quality of life. The most affected adolescents are those in collective centres, followed by displaced and non-displaced adolescents.

Motivation

We isolated three motivation factors using factor analysis:

- achievement motivation;
- jeopardised motivation to study, due to the war and to post-war circumstances;
- intrinsic motivation.

From the motivation variables, only anxiety in service of failure is significantly related (R=0.30) to learned helplessness, locus of control and variables of quality of life.

The motivational variables are, according to our findings, poor predictors of school marks. Differences in motivation between groups are not high. The most significant differences were between the groups of non-displaced adolescents and those who live in collective centres. There is a somewhat smaller difference between displaced adolescents and those living in collective centres. There is almost no difference between displaced and non-displaced adolescents. The significant differences in motivation are concentrated on the emotional aspects, that is, anxiety in service of success and anxiety in service of failure. This latter is stronger in adolescents in collective centres.

Discussion/conclusion

These results show differences between the groups in variables of helplessness, locus of control and quality of life. The worst scores on these scales are adolescents in collective centres, followed by the displaced and non-displaced adolescents.

Almost all people living in the Republika Srpska suffer from war-related stress and according to the findings of this research, the entire population of young people has experienced severe stress. However, adolescents in collective centres were exposed to the highest number of stressors, followed by the displaced adolescents and finally the non-displaced adolescents.

In this research, no significant relationship between motivational and emotional variables was determined. The only significant relationships were those between two sub-scales of achievement motivation (anxiety in service of success and inhibitory emotions), which were related to achievement on the one hand, and locus of control and quality of life on the other.

The results of this research support the thesis that war trauma and negative post-war circumstances in life negatively affect achievement motivation. Rehabilitation after trauma is probably a necessary precondition for successful development and for achievement motivation to function.

Socio-demographic characteristics of children and their experience of war-related trauma

Branko Milosavljević & Vladimir Turjačanin

Department of Psychology, University of Banja Luka, Bosnia and Herzegovina

Introduction

Research conducted in our country showed that traumatic experiencing and processing and the consequences of an imbalance between the acceleration of threats caused by war, the war environment and children's mental capacity, could be presented in the form of a "Model of stress in children in a war context" (Milosavljević, 2000). This model helps to identify the presence of the war psychological trauma syndrome (SRPT), i.e. with children who were exposed to a cluster of war stressors and the war environment, we can expect permanent negative effects, which are not defined as illness but rather as psycho-physical cognitive blocks and affective burdens. These result in reminders of the war experiences or war associations, and produce variations in the psychological activity of children. Our general hypothesis is that the vast majority of children in the war environment acquired a particular repertoire of mediation processes that affect their activity, which can depend on the socio-demographic characteristics of the children as well as on other circumstances.

Aim

The aim of this research was to determine the relationship between certain socio-demographic characteristics of children and their traumatic experiencing and processing, and to elaborate this relationship.

Methods

Sample

Research was carried out on a random sample of pupils and students from the Republika Srpska (N=822, M=45% and F=55%). The sample was made up of 40% displaced children and 60% subjects who remained in their places of residence during the war. The ages of the subjects when war broke out in 1992 were as follows:

- subjects who were 4 years old (born in 1988, now in the sixth grade of elementary school),
- age 6 and 7 (born in 1986, now in the eighth grade of elementary school),
- age 7 and 8 (born in 1985, now in the first grade of secondary school),
- age 9 and 10 (born in 1983, now in the third grade of secondary school),
- and age 11 and 12 (born in 1981, now in the first and second years of university).

Scales

- A questionnaire with questions related to socio-demographic characteristics;
- A list of stressful events;
- Scales COPED, COPID and SEVH, as follows:
  - COPED scale (way of coping with reminders of war-related events) consists of 10 items, and its reliability is measured by alpha coefficient is 0.88.
  - COPID scale (avoidance of experienced events) consists of 10 items, and its reliability is 0.77.
  - SEVH scale (emotional connection to place of residence) consists of 12 items, and its reliability is 0.79.

The author of the COPED and COPID scales is Milosavljević (1992), and the authors of the SEVH scale are Milosavljević, Powell and Turjačanin.

Results

Prevalence of stressful events

According to the results, of 822 subjects, all had experienced some stressful event. Approximately one third of subjects had experienced between 1 and 6 war-related stressful events, and two thirds of them had 7 and more war-related stressful events. Of the whole group, 43% of them had 10 or more such events.

Coping with reminders of war-related experiences

Of 822 subjects, only 21 of the subjects tested with the COPID scale and 53 of the subjects tested with the COPED scale stated that they do not have any reminders of war time events whatsoever. The vast majority of children who had been in the war environment suffered several stressful war-related events, and even 4 years and 5 months after the war, they are still coping with them.

Displacement

According to the results of this research, the war as a cluster of stressors mostly affected displaced children. They experienced a mean of 10.06 different stressful events and in that regard, they significantly differ from their non-displaced peers.

Results of the COPED and COPID scales showed that displaced and non-displaced children cope with reminders of war-related events in similar ways. In other words, there is no statistically significant difference between them in this respect. The displaced children are significantly less connected to their environment than the non-displaced children. Such a reaction is quite normal, because they do not see their current residence as an environment to which they belong.

Loss of close family members during the war

Children who suffered the loss of immediate or other relatives have significantly more other stressful events during the war than children who have not suffered any losses. These children have, on average, higher results on scales of coping with suffered war-related experiences, than children who suffered no loss of immediate relatives during the war. Since they suffered more stressful events, they now have to cope with more reminders of horrible events experienced during the war.

Gender

According to the COPID and COPED scales, the war as disastrous stress affected girls more than boys. Although there is no statistically significant difference between girls and boys in relation to the number of experienced stressful events, girls significantly differ from boys in terms of the degree of coping with reminders of events experienced and the degree of avoiding the memories of events experienced during the war. According to the results of this research, girls have more difficulties in dealing with evoked war horrors, and they tend to avoid memories of such events much more than boys.

Discussion and conclusion

First of all, the results of this research showed that most children who were exposed to disastrous war stressors are still having to deal with their war-related traumatic experiences even four-and-a-half years after the end of the war. This finding is in accordance with the "Model of stress of children in the war context" (Milosavljević, 1992, 2000), as well as with knowledge about long-term memory about contents connected to intense emotions and other study findings (e.g. Bartlet, 1932; Schank, 1977; Roch, 1978; Hamilton, 1981), which have shown that repeated experiences of traumatic events (and as a rule, this happens in war affected areas and war environments) lead to the construction of mental representations which have an impact on human mental activity. Also, these results are in accordance both with the Residual Stress Theory (Figley, 1978), according to which stress has a tendency to become permanent, and with findings from people who survived fascist concentration camps during the second World War (Wolf, 1996), which showed that such traumatic experiences affected the entire life of those people.

Secondly, the processing of traumatic events in children from war-affected areas and a war environment depends on socio-demographic variables, such as displacement, age, gender and loss of immediate relatives.

Our findings about the relation between traumatic processing and displacement show that displaced children are a particularly traumatised population. This finding is in accordance with findings of other authors (e.g. authors listed by McFarlane et al., 1996).

Results obtained in this research regarding age and traumatic processing conform to the findings of other authors (e.g. Eth & Pynoos, 1985; Macksound et al, 1993), which show that some differences in terms of vulnerability to stressful events could

be explained by differences in age, i.e. differences in the development of a repertoire of cognitive, emotional and motivational reactions to stressful events.

As for the consequences of war, girls appeared more vulnerable than boys. This difference is usually explained by two theses, which have been cited directly and indirectly in several works (e.g. Den & Ensel, 1981; Phillips, 1981; Billings & Moos, 1982; Caldwell & Dyregrov, issued by UNICEF for Bosnia and Herzegovina): a) a genetic predisposition in women to experience fear more than men and b) the opinion that this is due to the system of socially accepted gender roles in which women are permitted to express more uncontrolled emotions, especially fear, than men.

Children who suffered loss of immediate relatives during the war have a hard time with reminders of war-related events, and they tend to use avoidant coping with war-related events. Our finding is in accordance with the research of other authors (e.g. Pynoos et al., 1996), which points to possible chronic consequences of disastrous events and their negative effects on other stressors. According to some authors (e.g. Aarts et al., 1996), such events can act as a trigger for affective intolerance.

Posttraumatic adjustment of younger adolescents who suffered traumatic loss of or separation from their fathers

Sibela Zvizdić* & Willi Butollo

*Department of Psychology, University of Sarajevo, Bosnia and Herzegovina

This research is part of a bigger research project, 'Losses and separation in adolescence', by Sibela Zvizdić, which was conducted in collaboration with the VW-Stiftung Trauma Program, led by Prof. Dr. Willi Butollo.

Theoretical background

The war in B&H (Bosnia and Herzegovina) destroyed many families. Many of them suffered losses of family members, and a significant number of children were left without one or both parents. Children who suffered the loss of their fathers, the fate of whom remained unclear, constitute a special group. In other words, the Bosnian public is still concerned with the uncertain destiny of missing persons – innocent civilian victims from Srebrenica, Žepa and other occupied cities of eastern Bosnia. Also, at the beginning of the war, some children were forced to leave the country with their mothers, and spent the war abroad as refugees. Children were thus forcibly separated from their fathers, who play a crucial role in child development.

Wilson's Model of Traumatic Stress (1989) was used as the theoretical background for this research.

Problems

- To examine the level of long-term posttraumatic adjustment (psychological state, behavioural problems and school achievement) of younger adolescents who during the war suffered the traumatic loss of their fathers, i.e. his death or disappearance, or separation from their fathers.
- To determine the posttraumatic adjustment of the male and female subjects.

Sample

A sample (N=816) of younger adolescents, aged from 10 to 15, was divided into four sub-samples:

- 201 subjects who suffered traumatic disappearance of their fathers during the war (106 boys and 95 girls);
- 208 subjects whose fathers were killed during the war (105 boys and 103 girls);
- 204 subjects who were separated from their fathers during the war, and who spent the war abroad with their mothers (104 boys and 100 girls);

- 203 subjects forming a comparison group, who spent the war in Bosnia and Herzegovina with their parents; their parents were alive at the time of research (99 boys and 104 girls).

Data on variables of the subjects' behaviour were collected from their mothers (N=815) and class teachers (N=415).

Instruments

- For the purpose of testing the exposure of subjects to war and post-war stressful/traumatic experiences, the following questionnaires were used:
  - War Traumatic Events Questionnaire (Zvizdić, 1997) and
  - Post-war Stressful/Traumatic Experiences Questionnaire (Zvizdić, 1997);
- To determine the level of posttraumatic stress reactions, the revised Impact of Event Scale-IES was applied (Yule & Dyregrov, 1995), which is designed to measure the intrusive symptoms, avoidance and hyper-arousal symptoms.
- As a measure of depressive reactions in children, Birleson's Depressions Scale (Birleson, 1981) was used;
- To determine the level of anxiety, the Spielberger Scale for Assessment of Anxiety State was applied (Spielberger, Gorsuch & Lushone, 1970);
- As a measure of psychosomatic symptoms in children, the Psychosomatic Reaction Questionnaire was used (Keresteš, Kuterovac & Vizek-Vidović, 1994);
- To determine behavioural problems:
  - The Scale of Behavioural Disorder of Pupils – for teachers, and
  - The Scale of Behavioural Disorder of Children – for mothers (Barath, Franc, Vizek-Vidović & Kuterovac, 1994).

Method

This research was conducted in 1997/1998 with the consent of school authorities and of the subjects' mothers. The instruments were applied to groups of up to 20 subjects. The school achievement of younger adolescents was taken from school documents.

Results

Applying analysis of variance, it was determined that *all four groups of subjects significantly differ from one another in terms of exposure to war and post-war traumatic experiences*. This result was expected since the adolescents who were expelled from eastern Bosnia, and whose fathers are still missing, suffered a number of traumatic experiences, such as direct personal threat, witnessing violence, loss of significant others, loss of living place and loss of other material possessions, together with post-war traumatic experiences. Because of these results, in the subsequent analyses we included two covariates - war and post-war traumatic experiences. The purpose of the introduction of covariates was to control the impact of other war and post-war stressors on posttraumatic adjustment of younger adolescents.

Using MANOVA a global comparison was made between the subjects of all four groups, followed by a series of ANOVA with each of the indicators of posttraumatic adjustment of the younger adolescents as dependent variables. The results of the MANOVA showed that *all four groups of subjects differ significantly in the levels of depressive reactions, psychosomatic symptoms, intrusive symptoms and hyper-arousal symptoms, together with behavioural problems, and school achievement*.

The results of Student-Newman-Keuls tests of significance revealed that *subjects whose fathers disappeared during the war have significantly higher levels of depressive reactions compared with the other three groups of respondents, in particular, higher than those whose fathers had been killed.* How can we explain the obtained results? It is known that one is less upset when a difficult situation has been cleared up, even when the outcome is not that which would have been preferred. In a parallel way, unresolved situations tend to make a person confused, emotionally unstable and helpless. The traumatic disappearance of a loved person creates so-called "ambiguous" situations. Boss (1987; 1991) states that in such cases, individuals usually tend to make unrealistic interpretations and projections, which usually increase, rather than decrease, the levels of depression and anxiety. Therefore, "ambiguous" situations which are characteristic for respondents whose fathers had disappeared during the war obviously lead to adaptation difficulties and can provoke insecurity and in particular depression (Zvizdic & Butollo, 2001). The results for the other dependent variables apart from depression, achieved with Scheffe and Student-Newman tests of significance, are not reported here. The MANOVA results show *significant differences in the level of posttraumatic adaptation according to gender* (the difference in *hyper-arousal symptoms* is of borderline statistical significance). The ANOVA results reveal that girls have significantly higher levels of depressive and anxious reactions, psychosomatic symptoms, intrusive symptoms and avoidance symptoms than boys. Boys have significantly higher levels of behavioural problems and poorer school achievement than girls.

Conclusion

The four groups of respondents differ significantly in the levels of posttraumatic adjustment (*depressive reactions, psychosomatic symptoms, intrusive symptoms and hyper-arousal symptoms, together with behavioural problems, and school achievement*). *On top of the multiple traumas to which early adolescents were exposed during the war in B&H, the disappearance of the father has an additional effect on their depression.* Since this research was conducted at the end of 1997 and the beginning of 1998, and bearing in mind that our participants lost their fathers during the years of the war (1992-1995), than we can conclude that the *traumatic disappearance of the father has an impact years after the trauma.*

Further, we presume that the fact that boys report fewer of the above-mentioned symptoms is because that is in accordance with the expectations of the social surroundings, in the sense that males should mask their feelings and make an impression of invulnerability. Further we presume that this role is too difficult - even for an adult man - so the boys' "masked" reactions are canalized and ventilated through behavioural problems and poorer school achievement.

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War-related traumatic experiences and psychosomatic reactions of younger adolescents

Arijana Osmanović* & Sibela Zvizdić

*Primary school 9 May, Pazarić, Bosnia and Herzegovina

Introduction

Traumatic childhood experiences and their consequences are becoming more and more significant for psychology. Research conducted to date indicates that war as a complex trauma has a very strong impact on the development of children. Loss of parents or of close relatives, exposure to war activities, sudden and forcible abandonment of the home, separation from parents, injuries and harsh life conditions are some of the traumatic experiences that children often face during wartime. The long-term impact of war stress that accompanies traumatic events exhausts the defensive forces of the organism, disturbs internal homeostasis and usually results in psychosomatic reactions. A child usually cannot find any other way to express internal stress and disorder in the organism than through bodily symptoms.

Wilson's model of traumatic stress (1989) provided the theoretical basis for this research.

Goal

With the specific nature of the war in Bosnia and Herzegovina in mind, with this research we tried to examine the psychosomatic reactions of children to war traumatic experiences.

Hypotheses

- There is a statistically significant difference in exposure to traumatic events between young adolescents who were in Sarajevo during the war and those who were outside of Bosnia and Herzegovina at that time.
- There is a statistically significant difference in the level of psychosomatic reactions between young adolescents who were in Sarajevo during the war and those who were outside of Bosnia and Herzegovina at that time.
- There is a statistically significant difference in the level of psychosomatic reactions with regard to the gender of young adolescents who were in Sarajevo during the war.

Sample

The sample included young adolescents of ages 10 to 15, who were divided into two sub-samples:

- TI= subjects who spent the wartime with their parents in Sarajevo. Average age 12.24 (SD=1.13).

- KG= subjects who spent the wartime (1992-1995), as refugees abroad with their mothers, and whose fathers stayed in Bosnia and Herzegovina. Average age 12.19 (SD=1.24).

Table 1. Subject sample

	TI (stayed in Sarajevo)	KG (returned from abroad)	Total
Boys	99	104	203
Girls	104	100	204
Total	203	204	407

Instruments

- For the purpose of assessing the level of exposure of subjects to different traumatic experiences during the war, the War Trauma Questionnaire (Zvizdić, 1997) was used.
- A questionnaire for testing the psychosomatic reactions of children (Keresteš, Kuterovac, Vizek-Vidović, 1994) enabled the collection of data on physiological changes or difficulties caused by stress and traumatic experiences.

Procedure

This work is part of a broader research project which S. Zvizdić MSc. carried out in collaboration with the Munich-BiH Psychology Program. The research was carried out in two phases in 1997/1998 in 14 elementary schools within Sarajevo Canton. After the preliminary research, which was aimed at checking the suitability of the instruments for the targeted population, and at the subsequent modification and adjustment of the questionnaire, the main research was conducted on the targeted sample. The instruments were applied in accordance with the group work method. Subjects took part in this research voluntarily and with the consent of their mothers and school authorities.

Results and discussion

Data on the war traumatic experiences of younger adolescents

A t-test was applied to examine the difference between the sub-samples of subjects with regard to exposure to war traumatic events. From Table 2, we can see that the average total number of war traumatic events of subjects who spent the wartime in Sarajevo (M=9.20) is significantly higher in comparison to the values of the comparison sample subjects (M=7.48). Indeed, younger adolescents who spent the war in Sarajevo were exposed to the impact of a significantly higher number of war traumatic events. Bearing in mind that the subjects of the comparison sample left B&H

(Bosnia and Herzegovina) with their mothers in order to a find safer place abroad, unlike the subjects of the main sample who spent the war in Sarajevo and were exposed to a number of repeated stressful and traumatic experiences, the differences found were to be expected. Of course, it should not be forgotten that before they became refugees, a certain number of subjects of the comparison sample resided in areas which were directly exposed to war destruction, which means that they witnessed one or more traumatic experiences, which is reflected in the results.

Table 2. Level of exposure to traumatic events by sample (means, standard deviations and t-test on the War Trauma Questionnaire).

Sample	M	SD	t	p
Main sample TI (stayed in Sarajevo) (N=203)	9.20	3.89		
			4.79	.000
Comparison sample KG (returned from abroad) (N=204)	7.48	3.35		

Data on the psychosomatic reactions of younger adolescents

Table 3: psychosomatic reactions by sample (means, standard deviations and t-test on the questionnaire of psychosomatic reactions).

Sample	M	SD	t	p
Main sample TI (stayed in Sarajevo) (N=203)	4.58	3.36		
			2.40	.017
Comparison sample KG (returned from abroad) (N=204)	3.83	2.87		

The t-test served to check whether there was a statistically significant difference in the level of psychosomatic reactions between the subjects of the main and comparison samples. The results presented in table 3 show that the average value of psychosomatic reactions of subjects who spent the war in Sarajevo (M=4.58) is significantly higher than the score of the subjects of the comparison sample (M=3.83). In other words, the psychosomatic reaction of subjects who spent the war in Sarajevo and who were exposed to manifold war traumas is significantly higher than the reactions of subjects from the comparison sample. Experiences of clinical experts and several research studies indicate the negative consequences of intensive stress. The reduced possibility of emotional reaction ventilation, i.e. emotional avoidance in children exposed to different kinds of war stress, might cause direct

provocation of psychosomatic symptoms. It is worth mentioning that children are more at risk than adults due to their generally reduced ability to cope with problems and due to significant developmental changes.

Data on the level of psychosomatic reactions with regard to gender of the main sample subjects is presented in Table 4.

Table 4: psychosomatic reactions by gender (means, standard deviations and t-test on the questionnaire of psychosomatic reactions). Sample of subjects who spent the war in Sarajevo only (N=203).

Main sample	M	SD	t	p
Boys	3.31	2.95		
			-5.56	.000
Girls	5.77	3.31		

The t-test served to determine whether there was a statistically significant difference in the level of psychosomatic reactions between boys and girls. Table 4 shows that girls appeared to have significantly higher average values (M=5.77) in the questionnaire of psychosomatic reactions than boys (M=3.31).

Conclusions

On the basis of this research one can conclude the following.

Young adolescents who spent the war in Sarajevo suffered a significantly greater number of more stressful and traumatic events. The level of psychosomatic reactions of subjects exposed to a number of war-related traumatic events is significantly higher in comparison with the comparison sample subjects.

The higher level of psychosomatic reactions in girls as opposed to boys is probably the result of greater “frankness” in adolescent girls in terms of disclosing personal problems.

It is worth noting that this work has practical as well as theoretical significance. The results presented here enable us to identify which children need assistance, enable a better understanding of the nature of their problems, and will help in the planning of adequate programs to help adolescents adjust to the post-war situation.

The effect of war-related trauma on the behaviour of adolescents

Sanela Karačić* & Sibela Zvizdić

*Institute for Special Education and Care of Children ("Mjedenica"), Sarajevo, Bosnia and Herzegovina

This paper is related to the previous one. It analyses the same sample.

Theoretical background

Wilson's model of traumatic stress (1989) was used as the theoretical model for this research. This model presumes that personal characteristics have an impact on ways of assessing and processing traumatic events, and the way in which certain traumatic events change the personality in a pathological and non-pathological sense.

Wilson's global model of traumatic stress includes the traumatic event as an input variable, and the outcome variable is posttraumatic adjustment.

Goal

This research aimed to examine the impact of war-related traumas on the behaviour of adolescents.

Hypotheses

- There is a statistically significant difference in terms of exposure to war-related traumas between the group of young adolescents who were in Sarajevo during the war and young adolescents who were outside Bosnia and Herzegovina at that time.
- There is a statistically significant difference as to the degree of behavioural disorder between these two groups of subjects.
- There is a statistically significant difference in the degree of behavioural disorder with regard to the gender of young adolescents who were outside Bosnia and Herzegovina during the war.

Subjects

A sample of school students (N=407), aged 10 to 15 (young adolescents) was divided into two sub-samples:

- Subjects who were exposed to a war environment (N=203, 99 boys and 104 girls), average age 12.24 (SD=1.13).
- Subjects who spent the war abroad with their mothers as refugees, while their fathers stayed in Bosnia and Herzegovina (N=204, 104 boys and 100 girls), average age 12.19 (SD=1.24).

The students' teachers (102 of them) who provided us with data on behavioural disorders.

Instruments

In this research two instruments were used:

- A questionnaire of war-related traumatic experiences (Zvizdić, 1997).
- Scale of disorders in children's behaviour – for teachers (Barath, Franc, Vizek-Vidović, Kuterovac, 1994).

Procedure

The research was conducted in 1997/1998 in 14 elementary schools within Canton Sarajevo. Subjects participated in this research voluntarily and with the consent of their mothers and the school authorities.

This research was conducted in two stages. Firstly, data was collected from the pupils, and subsequently from their pastoral teachers.

Group administration of the instruments was used. The purpose and procedure was explained to the subjects, with individual explanations where necessary.

Results and discussion

War-related traumatic experiences of younger adolescents

See the results in the previous contribution

Data on trauma in younger adolescents' behaviour

Table 1. Means, standard deviations and t-test on the scale of behavior disorders in children between the main and comparison sample

Sample	M	SD	t	p
Main (N=203)	13.36	8.38		
			2.17	.031
Comparison (N=204)	11.28	10.85		

From Table 1, we can see that the average value on the scale of behaviour disorder in younger adolescents who spent the war in Sarajevo (M=13.36) is significantly higher than that of subjects from the comparison sample (M=11.28). Indeed, young adolescents who spent the war in Sarajevo were exposed to a significantly higher number of war-related traumatic events, and indicated a higher level of behaviour disorder.

By correlation analysis it was determined that there is a statistically significant connection (r = .16, p= .03) between the number of traumatic events which the young adolescents who spent the war in Sarajevo were exposed to, and the level of their behaviour disorder. It was also established that there is no significant correlation present (r= .06, p= .41) in the comparison sample.

Data on behaviour disorder with regard to gender

Table 3. Means, standard deviations and t – test on scale of the behavior disorder in children between male and female subjects

Sample	M	SD	t	p
Boys (N=104)	12.71	8.82	2.53	.01
Girls (N=100)	9.79	7.67		

Applying the T-test, we examined whether there were differences in degree of behavioural disorder with regard to the gender of the young adolescents who spent the war outside Bosnia and Herzegovina. Results from table 3 showed that average value of results on the behavioural disorder scale are significantly higher in male (M=12.71) as opposed to female subjects (M=9.79).

Different socio-cultural approaches in bringing up boys and girls could affect the differences obtained according to gender. It is assumed that many stereotypes in the behaviour of children of different sexes are in fact the result of different parental treatment provided to boys and girls.

Conclusions

The results of this research show that there is a statistically significant difference in the level of exposure to war-related stress and traumatic events between groups of young adolescents who spent the war in Sarajevo and those who were outside Bosnia and Herzegovina at that time.

It was also determined that young adolescents who spent the war in Sarajevo show a higher level of behavioural disorder than young adolescents from the comparison sample. Exposure of younger adolescents to war stress and traumatic events had a very negative effect on their behaviour.

The correlations show that there is a significant link between the number of war-related traumatic events of adolescents who spent the war in Sarajevo and the level of their behavioural disorders was established. In other words, the more the young adolescents were exposed to war-related traumatic events, the higher the level of

their behavioural disorder. As for the comparison sample, no significant correlation was determined.

It was determined that boys have higher levels of behavioural disorder than girls.

Educational development and psychosocial adjustment

David Galloway*, Lynn Cohen & Esperanza Vives

* School of Education, University of Durham, U.K.

This paper is based on work carried out for the Professional Development Policy Team, a UNICEF education project based in Sarajevo.

Introduction

This paper is based on a UNICEF Sarajevo project on continuing professional development (c.p.d.) of teachers in B&H (Bosnia and Herzegovina). It argues that: (a) the contribution of schools to children's psychosocial development lies principally in the quality of teaching and in the school as a psychosocial community; (b) in projects to promote psychosocial adjustment, the immediate consequences of war may mask the need for c.p.d. arising from political and economic change.

Theoretical background: schools and psychosocial development

Schools with a similar pupil intake may exert a differential effect on children's behaviour in school. Rutter et al (1979) found that:

> *"The secondary schools with the worst behaviour in the classroom and on the playground were not necessarily those with the "worst" intakes of difficult pupils at the age of ten years" (p 74).*

Later, a broadly similar picture was obtained in primary schools and in studies of severely disruptive behaviour (see Galloway, 1996).

A conclusion in Rutter's (1978) review of family, home, neighbourhood and school influences on conduct disorders remains valid: "single, chronic stressors are surprisingly unimportant if the stressors really are isolated". The implication is that stability and a sense of achievement at school may help to inoculate children against the effects of stress outside the school. Conversely, stress at school may interact with tensions outside the school, thereby increasing their impact.

The variables mediating the school's effect are probably not school guidance and counselling services, at least if they operate at an individual treatment level. School effectiveness and school improvement research suggests that the most important variables are the quality of interaction between teachers and students, and the nebulous but important concept of school climate.

Summary of survey evidence

The present project enabled educators representing major professional stakeholders in B&H to develop proposals for a c.p.d. policy. There was recognition of tensions arising from the war, from the education system's organisation, and from macro-

economic changes. Lynn Cohen conducted surveys of members' experience of c.p.d. since the war, and of their perceptions of their own c.p.d. needs.

Table 1 indicates the availability of a large number of seminars, most provided by aid agencies, but with little evidence of a co-ordinated program. The picture from schools was of considerable uncertainty on their priorities for c.p.d. Few seminars focussed on curriculum development, teaching methods or school-wide approaches to guidance. The extent of consultation between aid agencies, and between aid agencies and Bosnian educators, is unclear. The apparently uncoordinated approach raises questions about its long-term impact.

Educators' Perceptions of Own Need for C.P.D.

Written accounts indicated widespread reservations about the present arrangements. A recurring theme from teachers was lack of involvement in their own professional development. They also expressed reservations about the role of Pedagogical Institutes (PIs). Members of Ministries and Pedagogical Academies (PAs) recognised the dangers of detachment from international trends in education.

Discussion

Evidence in other countries suggests that schools are differentially effective in their contribution to children's psychosocial adjustment. This section summarises possible c.p.d. implications for the main stakeholders.

Schools

Improving teaching quality requires active commitment from teachers. Such commitment is unlikely if they have little opportunity to identify their own c.p.d. needs. This does not imply that schools should have exclusive responsibility, but rather that other stakeholders should work in partnership with schools in planning c.p.d.

Pedagogical Institutes

In theory, PIs remain the lead provider of c.p.d. However, they are seldom seen as partners with schools, and this can generate friction with teachers who have front-line responsibility for children's education. In the interests of consistency across the 10 cantons, there may be a case for reviewing the role of PIs and the services they provide.

Universities and Teacher Education

Higher Education Institutions (HEIs) contribute to c.p.d. but there appear to be 4 main problems: (i) provision across cantons is uneven; (ii) there is no tradition of strong partnerships between HEIs and schools; (iii) there is no program to support newly qualified teachers; (iv) nor is there any recognised training for Directors or Deputy Directors. This restricts the influence of Universities and Pedagogical Academies on c.p.d. However, HEI professors wanted greater involvement.

Table 1 Seminars Attended by Sample of Educators in B&H

(a) Respondents (number)	(b) No of seminars attended	(c) % offered by international agencies	(d) No of suggestions for improvement of educators' professional development	(e) Max number of respondees per suggestion	Topics requested in (e)
Federal Ministry (8)	22	100	14	2	Organisation and school life/teaching strategies.
Cantonal Ministry Sarajevo (10)	13	38	14	3	Legislative changes. Exchange of experience with other countries.
Cantonal Ministry Tuzla (7)	9	33	-	-	
Faculty of Philosophy Sarajevo (7)	40	80	4	1	Different topics stated.
Faculty of Mathematics Sarajevo (11)	8	87	7	9	Manager for each science in the faculty.
Pedagogical Academy Sarajevo (9)	29	-	-	-	
Pedagogical Institute Sarajevo (10)	31	77	18	4	Not stated.
Pedagogical Institute Tuzla (10)	46	74	19	10	Regular professional development in own field and wider.
Secondary School Teachers (13)	13	54	18	4	Continuous development.
Primary School Teachers (97)	21	81	27	3	Children with special needs.
Pre-School Teachers Sarajevo (10)	10	80	-	-	

- missing or incomplete data

Cantonal Ministries of Education

Cantonal Ministries need a service which can inspect schools and monitor educational attainments. At present they are able to offer little funding for c.p.d. This encourages schools to seek c.p.d. from donor agencies rather than utilise local expertise.

Federation Ministry of Education

The Federation Ministry has no legal function in respect of Cantonal Ministries. Nevertheless, a clear statement on the importance of c.p.d. could be influential. Recommendations on funding and time allocations could also be useful.

Conclusions

The dominant influence on children's psychosocial development is clearly the family. Just as clearly, the consequences of war can have a devastating impact on the most resilient children. Yet that should not obscure the role of schools. They can be protective, but they can also constitute an additional source of stress. The social climate in a school can encourage teachers to undertake c.p.d. or inhibit them. However, a "learning culture" among teachers will not appear spontaneously. It requires recognition that schools may only make an effective contribution to pupils' psychosocial adjustment if teachers are given greater responsibility for their own c.p.d. This could usefully focus on: (i) the curriculum and teaching methods; (ii) school climate; (iii) assessment and guidance systems which monitor and assist children's educational progress.

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Psychosocial functioning of Bosnian refugee adolescents in Slovenia

Vera Slodnjak

Counselling centre for children, adolescents and parents – WHO collaborating centre, Slovenia

Introduction

In 1992, around 70,000 refugees arrived in Slovenia from Bosnia and Herzegovina, half of whom were children. The Slovenian Foundation, a non-governmental organisation which had a centre for psychosocial assistance to refugees, implemented different psychosocial programs as a UNHCR partner organisation. Those activities were attempts to relieve some of the consequences of war experiences and difficult life circumstances as refugees, as well as to increase understanding for children's difficulties and bring as much "normality" as possible into their life. From 1993 onwards, special activities were organised for adolescents who had not been able to attend secondary schools after they had completed elementary schools, and who were therefore particularly disadvantaged in the psychosocial sense. The aim of these activities was to provide additional education and psychosocial assistance to adolescents affected in the gravest psychological way. For that purpose, it was necessary to identify the general characteristics of the adolescent population and the extent to which they had been affected by the war.

Hypotheses

- The experience of stress depends on the nature and quantity of traumatic experiences.
- Additional difficult circumstances (life as refugees) increase the probability of psychosocial disorders.
- Children reporting greater distress and children living under difficult circumstances have a poorer school record.

Sample

The sample consisted of 265 elementary school students aged from 14 to 15 years from eight different grades, who were all refugees from Bosnia and Herzegovina, (representing 64% of all refugees of that age in 1994); 195 eighth grade Slovenian school children from the from three elementary schools living in urban, industrial and rural environments; 31 fifth grade Slovenian elementary school students who experienced a serious traffic accident involving a school bus in 1999. In all three groups, half of the sample were boys and the other half girls.

Main instruments used

- War Trauma Questionnaire (URT: Stuvland, Kuterovac & Franc, 1992);

- Impact of Event Scale – IES (Horowitz et al., 1987, modified by Dyregrov, Kuterovac & Barath, 1993);
- Children's Depression Inventory - CDI (Children's Depression Inventory, Kovacs,1985, adapted by Živčić, 1992);
- Pupils' Questionnaire, Counselling Centre, 1981.

Procedure

The present research was part of a larger project of psychosocial assistance for all eighth graders – refugees from Bosnia and Herzegovina in Slovenia – in the school year 1993/1994; 56 students included in the project were re-assessed in 1997. Specially trained members of the mobile team for psychosocial assistance to refugees first conducted individual interviews applying the URT with children and families. In 1999, the author conducted interviews with 31 child participants in the accident and their parents, as part of the intervention in the school bus accident. The children in all sample groups filled out IES and CDI during a pastoral class. Their teachers filled out questionnaires about the students. The research was conducted with the written permission of parents and school institutions. The cooperation of the children was voluntary; three refugee children and three parents of children who were involved in the school-bus accident decided not to participate.

Results

Socio-demographic characteristics

The sample of refugee children is not essentially different from the rest of the refugee population in Slovenia according to basic demographic characteristics. But there are important differences between the refugee children and children from Slovenia (Tomori et al., 1998; Slovenian committee for UNICEF, 1995). In the refugee families, we already find several known risk factors in the pre-war circumstances of the children: a larger number of children in the family, a lower degree of parent education, especially of the mothers, poorer economic circumstances. In terms of family structure, the refugee children appear to have the advantage: only 10% of them lived in incomplete families before the war, while in the Slovenian population, there are 20% of such children. In reality, only 40% of refugee children lived constantly with both parents before the war. More than half the time, the fathers worked abroad, mostly in Slovenia. The war caused great changes in the composition of refugee families. Children who lived with both parents before the war came to Slovenia only with their mothers. In Slovenia, the fathers joined the children who mostly lived with their mothers before the war. 12% of the children in the refugee sample lived in Slovenia without their parents. 7% of the children lost their fathers in the war, 1% lost their mothers. The housing conditions of a large number of refugee children are rather modest. 39% of them lived in refugee centres, the majority of others lived in rather limited surroundings, with relatives, or in other temporary accommodation.

Exposure to traumatic experiences and posttraumatic stress reactions

Refugees: four fifths of the eighth grader refugees directly participated in war events and nine tenths of them had at least one close relation who did so. 75 % of the children experienced shooting or shelling, 36% of them were witnesses to serious violence to others, 16% experienced direct threats of killing torturing or injuring. 60% of the overall sample of refugee children stated they had been in a situation where they thought they could be killed.

Slovenians: In May 1999, on a railway crossing, a train hit a bus carrying 38 children aged 10 years who were on a school excursion. 4 children died, crushed between seats, 4 were seriously injured. Other children were slightly injured. All the children had blood on them. Survivors of the accident filled out the IES and CDI 11 months after the accident.

Table 1: Refugees and Slovenians: means and standard deviations of total scores on the Impact of Event Scale (IES) and the Children's Depression Inventory (CDI)

Sample	N	IES Mean	IES SD	t-test p level	CDI Mean	CDI SD	t-test p level
1. Refugee 8th grade pupils: 1994	265	37.45	14.34		10.66	5.98	
Boys	125	32.65	14.20		9.57	4.86	
Girls	140	41.72	13.09	0.0000	11.62	6.68	0.005
2. Refugees. Second assessment: 1997	56	29.10	13.71		9.20	4.44	
Boys	23	23.97	11.63		7.56	3.29	
Girls	33	32.66	14.07	0.01	10.34	4.82	0.02
3. Slovenian children who suffered school bus accident: 2000	31	36.06	14.09		14.42	4.36	
Boys	17	31.29	12.09		14.82	4.81	
Girls	14	41.85	14.55	0.04	13.93	3.87	n.s.
4. Unselected Slovenian sample: 1997	195				12.42	7.10	
Boys	95				12.14	7.30	
Girls	100				12.69	6.93	n.s.

In the time period of 8-14 months after their traumatic experiences, 70% of the refugees and 60 % of Slovenian participants scored 30 or more on the IES. The correlation between the number of war traumatic events and the IES is not particularly high ($r = 0,24$, $p > 0,001$). In table 1, we can see that the degree of subjectively experienced stress is almost equally high in refugees burdened with multiple and long-lasting stressors and in Slovenian children who experienced only one isolated traumatic event. In our research, the type of stressor and actual life circumstances are

not shown to affect the intensity of experienced stress. In time, posttraumatic stress reactions in refugee children lessened somewhat. Girls in all three groups displayed greater suffering. Depression with Slovenian children is far higher than with refugee children. The CDI cut-off score of 17 is exceeded by 15.3 % of refugees and 22.6% of Slovenian children – participants in the accident – and by 24.1% unselected Slovenian adolescents. Our findings show that depressive feelings are not a frequent consequence of experienced stress, in fact one could hypothesise the opposite, that the experience of stress is more intensive with children who were more depressive before stress.

School record

School record is one of the most significant indicators of psychosocial functioning. The Slovenian Ministry of the School System (Urank, 1998) does not find lower school record results for refugee children compared to Slovenian children.

Table 2: Levels of school performance: frequencies and mean IES and CDI scores by sample (231 refugee children and 31 Slovenian children who suffered a school bus accident)

School performance	Number (and percentage) of children		IES Mean		CDI Mean	
	refugees	Slovenians	refugees	Slovenians	refugees	Slovenians
Poor	31 (14%)	2 (6.5%)	34.96	50.88	13.90	16.00
Average	88 (40%)	11 (35.5%)	35.92	31.15	10.03	14.91
Very good	102 (46%)	18 (58.0%)	41.23	38.06	10.73	13.94

Table 2 shows that children with a poorer school record do not report a higher number of symptoms of posttraumatic stress reaction; in fact, the opposite tendency is displayed. There is a possibility that teachers are more tolerant of traumatised children. It is possible that children who know how to express their distress received more help. Maybe the capacity to recognize and express PTSR is linked with a more successful style of coping. Contrary to this, depression symptoms are statistically significantly more frequent among children with poorer school records ($F = 3,93$ $p = 0,002$).

Conclusions

Our results confirm the hypothesis that posttraumatic stress reactions appear frequently with children exposed to different traumatic events: two thirds of the children report clear symptoms of PTSR. But, with most children, those symptoms are not linked with poorer school records or other obvious disorders of adjustment. Teachers did not notice, with those children, a high number of behavioural disorders of ex-

ternalizing type than with the normal school population. The Slovenian Ministry of the Interior (Meško, 1998) states that between 1992 and 1997, the number of criminal acts was smaller than expected considering the increase in population because of the arrival of refugees. The findings of our research do not the confirm the hypothesis of serious socially handicapping consequences of traumatic events and other uncomfortable circumstances linked to war events.

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Psychological consequences of the war and of displacement for child victims of war 1991-1995 in Croatia

Josip Janković

Centre of Studies in Social Work, University of Zagreb, Croatia

Background

Previous research into the psychosocial consequences of the war in Croatia, as well as that from World War II and the consequences of the German bombing of London and the effects on children who were displaced from London because of the bombing (Freud & Burigham, 1944), speak of the seriousness of the psychosocial consequences of war. As the level of destruction to which Croatian towns and villages were exposed is significantly higher than in London, its implications are graver: in Croatia, families – the basis of every social system – were exposed to traumatic events at all levels, and to all aspects of traumatic events, to life dangers presented by all forms of war activities, killing, torturing and humiliation of certain members or whole families, threats and displacement.

Accordingly, in the greatest number of researched groups and therapeutically treated children, there is a very high number of indicators of serious difficulties in children's functioning on a cognitive, social and particularly emotional level as well as the number of symptoms of psychological consequences of stress experiences (Živčić, 1993; Kocjan-Hercigonja, 1993; Janković, 1993, 1994, 1995). This paper gives the results of research into symptomatology – the consequences of experienced war traumas on several groups of child victims of the war in Croatia, and of research into the credibility of mothers as assessors of their children's state.

Method

Instruments

To gather the necessary information a semi-structured interview was used, together with a number of scales to identify the posttraumatic stress reaction of children and the symptoms of physic consequences.

Sample

A number of interviewees were monitored over a period of several years, making the results particularly interesting, although due to different events, the number of interviewees varied from over 100 in 1992, to 39 3 years later.

Three groups of displaced children were assessed:

- children accommodated in receiving families without their parents or other close relatives;
- children accommodated in receiving families with their mothers;
- displaced children still living with their families.

Results

Comparison between groups

Group 1

Comparing the number of symptoms of the three groups of sheltered displaced children shows that the number of children without symptoms is highest in the group of children sheltered in receiving families, without their parents or other close relatives (61.7%).The highest number of symptoms, 10, was found in one child.

Group 2

In the group of children accommodated with receiving families together with their mothers and grandmothers, the number of children without symptoms, contrary to expectations, was significantly smaller (38.3 %). The greatest number of symptoms found in one child in this group is 18.

Group 3

The most difficult situation with regard to the psychological consequences of war was recorded in the group displaced, but sheltered with their family, neighbourhood, and wider social network. That is unexpected, because the family, the social network and the wider social environment should act as a protective factor, and symptomatology should therefore be least prevalent in that group. In this case, perhaps due to the traumatisation, the social milieu is transformed from a protective factor into a risk factor. Only 29.4% of children were without symptoms, and the highest number of symptoms registered in one child is 21.

Longitudinal analysis

April 1992

Monitoring the symptomatology of these child victims of the war in Croatia, the mean number of symptoms in April 1992 was 3.25.

August 1992

In August 1992, after the children had participated in treatment groups (“authentic approach” – small creative socializing groups), the mean number of symptoms was reduced to 2.15 per child.

October 1993

In October 1993, the number of symptoms increased again, perhaps due to the decrease in sample size (only 39 interviewees, compared to over one hundred during

the first two measurement points), caused by an attempt to transfer children to a refugee camp.

May 1995

In May 1995, after almost two years and continuous work with children, the number of symptoms again decreased to 1.2 per child.

The difference in the mean number of symptoms between the first and fourth research points is statistically significant.

Other results

- The degree of concurrence between mothers' reports and their children's self-assessment of their own psychological state was also examined. The level of agreement was low, which concurs with earlier findings such as those of Victor, Halverson & Wamper (1988), Janković & Maroević (1991) and Janković & Ljubotina (1996).
- In children, the number of symptoms as consequences of the war activities of the JNA (the Yugoslavian National Army) and paramilitary groups increased with greater exposure to prolonged stress situations and with inadequate coping with traumatic events by close adult family members.
- According to their mothers' perception, the general trend for signs of psychosocial difficulties (symptoms) in displaced children had a tendency to decrease, with the exception of the third measurement point.
- According to the self-assessments of the children, one can see a declining trend in the number of stress reactions, but this does not reach statistical significance.
- The correlation between the self-assessments of the children at the three measurement points is statistically significant.
- For a great number of children, the impending return to their place of origin and/or visiting that place for a short stay was a new traumatic event.
- Taken as a whole, traumas caused by war or displacement have very negative effects on children's health. They affect the process of socialisation, although the solutions found to crisis situations and the results of the small creative social groups give some cause for optimism and justify their use in such gravely traumatised populations.
- The remarks of the helpers are rich with illustrations of the numerous problems of displaced children, for instance partial memory loss (e.g. some knowledge of school subjects), attention difficulties, difficulties in maintaining high quality communication, and problems with adapting behaviour which had been normal for the children in wartime, but which was no longer appropriate for peacetime circumstances.

Long-term consequences of war on children in Croatia

Gordana Kuterovac Jagodić

Department of Psychology, University of Zagreb, Croatia

Introduction

The literature on children and adolescents exposed to war suggests that war experiences can have deleterious effects on many areas of children's functioning and development. However, it is still unknown whether war experiences, particularly those that are not extremely traumatic, have only temporary negative consequences and might even have a positive effect of promoting resilience, or on the other hand have long-term consequences that could be life-long and make the children who survive them more vulnerable to future stress and problems. Therefore there is a need for longitudinal research that empirically documents the long-term consequences of war on children, particularly among general in comparison to clinical populations of children.

Aim

The goal of this study was twofold:

1. to examine possible changes in the intensity of children's reactions subsequent to war experiences during a 30-month period:
   - posttraumatic stress reactions,
   - symptoms of depression,
   - psychosomatic symptoms
   - and psychosocial adaptation in school and at home;
2. and to examine whether observed changes were related to a child's
   - gender,
   - age,
   - cumulative number of war experiences,
   - displacement due to the war.

Sample

Participants were elementary school children who attended elementary schools in the Croatian city of Osijek in 1994 and 1997. Out of the original sample of 450 children in 1994, 252 or 56% children were located in 1997. The longitudinal sample consisted of 51% girls and 36% internally displaced children. In comparison to the original sample the longitudinal sample was comparable according to gender, but the children were somewhat younger, and had experienced fewer war experiences; and the sample included fewer displaced children. The two samples were comparable in intensities of short-term posttraumatic stress reactions, depression and psy-

chosomatic complaints. However, the follow-up sub-sample was better adapted in school and at home, most probably because it consisted of fewer internally displaced children. At the time of the first assessment the children were 10.2 years old, while at the time of the second assessment they were 12.9 years old. The average number of war experiences of children from the sample was 8 out of 20 war experiences examined.

Instruments

The assessments were carried out in December 1994, while the war in Croatia was still going on, and in May 1997, when the war was over. The following paper and pencil self-report children's questionnaires were administered:

- The Questionnaire on Children's Stressful and Traumatic War Experiences (Kuterovac, Franc & Stuvland, 1992);
- The Questionnaire for Examination of Posttraumatic Stress Reactions in Children (Kuterovac, Franc & Vizek Vidović, 1993);
- The Questionnaire for Examination of Children's Depression (Vizek Vidović & Živčić, 1994)
- The Questionnaire for Examination of Children's Psychosocial Adaptation (Lugomer Armano & Vizek Vidović, 1994);
- The Questionnaire for Examination of Somatic Symptoms in Children (Keresteš, Kuterovac & Vizek Vidović, 1994);
- The Questionnaire for Examination of Psychosocial Adaptation (Lugomer-Armano & Vizek Vidović, 1994).

Analysis

In order to explore the changes in the level of different kinds of symptomatology over time and whether those changes depended on children's age, gender, intensity of traumatisation and displacement status, a 2 x 2 x 2 x 2 repeated measures multivariate analysis of variance was performed. For the purpose of this MANOVA, the children were grouped in 2 groups by age: younger children who were 3rd and 4th grade pupils in 1994 (N=138), and older children who were 5th and 6th grade pupils at that time (N=114). There were two groups according to displacement status: 161 non-displaced and 93 internally displaced children. The children were also dichotomized according to the total number of their war experiences: those who had M = 5.7 experiences on average and those who had M = 9.2 experiences on average.

Results

The obtained results indicated that the overall post-war adaptation of children changed during the 30 months. Their posttraumatic stress reactions, somatic complaints and depression significantly decreased over the 30 month period. However, the psychosocial adaptation of children in school and at home significantly worsened over time. The most prominent changes occurred in the children's posttraumatic stress reactions, followed by a decrease in the symptoms of depression and psy-

chosomatic complains. The changes were the least marked in psychosocial adaptation.

The MANOVA indicates that the changes in children's post-war adjustment depended on all the four factors that were examined. Two indicators, PTSR and depression, are explained by a significant multiple interaction of time and age. PTSR reactions of both younger and older children declined over time. However, the decrease of reactions was slower among younger children suggesting greater vulnerability of children who were traumatized by the war during preschool age than those who were of early school-age.

However, the results were the opposite for the symptoms of depression. During the war, older children were significantly more depressive than younger ones. After 30 months a significant decrease was observed in both age groups, but this decrease was more pronounced in the group of younger children. This data would suggest that children who were traumatized by the war at an older age, i.e. when they were in early school-age, are at higher risk for long-term depressive symptomatology after the war.

Multivariate interactions of gender and time, and displacement and time, as well as four-way interaction of gender, age, war experiences, and time explained changes in the children's psychosocial adaptation in school and at home. During the 30 month period the psychosocial adaptation of the displaced children did not change, while the adaptation of the non-displaced children from Osijek significantly deteriorated. Despite that, after the war, displaced children still had more problems in school and in relationships with peers and adults than non-displaced children.

In addition, in order to examine whether the children's reactions returned to a non-pathological level, the children from the sample were compared to a sample of 198 children from the Croatian city of Pula. Pula is a town from a region of Croatia that was among the least affected by the war. The sample from Pula was equivalent in age and gender, but those children experienced only two war experiences on average. The comparison indicated that two years after the end of the main war activities the children from Osijek still had more psychosomatic symptoms, were more depressive and had more problems in psychosocial adaptation than the children from Pula.

Conclusion

The study indicates that time itself is not the great healer and that the long-term effects of war depend on the complex interaction of various demographic factors and factors of a child's war experiences. Moreover, it indicates that certain factors cannot be simply considered as risk or vulnerability *factors*, but rather, as Rutter named them, risk or vulnerability *mechanisms* whose effects depend on a constellation of other factors and on the type of pathological reaction in question.

Psychological effects of war trauma in children

Vesna Petrović

Department of Psychology, University of Novi Sad, Serbia and Montenegro

This project was carried out in collaboration with the UNICEF program, "Children in Crisis", and was published as the doctoral thesis of Ms. Vesna Petrović (1998): Psychological effects of war trauma in children, University of Belgrade Faculty of Philosophy, Belgrade. This contribution is related to the contribution which begins on page 274.

Theoretical background

Theoretical developmental model of traumatic stress in children.

The research consisted of two parts:

- screening – identification of high-risk children
- effects of trauma intervention on the children identified.

The conceptual framework for the present work is posttraumatic stress reactions in children exposed to war experiences. The theoretical basis of this research involves concepts of trauma and traumatisation, children‘s response to trauma, risk factors for damage in personality development and trauma intervention for children and adolescents.

Based on theoretical considerations, four groups of variables were examined: exposure to trauma, extent of traumatisation, personality, and healing effects of trauma intervention.

Goal

To answer the question "What consequences do war traumatic experiences have for the personality and traumatisation in early adolescents?"

Hypotheses

- Psychological consequences of war trauma in children will appear not only in the degree of trauma, but also in certain personality characteristics;
- After a short psychological intervention for trauma, improvements will be displayed in terms of degree of traumatisation and measured characteristics of personality of traumatised children.

Sample

1,934 children aged from 11.5 to 14.5 years were involved in the screening. There were 100 children in the experimental group of children who had experienced war trauma, 399 children who had not experienced trauma in the first control group, and 54 children who had experienced peacetime trauma in the second control group.

The sample of children for trauma intervention consisted of 130 traumatised children. A third control group of 30 children was formed within this group.

Main instruments used

Group application

- Preliminary Trauma Questionnaire, PTQ (Wolf, 1994);
- Impact of Event Scale, IES (Horowitz et al., 1979);
- Cybernetic battery of cognitive tests for children, KON/d (Momirović et al., 1989);
- Self-concept Scale, SELF (Hrnjica & Đurić, 1990);
- Locus of Control Scale, LOCUS (Nowicki & Strickland, 1973).

Individual application

- Children's War Trauma Questionnaire, CWTQ (Raundalen, Dyregrov & Stuvland, 1992);
- Children's PTS Reaction Index, CPTSRI (Frederick, 1985. & Pynoos et al., 1987);
- Scale of satisfaction with treatment, EVL, D and T (Davis, 1991).

Other details

The psychological intervention for children's trauma applied here involved a package of 5 sessions. The intervention was a combination of individual and group approaches (Petrović, Išpanović-Radojković, 1994). The research was conducted in 1994.

Methods

25 school psychologists were trained for screening and interventions, and then they applied the skills and knowledge which they had acquired in their work with children in schools. In this respect we can conclude that there are two important elements in the work: screening and interventions.

Results

Exposure type is directly linked to degree of traumatisation. Although children experienced multiple trauma, it was primarily the experience of violence and loss that led to traumatic reactions. This type of exposure primarily leads to emotional disorders and the phenomenon of re-experiencing. On the other hand, being in hiding, combined with deprivation, leads to disorders in cognition with intrusive characteristics. Therefore, exposure type is directly linked to degree of traumatisation and subtype of traumatisation.

Traumatisation is a mediator between the type of trauma and changes in self-perception and personality, because there is no direct link between exposure type and self-perception and personality.

There are clear links between the degree of traumatisation and changes in self-perception and personality: the greater the traumatisation, the poorer the experience of one's own adequacy and happiness and satisfaction, resulting in a moderate shift towards external locus of control.

The greater the traumatisation, the greater the loss of control, with significant changes of personality - psychoticism, lack of integration, depression and introversion. This represents a serious risk factor for disorders of personality development. On the specific features of psychoticism and lack of integration, if we analyze the contents of the items in the KON/d battery in terms of psychopathology, we can state the following: in items for measuring psychoticism there are paranoid/schizoid, psychotic, depressive tendencies and clear disassociation. On non–integration, elements of clear disassociation, poor impulse control, anxiety and conversion could be identified.

A more positive aspect, and one which should certainly be mentioned for the sake of completeness, is that alongside the general and average direction of results, a sometimes considerable number of children exposed to traumatic events has results at the level of children not so exposed. This reminds us of the need not always and exclusively to seek pathological consequences of traumatisation, but also to look for protective factors leading to positive outcomes.

The trauma intervention which was applied decreased the level of traumatisation in children from medium to mild, or from the threshold for serious to medium traumatisation. This means that children remained traumatised to a certain degree, even after the intervention. Although the changes are systematic and happen with all subjects, the size of change varies greatly from one child to another, independent of the initial degree of traumatisation.

Conclusion

It is recommended that trauma can only be understood in the context of type of exposure. Whenever possible, it is useful to specify the type of war trauma, the size and degree of traumatic exposure, how many traumas were experienced and for how long, in order to determine possible types of traumatisation state and damage risks in personality development, that is, specific protective factors in development.

Psychological reactions of adolescents to war-related stress

Nataša Ceribašić-Ljubomirović

Institute for Mental Health, Belgrade, Serbia and Montenegro

Introduction – Theoretical background

Adolescence can be a very difficult time of life.

Exile is a stressful condition caused by the following factors:

- Threat to the well-being of the family
- Sudden change of environment
- Traumatic events experienced during exile
- Perception of an uncertain future

Teer (1991) divided traumatic events into two groups:

- Traumatic events that occur once;
- Traumatic events that occur repeatedly.

Hypotheses

In this piece of research, we tried to establish:

- how traumatic events affect adjustment in adolescence;
- whether there are gender differences in the reaction to traumatic events;
- the connection between traumatic events experienced in childhood and the reporting of recent traumatic events and current reactions in adolescents.

Sample:

The sample consisted of 174 adolescent refugees between the ages of 15 and 18, both male and female. The subjects were divided into two groups.

- Mono trauma (exile)
- Multiple trauma (displacement plus: exposure to war atrocities; poverty; witnessing the death or wounding of family members; participation in war; direct experience of violence; wounding in war).

Main instruments used:

Youth Self-Report (YSR: Achenbach T.M., & Edelbrock, C. S.)

Child war Trauma Questionnaire (CWTQ: Wolf, B., 1992)

Child Abuse and Trauma Scale (CAT: Newberger, & De Voos)

Results and conclusions

1. War-related trauma causes manifold mental consequences and therefore deserves our full attention. We should try to provide assistance to adolescents affected by war. Frequent psychological consequences in adolescents are: shyness, anxiety and depression, somatic problems, attention problems, social problems, aggressive and violent behaviour.
2. There is a difference in problems with regard to gender. It appeared that girls have a higher number of scores on the problem scale than boys, with the exception of the scale for violent behaviour. This means that females are more vulnerable and show more symptoms than males.
3. We can conclude that the results obtained show the significance of traumatic events experienced in childhood. Previous negative experience may increase the level of reporting recent traumatic events and the level of reported problems in adaptation.

Risk factors for the development of emotional problems in children during war-related separation from their parents

Ksenija Kondić, Vesna Dejanović, Milan Marković, Goran Opačić & Lazar Tenjović

Department of Psychology, University of Belgrade, Serbia and Montenegro

Goal

Apart from the primary goal, to reunite children with their parents, the researchers wanted to know which risk factors induce posttraumatic stress symptoms.

Sample

The sample consisted of 3,373 children, which is almost the entire population of child refugees without parents living in the Socialist Republic of Yugoslavia from 1994 to 1997. The age of these children, 3-18, means that, assuming normal development, they were able to understand not only the act of separation itself from the main attachment figure but also to experience the difficulty of separation in war conditions.

Results

The overall conclusion from this research is that there are *two groups of risk factors*:

- *characteristics of war trauma and the war environment*, among which the most important risk factors are: horrific experiences of the child, the fate of the parents and the present accommodation of child; and
- *characteristics of the child and his/her family*, among which the most important risk factors are: prior psychological difficulties, general health conditions, and previous family situation (complete/incomplete family).

The results show that symptoms of emotional problems in children without parents are four times more frequent than before the war. However, there is one very promising piece of data; according to information from 1997, 3,000 children from this sample were reunited with their parents or close family members, while 337 children were placed in foster homes or collective centres.

Time heals all sorrows? PTSD and its consequences four years after experienced trauma

Marija Zotović & Nila Kapor Stanulović

Department of Psychology, University of Novi Sad, Serbia and Montenegro

Theoretical background

The theoretical background of this research was Lazarus' transactional model of stress, which is considered one of the most important models for explaining individual differences in reaction to stress (Lazarus & Folkman, 1984). According to the transactional model, individual differences in reaction to stress are the result of a natural link between stress and mental health, which is complex, and subject to the influence of several factors. Factors responsible for differing susceptibility to stress can be divided into three groups: personality factors, factors related to environment and behavioural factors, i.e. strategies for coping with stress.

Aim

The aim of the research was to answer two questions:

- To what extent are the symptoms of PTSD and depression, and the most general consequences of PTSD, present in children four to five years after suffered trauma?;
- On which variables are children with a significant degree of PTSD different from those children for whom PTSD symptoms were not registered at the time of examination?

Methods

Sample

In this research a convenience sample of children originating from Bosnia and Herzegovina was used. The sample consists of 76 children, aged 10 to 15. All the children had suffered traumatic events, such as injury, witnessing killings or their loved ones being wounded, witnessing or suffering violence, observing massacred bodies, etc. four or five years before the data was gathered. (None of the children had received professional help.) For the purpose of research, the subjects were divided into two groups: a first group with significant symptoms of PTSD (N = 42), and a second without symptoms (N = 34).

Instruments

The following instruments were used:

- Preliminary trauma questionnaire (Wolf, 1996) for collecting data on traumatic experiences suffered, subjective assessment, social support, and demographic variables;
- Impact of Event Scale (IES; Horowitz et al., 1979), for testing the frequency of PTSD symptoms;
- Birleson's scale of depression for children (BDI; Birleson, 1981);
- HANES Scale of neuroticism and extroversion for children and youth (Bele-Potočnik et al., 1977);
- Scale of self concept for children (Hrnjica and Logar-Đurić, 1990);
- Scale of locus of control for children (Nowicki & Strickland, 1973);
- Scale of risk (Grossman et al., 1986), for assessing additional stressors (aside from war traumas);
- Task of putting together a story from six pieces (Lahad, 1993), for assessing strategies of coping with stress.

Data analysis

For the purpose of data analysis, T-tests for independent samples and chi-square tests were used.

Results

Prevalence of PTSD symptoms and depression

55% of all subjects had significant symptoms of PTSD (categories "severe PTSD" and "moderate PTSD") according to the norms for this scale established in the local population; and 20% of all subjects had symptoms of depression disorder (according to cut-off scores proposed by the author of the scale).

Comparison of the groups of subjects with and without PTSD symptoms

The groups were compared on variables from the category of internal factors such as individual differences in susceptibility to stress, i.e. variables from the field of personality. Table 1 shows the results of tests of the differences between groups tested on Hanes's scale of neuroticism and extroversion, the scale of self-concept and the scale of locus of control (only those variables are shown for which the difference between the groups was statistically significant).

Statistically, the groups differ significantly from each other on: neuroticism, extroversion, and assessment of own popularity, satisfaction with self and aspects of self-concept ,as well as on positive self-concept (in general) and on locus of control.

Groups were compared on variables from the category of external factors: individual differences in susceptibility to stress; frequency of additional stressful events; and presence of social support. There were no statistically significant differences in any of the indicators of these variables.

Table 1. Comparison of the groups of subjects by variables from the field of personality (only those variables are shown for which the difference between the groups was statistically significant)

Variable	Group	N	AS	SD	t	df	p
Neuroticism	PTSD	42	19.17	7.13			
	Without symptoms	34	13.65	9.65	2.828**	74	.006
Extroversion	PTSD	42	9.62	2.52			
	Without symptoms	34	11.09	2.61	-2.450*	74	.017
Self concept	PTSD	42	48.95	8.92			
	Without symptoms	34	53.88	8.13	-2.433*	74	.018
Self: assessment of own popularity	PTSD	42	7.23	2.26			
	Without symptoms	34	8.64	2.07	-2.726**	74	.008
Self: satisfaction	PTSD	42	5.33	1.77			
	Without symptoms	34	6.27	1.07	-2.774**	74	.007
Locus of control	PTSD	42	10.20	4.10			
	Without symptoms	34	6.65	3.38	2.275*	74	.026

A comparison between groups was made on variables from the category of behaviour, i.e. ways of coping with stress. Statistically, groups were not significantly different regarding the frequency of the use of different strategies.

And finally, there were no differences in terms of variables of gender and age.

Discussion and conclusions

The research showed that 55% of the children have symptoms of current PTSD even four or five years after experienced trauma. With 20% of the children, symptoms of depression were present to a significant degree.

As for the comparison between the two groups of subjects with current PTSD and those without, differences were recorded only on variables from the category of internal factors, i.e. personality factors. Children with PTSD symptoms appear to have higher neuroticism, they are more introvert and have an external locus of control. They assess themselves to be less popular among their peers; they are dissatisfied with themselves and have a more negative self-concept in general.

There were no differences recorded between the groups on the variables from the category of external and behavioural factors.

These results are in accordance with theoretical standpoints which emphasize individual differences in reactions to stress, although they do not conclusively demonstrate the causes of the differences between the groups. However, results for this second research question could be interpreted in two ways.

- According to the first interpretation, the variables on which children with symptoms of PTSD differ from the children without PTSD symptoms show *factors of vulnerability or resilience to stress.* These factors were present before the exposure to traumatic stress and that is why the children reacted differently to stress.
- According to the second interpretation, differences among groups of children appeared because traumatic stress and PTSD can be accompanied by neurotic reactions, negative changes in personality, externalisation of the locus of control. According to this interpretation, it is consequences of PTSD which were registered.

In the opinion of the present author, there is truth in both these interpretations. It is reasonable to assume that personality variables play a certain role in terms of susceptibility to negative influences of external surroundings on one side, and protection from various disorders on the other, even in persons who are still developing. It is likely that negative affectivity, a negative opinion of one's own personality, external locus of control, and introversion determine higher susceptibility to stress. Also, it is likely that traumatic stress additionally deepens and encourages the development of such features. This interpretation is in accordance with the transactional model of stress within which the question of the order of causes and consequences is not of crucial importance, as with some other models. Results acquired from this research have practical implications. The identification of personal characteristics which can enhance resistance to stress can be of great importance in the creation of therapeutic and prevention programs. According to the results of this research, interventions aimed at decreasing the intensity of PTSD symptoms (or the risk of their emergence) should be directed to development of self-esteem, positive affectivity, openness towards other people and the world, and the belief that one is capable of changing reality.

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Research on the frequency and intensity of post-traumatic stress reaction among adolescents after the bombing in Novi Sad

Lada Marinković, Nevena Rončević, Dobrila Radovanov & Aleksandra Stojadinović

Institute for Preventive Health of Children and Young People, Novi Sad, Serbia and Montenegro

Theoretical background

The medical model of posttraumatic stress disorder (DSM III-R) and the transactional stress model (Lazarus).

Our goal was not to diagnose PTS disorders, but rather to examine the frequency and degree of PTS reactions as a temporary disorder of psychological, physiological and social functions, which could be linked to identifiable traumatic experience.

Hypotheses

- A high percentage of adolescents show symptoms of PTS reaction 5 months after the bombing.
- There is a difference in terms of degree and frequency of PTS reactions of adolescents with regard to age and gender.
- There is a difference in terms of frequency of certain psychosomatic difficulties before and after the bombing.

Sample

713 adolescents aged 10 to 18 (267 boys and 446 girls).

Main instruments used

A questionnaire examining the frequency and degree of PTS reactions was created in accordance with criteria for diagnosing posttraumatic stress disorder (according to DSM III-R).

The subjects' answers were classified into low, medium and strong levels of PTS reactions.

The questionnaire also examined the appearance of psychosomatic reactions before and after the bombing. The authors of the questionnaire are the author and co-author of the research.

Other details

This research is part of a broader research project aimed at determining the state of health of adolescents and the risk behaviour of this population.

This research was carried out from October-December 1999 (5 months after the bombing) within the territory of Novi Sad (Vojvodina).

Results

PTS reactions

79.5% (567 adolescents) showed at least one symptom of PTS reactions.

- 71.6% showed a low PTS reaction
- 27% showed a medium PTS reaction
- 1.4% showed a strong PTS reaction

PTS reactions by gender

the total number of boys showing symptoms of PTS reactions,

- 88.8% of them have low-level PTS reactions,
- 11.2% of them have medium level PTS reactions,
- and none of the boys showed a strong PTS reaction.

Of the total number of girls showing symptoms of PTS reactions,

- 63.7% of them had low PTS reactions
- 34.3% of them had medium PTS reactions,
- and 2.1% of them had strong PTS reactions.

PTS reactions by age

Symptoms of low-level reactions are more frequent in children up to 15 years old, while the symptoms of medium level reactions are more frequent in children over 15 years old.

Increase in psychosomatic difficulties

Both girls and boys showed more psychosomatic difficulties after the bombing (50.2%), compared to the pre-bombing period (28.3%), a statistically significant increase.

How adolescents feel about the war – reactions of adolescents exposed to war stressors during the NATO bombing of Yugoslavia

Danica Nikić Matović

Polytechnic School, Požarevac, Serbia and Montenegro

Research hypotheses

- The exposure of adolescents to war stressors during the NATO bombing will result in physical (somatic), emotional, cognitive and behavioural reactions.
- Due to their exposure to traumatic war experiences, a number of adolescents will express PTSD symptoms.

Method

Sample

The sample consisted of 150 adolescents of both sexes (90 girls and 60 boys) from the 4th grade of high school in Požarevac.

Main instrument

Self-report questionnaire for adolescents: feelings, ideas and behaviour during the war.

Procedure

This research was conducted in the first half of September 1999 (3 months after the NATO bombing). Adolescents completed the self-report questionnaires in 45 minutes.

Results

- All adolescents, 150 (100%), expressed signs of General Adaptive Syndrome (in phases: alarm reaction with shock phase, adaptation phase and exhaustion phase) as their immediate reaction to war stressors;
- The reactions of the girls were more intense and longer-lasting than in boys;
- The level of trauma was higher for girls than for boys;
- PTSD symptoms were found in 15 girls and 10 boys.

Impact of the war on personality structure

Duško Bursać

Centre for Social Work, Apatin, Serbia and Montenegro

Theoretical background

This work was inspired by the UNICEF report on the "State of the World's Children" (1999), which states that children in the Socialist Republic of Yugoslavia in 1999 were the most imperilled children in Europe with respect to psycho-physical health. There is no doubt that the NATO bombing in 1999 contributed to this fact, as well as earlier exposure to war circumstances. The experience of being a refugee as well as exposure to war circumstances are classified as disastrous life events that derange the social structure of society and impact the personality structure of an individual (Tierney, 1989). This work explores the personality structure of refugee children and local children who were exposed to war-related stressful situations.

Hypothesis

This is a piece of exploratory research. We assumed that there were differences in the personality structure of the refugee children and local children, which appeared as a result of different lengths and intensities of war exposure.

Sample

The sample consists of 125 refugee children (60 males and 65 females) and 128 local children (65 males and 63 females) aged between 13 and 16. The children in the refugee sample had been living in Croatia from 1991 to the fall of 1995, and had been directly exposed to the war. By 1999, this sample of children was living as refugees in Apatin in Serbia on the border with Croatia. In 1999 they then experienced the NATO bombing. The sample of local children lived in Apatin the whole time. So those children were also affected by the war between 1991 and 1995, and in 1999 they also experienced the NATO bombing.

Instruments

1. BDI (Beck Depression Inventory),
2. HANES scale for assessment of neuroticism and extroversion,
3. Plučik profile of emotion index (PIE),
4. A questionnaire ("PTSD") created for this research, which provides information on experienced traumas and PTSD symptoms.

Methods

In March 2000, 125 refugee children and 128 local children in Apatin were examined using tests which measured personality structure. Group testing was carried out in the elementary school and the secondary school in Apatin. Subjects were pupils in the 7th and 8th grades of elementary school and students in the first grade of secondary school.

Results

In comparison with the local children, the refugee children showed:

- Significantly higher exposure to stress, which had an extremely damaging impact on them.
- More frequent and intensive recall of stressful situations.
- Significantly increased fear of a new war or further bombing.
- Significantly decreased ability to enjoy life.
- Tendency towards introversion.
- Acceptance of a helpless lifestyle: living from day to day, fewer plans for the future, disorganisation and low self-control.
- Tendency towards avoiding new experiences and social contacts, intensified need for safety, low social adaptability, increased suggestibility and dependence.
- Increased conflict between the need for social and cheerful behaviour and emphasised feeling of sadness and depression.
- External locus of control.
- Fear of the future.

The dominant defence mechanism was denial.

In comparison with the refugee children, the local children showed:

- A significantly stronger feeling of guilt.
- Significantly higher criticism of their own weaknesses and imperfections.
- A tendency towards extroversion.
- A far more positive self-concept.

Both samples of children showed signs of emotional instability manifested as increased neuroticism and depression.

Conclusion

Refugee children showed a significantly lower degree of social and psychological adaptation to new life events and experiences, which seems to be a direct consequence of accumulated stress that has not been adequately processed, neither cognitively nor emotionally. Refugee children showed greater expression of fear of the future. Yet, prolonged exposure to war circumstances and their consequences, primarily material poverty, may have caused very important structural changes in the

personalities of refugee and local children. The spectrum of psychopathological changes in refugee children was broader, which is presumably closely related to the higher intensity of experienced stressors. However, local children also scored highly on two personality variables, neuroticism and depression, which confirmed the statement given in the UNICEF report about the endangered psychological health of children in Yugoslavia, regardless of accommodation status. It is not very likely that the natural developmental processes of emotional maturity will result in a significant improvement in the mental health status of these children. It seems obvious that there is a need for professional psychological assistance.

How children and their parents react, emotionally and behaviourally, to stress caused by a war environment

Žarko Trebješanin

Faculty of Special Education, University of Belgrade, Serbia and Montenegro

Goal

The goal was to determine the reactions of parents and their children to stress caused by the war conditions. We emphasised general fears and emotional reactions on the one hand, and ways of coping with stress on the other. The research was carried out in May and June 1999, during the NATO aggression against Yugoslavia.

Hypotheses

- War conditions have an impact on the type and extent of fears of children and parents;
- Negative emotions characteristic of stress are present in children and parents, depending on their experiences during the bombing and other tested psychosocial variables;
- Ways of coping with stress of parents are connected to the reactions of children.

The sample included 132 children from 5 to 12 years of age and 120 parents, mostly mothers, from Belgrade and Subotica.

Main instruments

- Interview and questionnaires prepared for the purpose of this research
- Analysis of the children's drawings.

Methods

Non-experimental research.

Results

Safety

"I feel most safe when there is no war and when my mum and dad are with me." Children's replies such as one to interview questions show that the *main support for children's safety* is the presence of their parents and stable surroundings. Having an intact body is an essential factor in children's awareness of themselves, therefore potential bodily harm may disrupt a child's defences. "War is something bad because many people can get killed, including children and babies who have just been

born, and they did not expect they would die" says six-year-old Darija. The presence of an existentially endangering state such as war can induce exposure to primeval and deeply rooted fears such as fear of separation and fear of destruction. These fears are the foundation of various other fears.

Fears

In some answers a feeling of helplessness was revealed, which is representative of all later anxieties. When asked what he does when he is scared, seven-year-old Aleksandar replies: "I run away, but since I have nowhere to hide, I go to my shelter (under a blanket) and I just watch. Once, I even hid under the closet". And, when asked*: given everything you have experienced in the war, what is the most important thing you have learned about life,* eleven-year-old Stefan replied, "I learned that I can not relax too much or a bad thing might happen", while six-year-old Ognjen says "I learned to be afraid".

Children's fears are closer to the surface than those of adults, as children are less repressed. Adults are more afraid of their own fears, and their helplessness is perceived as exposure of weakness and an inferior position in relation to others. For this reason, an examination of children's fears is more suitable for learning about the root of human anxiety.

Analysis of children's answers to the questionnaire showed that the *children's fears* could be divided into two groups: *fears related to war* i.e. fear for parents, fear of being wounded, fear of being killed, destruction of the home, fear of hunger, fear that something terrible might happen; and fears not related to war i.e. fear of darkness, heights, wild animals and demons. When asked what they feared the most, children explained that, above all, they were afraid of bombs, rockets and aeroplanes; in the second place they were afraid of their homes being destroyed, and thirdly they were afraid of their family members being killed. School-age children feared bombs, aeroplanes and the destruction of their homes (40%) almost to the same extent that they feared for the lives of their family members and for their own lives (35%), while pre-school children expressed a huge difference between fears of bombs, aeroplanes and house destruction (42.5%) and fears for their own lives and the lives of their family members (only 5%). Children of pre-school age still do not have an abstract idea of death. Children of this age still believe in the omnipotence of their parents and therefore they connect all manifestations of destruction and threats to their lives, to bombs, aeroplanes and the destruction of their homes.

In the questionnaire specifically created for this research and in the interview which followed it, we examined to what extent parents are exposed to the negative feelings and physiological disorders which often accompany a state of crisis. We also examined the manner in which the parents coped with their own uncomfortable emotional states, especially with their own fears, and in what manner they coped with the fears of their children. Finally, we were interested in whether the parents had been able to positively re-interpret their experience, i.e. whether they understood the suffered crisis as a type of challenge and whether they could use the stressful experiences as an incentive for personal development. We can conclude that the war-related stress-

ful situations of approximately 1/3 – 1/4 of the sample were accompanied by *despair* because of inability to control the situation, and because of fear of the negative consequences of stress to the health of their children. Nearly half the subjects had eating disorders, and over 50% of the subjects had sleep disorders. A disturbing fact is that as many as 65% of the subjects did not believe in their own *abilities and strengths* and felt unable to cope with war-related situations on their own. Most of the subjects (72.5%) voiced fatalistic convictions, which can presumably be seen as a way of coping which is not directly focused on solving problems.

Most of the parents replied that they feared the deaths of and injury to close family members or they feared their own deaths and injuries. The next most frequent fear was the fear of a terrible future. A relatively small number of subjects were afraid of immediate dangers: destruction of the home, injury, fear of hunger and fear of death.

Coping amongst parents

- The most frequent way of coping with the fears among our subjects was through control, suggestion and thinking. This approach to coping with fears includes self-motivation, maintaining distance and the minimisation of danger.
- The next most frequent form of confronting fears is through social contacts, i.e. conversation and socializing with relatives, neighbours, friends and work colleagues.
- The next most frequent are activities (housework, reading, visiting theatres, etc.), helping to get rid of thoughts of war-related horrors and to establish self-control over everyday life.
- A similar mechanism is taking care of children. The parents saw the responsibility of taking care of children as a very important task, which helped them not to give way to negative feelings, fears and lifelessness.
- Escape through tranquilizers and oversleeping is a less frequent way of coping with problems.
- The least common way of coping with fears is through religion and belief in God.

How parents help their children to cope

We asked subjects how they *helped their children to cope with their fears.*

- The most frequent method (57.6% answers) was to live as normal a life as possible, by making sure the children played a lot of games, socialized with their peers and parents.
- The next most frequent way (23.7% answers) was attempting to cope with children's fears by decreasing danger, convincing the children that nothing bad would happen and by behaving as a role model: being brave.
- Also, parents tended to reduce their children's fears by physical touch – cuddling, embracing, taking them on the lap, and sleeping with them (15,3 %). An interesting result is that children whose parents used the strategy of minimising danger and the role model strategy appeared to experience less fear than those children whose parents primarily used physical touch and tried to live as normal a life as possible.

- It is possible that by performing regular duties, (which is a very good way of helping children) parents failed to give the child an opportunity to process his/her fears. On the other hand, it is likely that those children who had more intense fears urged parents to comfort their children by using the strategy of physical touch.

Positive consequences

A very important finding is that most of the subjects (91.2%) found something good and useful in the war. Most frequently this was an awakened sense of closeness, solidarity and cooperation. Also, people in war changed their views of life values, and some of them became, in their own words, more mature. Maturing refers to subjects' experiences such as becoming more serious and discreet, having the stamina and the courage to cope with the most difficult situations, and learning about themselves and their strengths. The experiences of those subjects who examined their own value systems during the war were very similar within the group and could generally be determined as consideration of the real values of life, health, family and social life. Values threatened by the war inspired people to recognize previously underestimated values as the most precious. Money and material wealth lost their importance in the value system of these subjects.

The reactions of the parents questioned is evidence in support of the view that every event, even negative events such as the war, can be considered an opportunity for personality development.

Discussion / Conclusion

The reactions of parents and children showed the need for psychological help and support for vulnerable individuals and groups. Immediately after the termination of the bombing, psychological support in the form of counselling and children's workshops was organised.

War through children's eyes a year after the NATO bombing

Svetlana Tišinović

Jovan J. Zmaj Primary School, Pančevo, Serbia and Montenegro

Aim

To determine characteristic children's memories and to classify them as symptomatic reactions.

Method

In March 2000, on the first day of the bombing (24. 03.) I proposed to the teacher of Serbian language in the third grade, that in addition to the two regular topics for written work ("The person I love and respect" and "Why did I get upset about it?") she offer a topic entitled: "They bombed my country, but I was helpless".

Hypothesis

The starting hypothesis was "children primarily remember their feelings".

Sample

The sample included 120 pupils from the fourth grade of the elementary school "Jovan Jovanović Zmaj" in Pančevo.

Results: classification of children's memories as symptomatic reactions

70% of the children decided to write about their helplessness during the bombing, rather than the other two topics.

Children's memories identified in their written work were classified as symptomatic reactions, given below as percentages.

- Somatic difficulties revealed as bodily symptoms (80% of the children)
- Concern for others, mostly for fathers (65% of the children)
- Desire for vengeance i.e. fantasies about intervening (62% of the children)
- Agitation caused by reactions of grief and others being upset (55% of the children)
- Early maturity and sense of new life values (44% of the children)
- Sleep disturbances (40% of the children)
- Unease and anxiety in the basement (35% of the children)
- Fear of one's own feelings (30% of the children)
- Helplessness and feeling of guilt due to passiveness (25% of the children)
- Experiencing the sound of sirens (23% of the children)
- Time disturbances (21% of the children)

- Confusion in self concept (20% of the children)
- New sense of values in family relations (18% of the children)
- Awareness of converting aggression to some other form of aggression (18% children)
- Awakening of national and patriotic feelings (17% of the children)
- Sadness and rage because of an interrupted important event (15% of the children)
- Cognition of a sense of world humanism (13% of the children)
- Experiencing war and bombing as interesting and funny (8% of the children)
- Getting used to bombing (5% of the children)

Conclusion

This work has shown that children felt the need to write about their experiences of the modern war which suddenly broke out in Yugoslavia. 70% of the children whose works were included in the sample expressed symptomatic reactions or “malignant war memories”. The most frequent war memory was fear accompanied by physical symptoms such as changed heart rhythm. After that came fear for members of family, especially fear related to fathers carrying out their work duties. These results confirm the initial hypothesis that children in traumatic situations first recall their feelings. Aside from fear, in the vast majority of children the bombing caused the feeling of helplessness, passivity and rage. They struggled against these feelings with imaginary action and dreams of revenge.

An interesting result is that a number of children recalled the bombing as an interesting, beautiful and funny event.

Children rarely recalled incomplete activities interrupted by the war.

Papers on children and adolescents: treatment

Evaluation of UNICEF-supported school psychosocial programs in B&H (Bosnia and Herzegovina) 1993-1999

Rune Stuvland* & Elvira Duraković-Belko

*Centre for Crisis Psychology, Oslo, Norway

The study was carried out as part of an internal evaluation of UNICEF Psychosocial Programs in Bosnia and Herzegovina.

Theoretical background

During and after the 1992-1995 war in Bosnia & Herzegovina, UNICEF initiated and supported a number of psychosocial programs in the school system. The main objective of the programs was to improve the standard of care for children affected by traumatic war experiences and losses. To achieve this, UNICEF:

1. supported the establishment of project teams in schools and in cities/regions throughout B&H;
2. provided training and professional support to these teams;
3. and offered material and financial support.

The efforts to assist the school system were complicated by numerous factors. During the war many schools were the direct target of shelling and shooting, and in several locations this lasted for years. This made any attempt to organize normal school activities hazardous, yet the besieged or war-affected populations did manage to keep the educational system working even under the most severe constraints. Where normal schools could not function, classes were organised in basements, in stairways, in apartments or other places considered to be relatively safe.

UNICEF started to provide support to these efforts at a very early stage, first of all by providing educational supplies. In the fall of 1992 the first psychosocial projects were initiated, and in early 1993 a school psychosocial project was established in Sarajevo. This was later to be followed by similar projects in several parts of B&H, on all sides of the frontlines.

After the war ended in 1995, the school psychosocial program continued. Even though the war was over, the country remained divided into two entities, one of which was divided into ten cantons. Thus it remained extremely complicated to establish programs that would have national coverage, since a total of 12 Ministries of Education were involved in the implementation. Yet the school psychosocial program did continue, and expanded in the period 1996-1999 to cover more parts of B&H as well as to include secondary schools alongside primary schools. Although no exact data exists regarding the total coverage of the program, it is estimated that several thousand teachers and school psychologists received training and were included in the projects from 1992 up to 2000, and that these persons again reached

tens and thousands of children. In order to learn how the school personnel perceived these projects, a survey and interview study was conducted in 1999.

Hypothesis

School personnel who participated in psychosocial projects have acquired new knowledge and skills, and have used this to help war-traumatised children.

Sample

Data were collected from 74 persons in three Cantons in Federation of B&H. Due to incomplete answers, data from three persons were not taken into consideration, and the final sample consists of 71 persons out of which 20 were men (28.2%) and 51 were women (71.8%).

Main instruments used

A questionnaire was designed for the purpose of the study (Stuvland, Durakovic-Belko & Penn, 1999). It tapped information about:

1. seminars and psychological screenings of pupils;
2. current problems;
3. problems in the future;
4. and personal situation.

Method

Students of psychology visited each of the schools, distributed questionnaires and provided instructions regarding the aim of the study. All respondents filled in the questionnaires individually and anonymously.

Results

Training seminars

All participants had attended one or more seminars about children and trauma since 1992, almost half had attended four or more seminars. All but one reported the seminars had been very successful in improving their understanding of the consequences of war on children, as well as their knowledge about how to help children. After the seminars, 93% had carried out specific individual work with children, 86% had carried out group activities for children, 84% had worked with parents and 96% had passed on their new skills and knowledge to other colleagues at school. The least successful part of the program had been supervision, more then a third had not received any supervision at all and among those who did receive supervision, one third was not satisfied with the quality of it. As many as 98% of the participants wanted to continue the projects at the date of data collection, four years after the war ended.

Psychological surveys of children

Psychological surveys of trauma exposure and reactions were carried out during and after the war to document the impact of the war, and 83% reported that surveys had taken place in their schools. Among these, all reported that the surveys had helped increase their knowledge about the impact of war on children, 96% had learned something new about the children in their schools, and everybody used the results in their work with the children. Only one person reported that children did not appreciate the survey, while 8% of the parents did not accept the survey. Some schools did not receive the results on time, 15% reported they were not satisfied with this. Everybody reported that the children had been positive about revealing their war experiences and answering the surveys.

Current problems

The participants reported a high degree of current psychological problems among the children. The most frequent problems are trauma reactions, depression, grief, hyperactivity, nervousness and irritability. Types of problem behaviour reported were smoking, alcohol use and drug abuse. Problems related to conflicts in the classrooms, between pupils and between pupils and teachers were also prominent.

Future programs

We asked the participants what problem behaviour should be given a priority in the future. Not surprisingly they asked for support to the current problems they experienced, i.e. to issues of traumas and losses. They were also eager to receive support for themselves. What they asked for is further training, supervision and educational materials in support of their work.

Personal situation

The vast majority of the participants reported a surprisingly high degree of satisfaction with their situation at work. Only 20% reported that the physical conditions in the school were poor. Their personal situation was, however, less satisfactory. 41% of the teachers had not resolved their housing situation, and 94% had financial problems. Asked about their personal war experiences, the participants reported a high level of exposure to traumatic events and losses.

We also asked the participants if the training they had attended had helped them cope with their own war experiences, and 94% answered yes to this question. Furthermore, 97% reported that their own work with traumatised children had helped them cope with their own war experiences in a positive way.

Discussion / Conclusions

The school psychosocial program had been very useful according to the school personnel. They had benefited a lot from the training activities, and after the seminars the vast majority had used their newly acquired skills to help individual children,

groups of children as well as their parents. The main constraint was the lack of supervision and support to the school personnel who participated in the project. Schools who had carried out systematic screenings or surveys of children's war experiences and their reactions reported that this had been a positive activity both for children and teachers. The results had also contributed to raising the awareness about the situation of children, and they had been useful for their direct work with the children.

Even though this study was carried out almost four years after the end of the war, the school personnel reported a high level of psychological problems among the pupils. Many were still affected by the traumatic experiences during the war, no doubt the post-war adversities contributes to this situation. School personnel asked for more training and support for their work with the children. At the same time the study showed that the school personnel, in spite of many personal problems related to housing, economic issues and personal traumatic experiences, reported a very high degree of satisfaction with their work and with their schools. It is worth to note that they themselves reported that the work with the children had been a great benefit for themselves and their efforts to cope with the impact of war on themselves.

Based on the results of this survey, we can conclude that the project activities carried out in B&H during and after the war had a strong positive impact on the personnel in the schools involved in the projects. New skills and knowledge were generated, and those who attended seminars organised by UNICEF or other agencies disseminated their new skills at their place of work. More important, they applied their knowledge and skills in their work with the war-affected children and their parents. Even four years after the end of the war there is a strong need for continued support to the psychosocial school program, and the work should receive continued support for several more years.

Psychological adjustment in war-exposed secondary school students two years after the war: results of a large-scale risk screening survey

Milena Kutlača*, Christopher M. Layne, Jenifer Wood, William S. Saltzman, Rune Stuvland, & Robert S. Pynoos

*Department of Psychology, University of Banja Luka, Bosnia and Herzegovina

Introduction

This paper will present the results of a wide-scale risk screening survey that was administered in the fall of 1997. The survey was administered as part of the UNICEF School-Based Psychosocial Program for War-Affected Adolescents, which was then being implemented in 22 secondary schools throughout B&H (Bosnia and Herzegovina). Components of the program included a classroom screening survey, standardized scoring of the results to identify students at risk for chronic and severe posttraumatic stress reactions, a pre-group interview, and a 20-session school-based trauma/grief-focused group psychotherapy. All aspects of the program are implemented by specially trained school psychologists, pedagogues, and psychopedagogues.

During the training, we asked the psychologists and pedagogues to select 2 to 3 classrooms of students at their schools that were known to contain high concentrations of students with histories of severe war-related traumatic experiences. After the surveys were used to identify high-risk students, they were sent to the University of Banja Luka, where Milena Kutlača oversaw the data entry and creation of individualized reports for each of the participating schools. The data I will present contain data from 7 secondary schools located throughout the Republika Srpska.

Theoretical background

The conceptual model guiding the construction of the survey and the intervention program as a whole is based on 6 therapeutic foci, as originally developed by Dr. Robert Pynoos at the UCLA Trauma Psychiatry Service. These include:

1. Pre-War Trauma / Family Adversities
2. Trauma Exposure
3. Post-War Trauma Reminders
4. Post-War Adversities/Family Context
5. Interplay Between Trauma and Bereavement
6. Developmental Impact

1. Pre-War Factors

The first therapeutic focus is on the impact that pre-war factors may have in determining post-war adjustment. This influence may take a variety of forms, including the following.

- May make a direct contribution to current psychosocial functioning.
- May increase (vulnerability factor) or reduce (protective factor) the effects of war-time trauma and hardships in the form of a moderated relationship.
- May increase (vulnerability factor) or reduce (protective factor) the effects of post-war hardships in the form of a moderated relationship.

Reflecting this emphasis, the screening survey contained two sets of pre-war factors hypothesized to potentially influence post-war adjustment. These included 5 variables identified by Psychiatrist Michael Rutter in his studies of familial risk factors for childhood maladjustment:

- Parents argued/fought
- Parental divorce
- Parent alcohol/drug problem
- Parent went to jail
- Parent mental health.

In addition, we included 4 potentially traumatic life events.

- Family member had life-threatening illness
- Family member seriously hurt in accident
- Family member died
- Other traumatic experience before the war.

In this study, we created two pre-war variables by summing within each of these two categories.

2. Trauma. Trauma Exposure: Nine Dimensions. (War Trauma Exposure Scale, Layne & Stuvland, 1997)

The second therapeutic focus is directed towards identifying objective features of traumatic events that increase the risk for severe posttraumatic stress reactions. For this study, Rune Stuvland and Dr. Layne relied on theory, existing instruments, and the empirical literature to create 9 dimensions of war-related trauma. For this study, we have scored each dimension with a “1” if the students reported lifetime exposure to any event within that category, and “0” if the student reported never experiencing any event within that category. The categories include:

- Direct physical harm
- Witnessing violence
- Physical threat
- Deaths (war-related, non-war-related)
- Harm to loved ones

- Threat to loved ones
- Displacement
- Material loss
- Interpersonal strife.

3. Post-War Trauma Reminders

The third therapeutic focus is directed towards understanding the role of trauma reminders in mediating the relationship between trauma exposure and current distress symptoms. From a technical standpoint, a mediating variable is a link (B) in a causal chain connecting a causal variable (A) with an outcome variable (C), such that the effects of Variable A on Variable C are transmitted through Variable B. Thus, we propose that the relationship between what happened during the war and current distress is mediated by reminders of those experiences as they are found in the post-war environment.

These reminders may be *external* to the individual, including sights, sounds, places, times of day, or seasons of the year. In addition, these reminders may also be *internal*, including thoughts, images, and emotions that direct attention to memories of past traumatic experiences. In addition, because they are cues of traumatic experiences, we theorised that frequency of exposure to these reminders will be strongly associated with PTSD symptoms and, to a lesser extent, to depression and grief symptoms.

This study uses a measure of frequency of exposure to a common set of reminders called the Trauma Reminder Inventory (Layne, Steinberg, & Pynoos, 1997). In developing this measure, Dr. Layne and his colleagues relied on the results of a pilot questionnaire in which Bosnian adolescents identified “things that reminded them in upsetting ways of their most traumatic war-related experiences”. Items selected for the inventory were the most frequently identified, and are measured on a 5-point frequency scale. For this study, these items were summed to create one “reminders” scale score.

The *Trauma Reminder Inventory* (Chronbach’s Alpha = .87) measures frequency of exposure to 6 common types of reminders:

- Sudden loud noises
- Seeing soldiers, tanks, guns
- News of political instability & tensions
- Destroyed or damaged buildings, bridges, or streets
- People with war-related disabilities
- War-related restrictions on places I can go.

4. Post-War Adversities/Family Context

A fourth therapeutic focus is directed towards understanding the capacity of traumatic events to generate both acute (short-term) and chronic (enduring) hardships which, in turn, may serve as major sources of stress of their own accord. In a post-war setting, these adversities may include *existential* adversities, such as homeless-

ness, unemployment, and overcrowding, in addition to *interpersonal* adversities, such as family arguments and marital discord.

We theorised that these adversities are particularly important in understanding long-term post-war adjustment because they are highly transportable, constantly present, and potentially very stressful. For example, a displaced family may indeed leave behind many physical / geographical reminders of that event, such as the physical location where the traumatic events occurred, but will still "transport" with them, as "war baggage", trauma-induced disruptions within the family system.

For this study, we relied on both theory and the results of a principal components analysis to divide a list of post-war adversities (Post-War Adversities Scale; Layne, Đapo, & Pynoos, 1997) into two subscales. The first subscale is *existential adversities*, and consists of items common to displaced families such as living as a refugee, overcrowding, and uncertainty regarding whether one's family will be evicted. The second subscale is *domestic adversities*, and consists of stressful events occurring within the interpersonal family environment, including parental absence, serious health problems, and heavy family responsibilities. We used the scores on the two principal components as measures of the two post-war adversity subscales.

In addition, because traumatic and loss-related experiences are not unique to war, we also created a small subscale of post-war traumatic and loss-related experiences by summing the variables *death of a loved one*, *accidents*, and *a loved one is still missing*.

5. Interplay between Trauma and Bereavement

A fifth area of therapeutic focus is directed towards appreciating the interrelationship between trauma, and grief reactions. We believe this link is significant for several reasons. First, due to their nature, traumatic losses (especially deaths) may evoke PTSD, grief, and depressive reactions. Second, our clinical experience indicated that trauma reminders not only evoke PTSD symptoms, but also frequently evoke depressive and grief reactions. Third, research findings indicate that the presence of one set of symptoms (e.g., grief) may interfere with recovery from another set of symptoms (e.g., PTSD), thus increasing the risk of chronic disorder and dysfunction.

In this study, we used measures of PTSD symptoms, depression, and grief. These scales have been widely used with these populations and show good psychometric properties with respect to internal consistency reliability and convergent validity with measures of theoretically related constructs. These measures include the Revised Reaction Index, the Depression Self-Rating Scale, and the UCLA Grief Screening Scale. These scales are each measured on a 5-point frequency scale.

- Reaction Index-Revised (Rodriguez, Steinberg, & Pynoos, 1997): Chronbach's Alpha = .92
- Birleson Depression Self-Rating Scale: Chronbach's Alpha = .91)
- Grief Screening Scale (Layne, Steinberg, & Pynoos, 1997): Chronbach's Alpha = .85)

When developing the UCLA Grief Screening Scale, Dr. Layne and his colleagues theorised that both *normal grief* and *complicated grief* reactions would be present in these adolescents, the majority of whom have lost a loved one in the war. They theorize that complicated grief is characterised by intrusive thoughts and images connected to the violent and tragic circumstances of the death, which in turn interfere with important grieving processes, including remembering, reminiscing, talking about the deceased, learning about the deceased, and participation in grief rituals. We thus divided the grief scale into two subscales, *normal grief* and *complicated grief.*

Consistent with our theory, in this sample *PTSD* symptoms were strongly correlated with:

- depression (r = .71)
- normal grief subscale (r = .60)
- complicated grief subscale (r = .68)

Depression symptoms were strongly correlated with:

- normal grief subscale (r = .48)
- complicated grief subscale (r = .55)

In light of these findings, we chose to create a general psychological distress factor in our structural equation model that explained the strong correlations among these measures.

6. Developmental Impact

The sixth and last therapeutic focus is directed towards understanding and treating the developmental impact of trauma, which may be expressed in such diverse forms as:

- Delaying, interrupting, or in some cases prematurely accelerating the initiation of age-appropriate tasks such as dating.
- Creating uneven development across aspects of the self,
- Changing core beliefs about the self, others, the world, and the future,
- Disrupting primary relationships within the family and the peer group
- Decreasing academic performance.

To summarize, our theoretical model emphasizes pre-war factors, war-time factors, and post-war factors when addressing post-war adjustment. In this study, we include 2 measures of pre-war risk factors, 9 measures of war-time trauma exposure and loss, and 4 measures of post-war environmental factors that we hypothesize will mediate their influence on post-war distress.

Sample Characteristics

This study used a sample of 330 secondary school students taken from 7 participating schools throughout the Republika Srpska. Approximately 1/3 were male. As can

be observed in the table, the sample included a disproportionate number of 2nd year students.

Table 1: Sample

Student Age	Percent
14	3.3
15	19.7
16	38.3
17	25.1
18	11.9
19	0.4
Grade	
1	13.8
2	45.6
3	25.6
4	15.1
Sex	
Male	31.4
Female	68.6

Results: Structural Equation Model of the Post-War Ecology

As this model indicates, the prediction of post-war adjustment is a complex business. Two key elements are as follows:

First, the relationship between war-related factors and post-war distress is, with only two exceptions, entirely mediated through post-war trauma reminders, post-war traumatic experiences, existential adversities, and domestic adversities.

Second, the influences of the two pre-war factors are found only in the prediction of post-war domestic adversities. Thus, the influences of pre-war factors are also mediated via the post-war family environment.

The model gives a generally good fit:

- $X^2(126) = 228.87$, $p < .001$
- Normed fit index = .930
- Tucker-Lewis non-normed fit index = .944
- Comparative fit index = .966
- Root-mean square error of approximation = .05

The indices of fit are well within their acceptable ranges, and the model accounts for a substantial proportion of the variability in predicted variables. With respect to the mediating variables, the model accounts for:

- 52.3% of the variance in post-war existential adversities
- 15.3% of the variance in post-war domestic adversities
- 16.7% of the variance in post-war reminders

With respect to the primary outcome variable, *general psychological distress*, the model accounts for 54.7% of the variance.

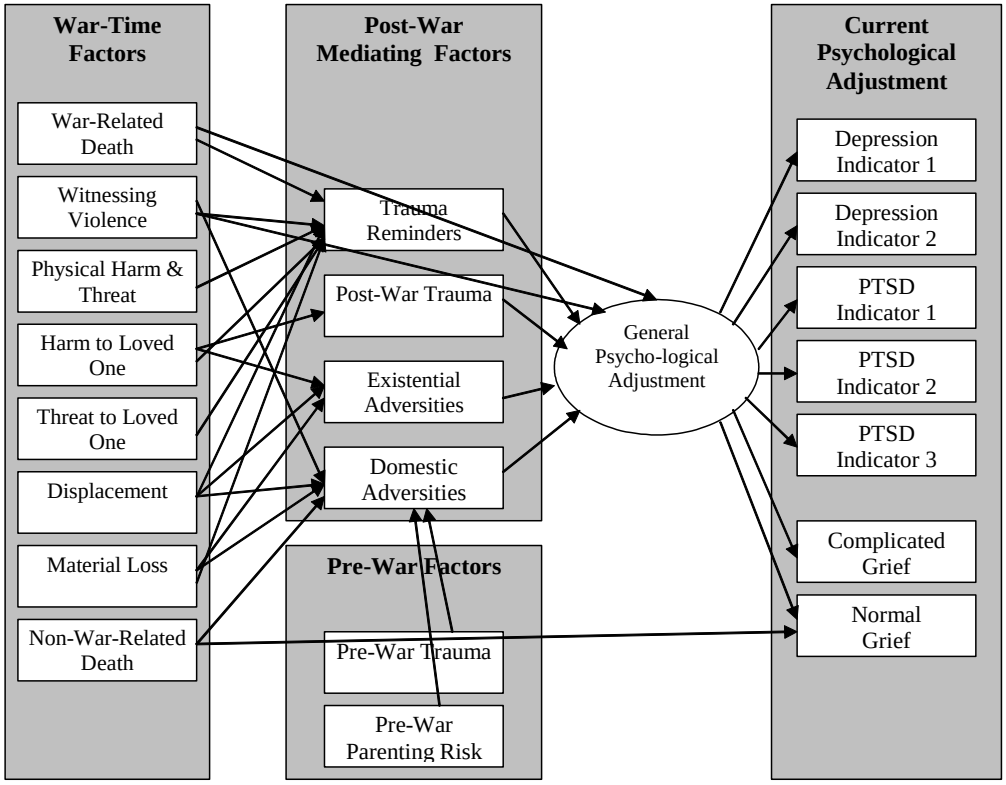
Implications of the Findings

These findings have several important implications.

First, the effects of war-related trauma and loss on post-war psychological distress appear to be mediated primarily via post-war contextual factors.

Indeed, only two war-related factors, war-related deaths and witnessing violence, have effects on psychological distress that were not “transmitted” via the post-war contextual factors contained in the model.

Figure 1: Structural Equation Model of the Post-War Ecology



Third, pre-war factors (parenting risk factors and pre-war trauma) contributed to the fit of this model of post-war adjustment, but their influence appears to be mediated by the post-war factor domestic adversities.

Fourth, frequency of exposure to trauma reminders appears to be a key mediator, both in terms of its relationships with war-related traumatic events and its strong relationship with psychological distress.

In summary, these findings suggest that the post-war family environment (both interpersonal and existential aspects) may contain a number of mechanisms responsible for perpetuating the effects of war trauma over time. Thus, the family environment, in addition to reminders, should be emphasised in both assessment and intervention efforts.

Potential directions for future clinical research include:

- Examining the mediating role of loss reminders (e.g., hearing the name of a deceased loved one)

- Examining a wider range of post-war stressful life events
- Examining the mechanisms through which family factors influence psychosocial adjustment (e.g., parenting characteristics; parent mood, perceptions of parenting self-efficacy)
- Investigating potential protective mechanisms (e.g., social support, self-esteem, locus of control, coping strategies)
- Examining developmentally-relevant outcomes (e.g., career aspirations, peer relationships, academic functioning)

Currently, Dr. Layne and his colleagues are conducting a longitudinal study examining these factors at two secondary schools in Sarajevo. This study is examining many of these previously mentioned variables, and includes over 900 adolescents, their primary caregivers, and a selected sample of their teachers.

Study Limitations/Concerns

This study contains a number of methodological weaknesses, including:

- Retrospective methodology
- Exclusive reliance on self-report data
- Cross-sectional design
- Crude measures of war trauma exposure (utilizing a "yes-no" format) obscure important differences in exposure
- Results do not generalize to all secondary school students in the Republika Srpska, but rather to classrooms of students known by school psychologists and pedagogues to have high concentrations of war-exposed students
- Students without a history of personal loss (i.e., missing grief scores) were excluded, reducing the sample size and generalisibility of the findings
- Screening survey includes sensitive questions that require empirical/clinical justification for inclusion

The University of London / UNICEF Child Mental Health Project in Mostar

William Yule & Patrick Smith

Institute of Psychiatry, University of London, U.K.

Background

It is widely accepted that 80% of the victims of modern day warfare are women and children. Civilian populations are deliberately targeted; "ethnic cleansing" and massacres are almost commonplace; populations are held hostage and under siege; even international economic sanctions are used as weapons in the struggles. The experiences that many war-affected children have faced are contrary to what most people consider to be the basic needs of every child: the need for continuity of care by a loved one; the need for shelter and food; the need for safety and security; the need for good schooling. All these are compromised. One has only to read the Declaration of Amsterdam: The Declaration and Recommendations on the Rights of Children in Armed Conflict adopted by consensus at a meeting in Amsterdam on 21 June 1994 (Aldrich & van Baarda, 1994) to appreciate how difficult it becomes to meet the needs of children displaced in such dreadful circumstances.

Since July 1993, members of our team have been working with UNICEF and other agencies in Bosnia to alleviate the distress caused by the war to children and their families. Following a number of fact-finding and consultation missions to Macedonia, Croatia and Serbia, we responded to a request to help re-establish child mental health services in Mostar in Bosnia Herzegovina. Our remit from Rune Stuvland, Psychosocial Advisor to UNICEF in former Yugoslavia, was to develop local capacity to meet the needs of the children and the families affected by war and to do so in a way that was sustainable. Over the years, there have been too many examples of hastily mounted interventions that go unevaluated and that peter out as the international NGOs move on to the next emergency.

Together with other colleagues contributing to UNICEF's efforts, we wanted to learn more from any interventions undertaken so that the lessons could be applied to future emergency situations. As far as helping children is concerned, we faced a situation where the normal infrastructure was all but destroyed, there being few child mental health professionals in Mostar to deliver services. The school system was up and running, albeit in difficult circumstances where many people acting as teachers had little or no formal training as such. But still, the school system was the sole remaining social structure that could deliver help to the children.

Our model and activities

We developed a public health model for intervention using the school system as the vector for delivery. We met with the representatives of the community on both the East (Muslim) and West (Croat) Banks in Mostar - albeit separately. We discussed with them what problems they were facing in schools and what sort of advice was

needed. Not surprisingly, they reported an increase in a wide range of stress reactions among the children, including difficulties in learning and problems of discipline. Together, we worked out a series of four seminars to be delivered by local school personnel with our general guidance and support. This we termed the Level I Training. The topics of the four seminars were:

- The role of the school in difficult circumstances
- Working with parents
- Burnout prevention
- Identifying and helping children in greatest need.

From among the many teachers in Mostar who participated, we selected two from each school who met weekly as a "professional's group" supervised by Patrick Smith and also later Berima Hacam. They discussed children whom they had been asked to help and also received additional training in such topics as:

- Bereavement in children
- Anger Management
- Special educational needs
- Speech problems
- Cognitive Behaviour Therapy Techniques.

We devised a leaflet that was delivered to all parents alerting them to possible difficulties their children may be presenting and how to get help. We worked alongside nursery school principals and with primary care doctors and nurses to improve the emotional development of very young children. We supported the initiatives taken by WHO and UNICEF in establishing a baby-friendly atmosphere in the maternity units - even given that these were containers in a field hospital. We consulted to NGOs running youth groups so that their staff could learn basic counselling skills rather than feel they had to pass the children on to specialist services. Finally, we set up a resource and counselling centre attached to a mother and child out-patient clinic to which children could be referred for small group and individual work.

Thus, we developed a hierarchical model of service delivery, founded on providing all primary school teachers with some understanding of the needs of children affected by war and of first aid measures they could take to help. The syllabus of the Level I training was developed with local teaching staff and they delivered it, first to all teachers in and around Mostar and later, Sean Perrin took an elaborated version and delivered it to over 2,000 teachers in Zenica and central Bosnia. At the next level, more experienced teacher/counsellors dealt with problems in schools, in groups and through the professionals' meeting. Finally, difficult cases were seen individually in the clinic.

All of this was driven by the prevailing WHO/UNICEF philosophy of community-based prevention and intervention. The overriding aim of developing sustainable services was to be achieved by providing appropriate training in relevant skills to local personnel, irrespective of their prior training. The fact that the clinic is still running - albeit on very uncertain financial footing - more than six years later is some evidence that we achieved our main aim.

Some lessons learned:

All of this took considerable time, patience and diplomacy. If services are going to work properly, they need to be owned by the local population. There are too many examples of "hit-and-run" projects that leave a trail of dissatisfaction in their wake. We found that we needed to develop tools to guide us in our work. At UNICEF planning seminars in Croatia and in Norway, we mapped out a series of tasks that different implementing partners would collaborate in achieving. Notably, we developed a battery of self-completion measures that children could use to indicate the nature and extent of their distress. The application of this battery to our study of 3,000 children and to a 1 in 10 sample of their mothers is described in the last section of this book. Together with colleagues in the Foundation for Children and War, we have continued to refine and build on this battery which has been used widely in studies throughout the world.

The battery needed to be reliable and valid, and also to be sensitive to change as one aim was to develop a short battery of measures that could be used in the evaluation of a variety of interventions. Thus, when it was used in different UNICEF-sponsored studies, it was found that children who received a structured art therapy course reported no significant change in their levels of distress whereas children who received a ten session program of cognitive behaviour therapy did show significant reductions in symptoms. Thus, even in the aftermath of war, it is possible to use simple, standard measures to evaluate intervention and contribute to knowledge on the efficacy of child therapies. Hopefully this will guide future service providers when selecting evidence-based interventions aimed at helping war-affected children.

Case study of work with a traumatised child

Mediha Imamović

Healthnet International, Bosnia and Herzegovina

Theoretical background

Children and adolescents are the most vulnerable population in the post-war period. Most of the children who visited the HealthNet International Community Counselling (HNI CC) were exposed to highly traumatic war-related events. As a result, they showed a variety of behavioural and emotional problems.

Hypotheses

- Children who experienced the loss of one or both parents are expected to show a wide range of problems (behavioural, emotional, interpersonal communication and relational problems)
- The multidisciplinary team approach in counselling is expected to be effective.
- The client's social skills and interpersonal relations with her mother and peers in school are expected to be improved after intervention (=therapeutic goal).

Client

A 9 year-old refugee girl, who experienced the loss of her father and spent several months in a concentration camp together with her mother.

Loss of father and adaptation (poor academic achievement) were the main problems, as reported by her mother.

Method

A multidisciplinary approach in work with traumatised children. During the treatment different therapeutic techniques (relaxation techniques such as PMR, role-playing, play-therapy, etc.) were used to help the girl to develop better coping styles, and to improve her social skills. Projective techniques (drawings) and SES-Birleson (test and re-test) were also used as a part of the assessment. The treatment lasted 15 sessions.

Results

During the treatment, besides emotional and behavioural problems, the counsellors recognised very bad interpersonal communication and a very bad general relationship between daughter and mother. The therapeutic goal was achieved: the relationship between mother and child, the child's academic achievement and socialisation, all improved.

Conclusion

This case study underlines the importance of involving the whole family-social network and of the multidisciplinary approach in the treatment of traumatised children.

Differential effects of a non-specific school-program on returnee children

Maria Gavranidou*, Ejub Čehić, Steve Powell & Elma Pašić

*Institute of Psychology, Ludwig-Maximilians-University of Munich, Germany

Introduction

After the end of the war in Bosnia, most of the Bosnian refugees who took refuge in the western European countries had to return. Most of them were abroad for more then five years. Many refugees – adults and children – can be seen as individuals who have been exposed to prolonged, multiple and repeated traumatisation. Furthermore the refugees were exposed to general problems of immigrants, namely the confrontation with the other culture (culture shock), isolation, the foreign language and so on. Most of the children stayed for more than five years in the host countries, learned the foreign language, the new customs and social rules, and managed to integrate in the foreign country. After this integration process which was successful for many children, the refugees had to again leave the host countries and go back, which meant starting with a new series of problems connected with the return. Retraumatisation, financial problems, the new social and economic situation in postwar Bosnia and housing problems all had to be resolved by the returnee families and their children. For that reason many humanitarian organisations which provided help during wartime now established programs for the reintegration of the returnees. The programs are sometimes specific in their goals; more often they are unspecific. At present we know little about the general and specific benefits of these programs. In our paper we want to present a prevention program for returnee children based in the school context and the differential effects of this program on children.

Hypotheses

Prevention programs have different effects on the appearance and course of psychopathological phenomena. Therefore we expected differential effects on the children participating in the non-specific prevention program presented below. We expected age, gender, amount of traumatisation and level of psychological symptoms to moderate the effects of the program.

Method

a) Wings of Hope (WOH) Reintegration Program

The main aim of the program applied to the refugee children in Bosnia funded by Wings of Hope was to support the reintegration process of returnee children in the changed Bosnian society (to enhance knowledge of the Bosnian language, to adapt to the Bosnian school system, to integrate in the peer group). Saturday classes were organised by teachers who were trained by Prof. Čehić in the following areas:

- information about the problems and difficulties the returnee children have to face;
- information about life in Germany;
- activities that improve the social climate in the classroom and the relationship between the returnees and non-displaced children;
- and activities to improve the children's resources (sports, arts).

b) Sample

Fifteen schools in Bosnia (elementary, middle and high schools) with a high percentage of returnee children participated in the program. Teachers who were interested in organising program classes were introduced to the goals of the program and trained. During the whole period Prof. Čehić (the organizer and initiator of the program) was the contact person and the supervisor for the teachers.

c) Measures

Different sources of information were used to gather data about the psychosocial, economic, trauma and flight history of the children and of their improvements and integration levels. Teachers gave information about the behaviour of the pupils in school, their marks, general achievement and school motivation. Parents answered questionnaires about the psychosocial status of children. The older schoolchildren and adolescents gave this kind of information by themselves, sometimes because parents refused or had no time to answer the questions, and sometimes because children felt old enough to talk about their situation.

Results

a) Sample characteristics

Data were collected for 1377 (53% girls, aged 6-21 years) returnee school children participating in the reintegration program (WOH). They had been living on average for five years in Germany with a length of displacement ranging from less than one year to nine years. Most of the children left Bosnia 1992 and returned in 1998. The majority of them are now living with both parents and only 19% with one parent or with other caregivers.

b) Psychological functioning

- Parents seldom reported psychosomatic problems and conduct problems; emotional problems were most often reported.
- Girls had higher scores than boys on the emotional problems scale.
- Younger boys had more emotional problems than older boys.
- Younger children had also more psychosomatic problems than older children.
- Boys and younger children were reported by their parents as having more conduct problems than girls and older children.
- Boys aged 6-10 was the group with the highest means for conduct problems.

c) Children's exposure to multiple stressors

- Half of the children experienced only one type of stress due to war.
- Loss of property was the most prominent stress (64.8%) followed by loss of a family member (14.8%), health problems in family (12.8%), wounding of a family member (9.1%) and other stressors (8.5%).
- Gender and age specific effects were not found.

e) Continuity in program participation

- Only 34% of the children participated continuously in the program. The most common reasons for the children's absence were "engagement in other activities or tiredness" (59.5%) followed by illness (41.1%) and distance from home (33.8%).
- Girls participated more often than boys.

f) Improvement in school achievement

- Knowledge of Bosnian did improve over the school year for boys and girls similarly. The younger children had the highest gains in this area.
- Children aged 11-13 years had the lowest scores at the beginning of the program and their gains were limited. In this age group the boys did worse in comparison to the girls.
- School achievement rated by teachers at the end of the school year shows significant improvement independently of gender and age.

g) Differential effects

In the next step a scale was constructed containing information about teachers' perceptions of improvement. This scale was introduced into in a regression model with the following predictors: Continuity of participation, gender, age, psychological problems (emotional, psychosomatic and conduct) and number of stressors due to war.

- Improvement in teachers' perception differed according to age. The younger the child the better the teachers ratings at the end of the school year.
- No overall gender effects were found.
- Younger boys and girls had the highest improvements and older boys the lowest.
- The regression analysis shows younger age, more continuity of participation, and a higher initial level of emotional problems as the best predictors for the teachers' perception of improvement.

Summary

In our study the differential effects of the Wings of Hope Prevention Program for returnee school-children were tested.

The aim of the program was to help Bosnian refugee children coming back from Germany to Bosnia to reintegrate in the changed society.

In summary, the results of our analyses indicate:

- Younger children and girls seem to improve more than older pupils and boys in the areas “knowledge of Bosnian and German” and also in school integration.
- According to the teachers’ perception of the overall improvement of the children, younger children who participated continuously in the program and had emotional problems had the highest gains.

Participation in a program of psychosocial support and reduction of posttraumatic symptoms in pre-school children and their mothers

Džemal Šestan

JZU Health Centre, Centre for Mental Health, Tuzla, Bosnia and Herzegovina

Introduction

War is the most significant of all traumatic events, leading to loss, separation, family crisis, physical and mental collapse and huge social changes (Vizek-Vidović, 19921).

Children's suffering is particularly pronounced, because of their dependence on parents, fear of separation, possible loss of one or both parents or of a very close person, the limited resources of desperate mothers who are carrying the biggest burden in the family and trying to cope with their new role in new circumstances. These are all additional stressors for a child (Ajduković, 1995).

Psychosocial support was a part of many assistance programs that were implemented during and after the war. The purpose of this support is to strengthen each beneficiary. The beneficiaries are thus assisted in alleviating the consequences of war trauma in themselves and their immediate environment.

Our experiences in daily work with pre-school children during 1995 and our later participation in psychosocial support programs for these children was the basis for the main question of this research: can participation in a program of psychosocial support reduce symptoms of trauma in pre-school children and their mothers?

Material and methods

Sample

The following groups were formed:

- Group *1:* displaced children aged 6-7 years, in kindergartens with groups providing psychosocial support (N = 32; F = 19, M = 13).
- Group *2:* displaced children aged 6-7 years, in kindergartens without groups providing psychosocial support (N = 32; F = 14; M = 18).
- Group *3:* displaced children aged 6-7 years, not going to kindergartens, and therefore also not included in any program of psychosocial support (N = 32; F = 16. M = 16).

- Group A mothers of children from group *1* (N = 32).
- Group B mothers of children from group *2* (N = 32).
- Group C mothers of children from group *3* (N = 32).

Forms of psychosocial support applied in group 1 and group A

Education of teachers; appropriate psychotherapeutic treatment and counselling work for children and mothers; and teacher counselling, all delivered by a psychologist.

Measures

Pre-test: Questionnaire on trauma and trauma symptoms – adapted for pre-school children aged 3-4 years. Posttraumatic Stress Symptoms Scale was applied for mothers (PTSS-10) (Horowitz, Wilner & Alvarez, 1979).

Post-test: On conclusion of the psychosocial support program, we gathered data again using the same questionnaires.

Results and discussion

The traumatic events experienced by the children who participated in this research were intense, diverse and cumulative. Mothers, as well as their children, had different traumatic experiences, but they were additionally burdened with the fact that their role in family had changed.

There are no significant differences in the total numbers of traumatic experiences among the three groups of children in the sample pre-test.

While analyzing the pre and post-test results for the presence of trauma symptoms in children in all three groups of the sample we noted a significant decrease of symptoms in group 1 compared to group 3.

The participation of traumatised children in kindergartens decreased the frequency of traumatised symptoms for mothers. The participation of children in kindergartens, psychosocial support of children and mother and continued education of teachers significantly decreased the level of trauma for mothers. The frequency of trauma symptoms in group *A (*the one that participated in the treatment) is 39.0%, and in group *C* (the one that did not participate in the treatment) 58.7%. Decrease of frequency in certain symptoms is seen in the following symptoms (in PTSS-10) in particular: nightmares, irritability, sudden mood changes, feeling of guilt and body tension.

This situation clearly points out that a large number of mothers with displaced children is highly traumatised. These mothers are in a stressful condition that influences their ability to function, because they are also battling with their own suffering. This also explains why a certain number of mothers in refuge were not able to fulfil their parental roles adequately.

Conclusion

This research shows that psychosocial support significantly reduces the level of trauma in pre-school children and their mothers.

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Psychosocial support of children during the war in relation to well-being and coping strategies

Renko Đapić* & Rune Stuvland

*Department of Psychology, University of Sarajevo, Bosnia and Herzegovina

In cooperation with research team:

Melita Sultanović, Hajrija-Saza Jahić, Đula Čerimagić, Ifeta Bajramović, Aida Lomigora

The research was conducted as a part of systematic psychological reviews that are a part of a UNICEF psychosocial project in Sarajevo schools, which was initiated in 1993.

Theoretical background

This paper compares results for a group of children that participated in a psychosocial program with results of the group that was not included in such programs. Basic data used for this paper was gathered during a systematic psychological review in Spring and Summer 1997. The main goal of this research was to identify the presence and frequency of coping strategies in children during and after the war, and the children's evaluation of the usefulness of certain coping mechanisms. Results of this study could be used for the evaluation of the effectiveness of psychosocial programs from the subjects' point of view, or more specifically from the point of view of elementary school pupils in Sarajevo.

Hypotheses

We tested two major hypotheses:

1. There is a significant connection between the subjective evaluations of children on how good were they feeling in difficult circumstances (before, during and after the war) and a) intensity and quality (type, number of activities, location and duration) of participation in psychosocial programs; b) frequency of different coping strategies used; c) efficiency of these strategies.
2. Certain characteristics of the children's participation (type, number of activities, time spent in that activity) in psychosocial program are significantly connected with the frequency with which the children used different strategies and their evaluation of their usefulness.

Sample

Data for this report was collected from 226 pupils that are a part of a sample in the screening supported by UNICEF: (119 girls and 107 boys; average age 13.3 years) They attended 6 elementary schools from four different municipalities in Sarajevo.

Main instruments used

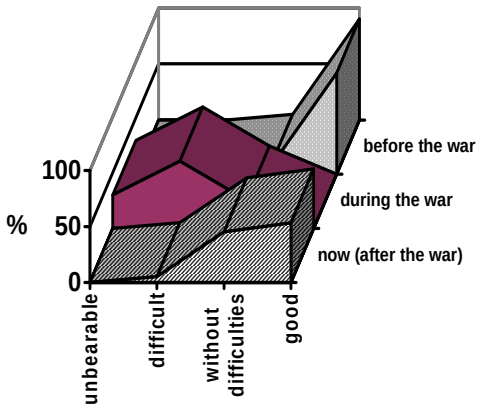
- A questionnaire ”How was I living?”, (Questionnaire KZ, 1997) designed to assess a general feeling of well-being was filled in by pupils. The first part of the instrument consists of a four-level scale with questions related to the subjects' overall sense of well-being (unbearable, difficult, without problems, good) for three different periods: a) before the war; b) during the war and c) today (after the war). The second part of the instrument contains questions (K1-K7) related to participation in psychosocial programs: type and number of activities, location of program and duration of participation.
- The questionnaire for pupils on coping strategies (SCSI, Rayan-Wegner) consists of two series, each containing 26 items (on coping methods) filled in by pupils. The first group of questions is related to frequency (“How often do you do this?”), and the other group refers to the evaluation of effectiveness (“How helpful is that?”). All items were measured with four-level scales.

Method

Psycho-pedagogues from schools gathered data under the supervision of the first author. The first instrument (KZ) is an adaptation of the PROC-OP scale for children and previously applied on a sample of Bosnian adolescents (cf. Duraković, 1998). The second instrument (SCSI) had been previously applied in Croatia (cf. Barath et al., 1993,) and then translated and adopted to the situation in Sarajevo. School psycho-pedagogues distributed the instruments to children. Children would then fill them in individually. Where necessary, younger children were given assistance in filling in the questionnaire. Data was analysed at Sarajevo University.

Results

Figure 1: how the children felt before, during and after the war



In retrospective evaluation, the vast majority of children remembered *before the war* as a time when they were feeling good. In contrast, only 15,6 % of the children remembers *war period* as a time when they *did not experience any difficulties* or when they were *feeling good*. The *Post-war period* is not being considered by any subject as an unbearably difficult time, one third of the sample (34,2%) masters the present phase without any difficulties, and 61,8% feels good (see figure 1). This data confirms the expected differences between boys and girls with regards to their vision of the war period (slightly more dif-

ficulties are seen by boys), and between older and younger children with regards to their experience of the post-war period (younger children are slightly more optimistic) *(cf. Table 1).*

Table 1: Comparison of younger and older children

		age		
KZ Questionnaire. Now (after the war) feels:		younger	older	Total
Difficult	Frequency	4	5	9
	% within KZ	44.4%	55.6%	100.0%
	% within age	3.6%	4.4%	4.0%
	% of Total	1.8%	2.2%	4.0%
Without any difficulties	Frequency	29	48	77
	% within KZ	37.7%	62.3%	100.0%
	% within age	25.9%	42.5%	34.2%
	% of Total	12.9%	21.3%	34.2%
Good	Frequency	79	60	139
	% within KZ	56.8%	43.2%	100.0%
	% within age	70.5%	53.1%	61.8%
	% of Total	35.1%	26.7%	61.8%
TOTAL	Frequency	112	113	225
	% within KZ	49.8%	50.2%	100.0%
	% within age	100.0%	100.0%	100.0%
	% of Total	49.8%	50.2%	100.0%

chi-square Test	Value	df	Asymp. Sig. (2-tailed)
Pearson chi-square	7.392	2	0.025

N of Valid Cases: 225; The minimum expected count is 4,48.

When compared with other pupils, amongst pupils who received psychosocial activities directly in their schools there is a statistically significantly higher number who have no problems or feel good in the post-war period *(cf.Table2).*

Table 2: Comparison of effectiveness of immediate school environment and other organizations

KZ3:			Feels			
			difficult	without any difficulties	good	Total
Where was this activity organised?	(1) school	Count		27	49	76
		% within school		35.5%	64.5%	100.0%
		% within KZ		67.5%	73.1%	68.5%
	(2) other organisation	Count	4	13	18	35
		% within other organisation	11.4%	37.1%	51.4%	100.0%
		% within KZ	100.0%	32.5%	26.9%	31.5%
	Total	Count	4	40	67	111
		% Within where?	3.6%	36.0%	60.4%	100.0%
		% within KZ	100.0%	100.0%	100.0%	100.0%

chi-square Tests	Value	df	Asymp. Sig. (2-tailed)
Pearson chi-square	9.379	2	.009

N of Valid Cases: 111. The minimum expected count is 1.26.

When compared with those who were not included, it seems that children who participated in psychosocial programs were using certain constructive, cognitive and socially focused coping strategies, as follows.

We made a list of the most used and most efficient coping methods *(cf. Table 3)*. Watching TV and listening to music, as the copying mechanisms considered as most effective, should be taken into serious consideration in all future evaluation and planning of psychological assistance in difficult circumstances.

Conclusions

Analysis of data on use and efficiency of coping strategies suggests that a majority of subjects has a way to fight with difficulties in a flexible way and applies different coping mechanisms. Results suggest that programs of psychosocial interventions, especially if they are connected with the support of immediate school environment, help children to be more resistant and more flexible while applying suitable coping strategies.

Table 3

List of effectiveness of coping mechanisms	% of children who consider this mechanism to be *effective*	% children who find the first five mechanisms *very helpful*)
Watching TV, listening to music	93.2%	66.5% ;
talking with someone else	87.2%	43.8% ;
walking, running, riding bicycle	80.9% ;	41.1,%,
drawing, writing, reading	80.8% ;	46.6% ;
trying to relax and stay calm	79.3%	30.0%.
expressing sorrow or talking truthfully about the event	73.3%	
praying	71.8%	
playing	67.2%	
daydreaming	62.6%	
eating or drinking	62.3%	
		Mechanisms that are not helpful :
		-getting angry: 49.1%
		-fighting: 48.4%
		-teasing others: 32.4%
		-being alone: 26.8%
		-biting nails
		or “cracking knuckles”: 25.0%

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Evaluation of results of cognitive-behavioural therapy with traumatised children of displaced persons

Mirha Šehović

Faculty of Philosophy, University of Tuzla, Bosnia and Herzegovina

Theoretical background

According to UNICEF data, in 61 municipalities in Bosnia and Herzegovina, around 16,708 children died, starved to death, or went missing during the war, and 34,351 were wounded. In such a situation children should be helped to reduce their trauma symptoms and increase their ability to adapt.

This research (conducted in the period 1995-1998) is an empirical test of the model of treatment for traumatised children and adolescents suggested by the Department for Child Psychiatry and Psychology from Columbia University Missouri, U.S.A, by Syed Arshad Husain, M.D., William R. Holcomb, Ph.D., and I. Scott Brown, M.A. (1994). This model suggests treatment of PTSD for children and adolescents through cognitive-behavioural therapy and related techniques. Particular focus is placed on the evaluation of the CBT, and on five techniques applied for the purpose of achieving positive effect. We were interested in finding all factors leading to changes that are not only statistically but also clinically significant. Changes were considered to be clinically significant in cases where observers evaluated the traumatic and maladaptive behaviours of children to have reduced to an acceptable level. Stability of improvement was assessed via a follow-up evaluation two years later.

Hypothesis

There will be a tendency towards significant and constant recovery after a three-month cognitive-behaviour therapy treatment in the experimental as opposed to the control group according to assessments by psychotherapists (using psychological instruments), parents and teachers.

Sub-hypotheses

- At the end of the treatment, and 6, 12 and 24 months after the end of the program, the experimental group will show significant and stable reduction of PTSD symptoms for the children, compared to the control group, which is matched with the experimental group in all relevant parameters.
- Therapist, teachers and parents will assess that the subjects from the experimental group, when compared to subjects from the control group, are significantly more recovered and stable.

Sample

The data was gathered from two groups of 122 subjects. The research sample was divided into two experimental and two control groups: E1 = school children aged 6.5-12 years; E2 = young adolescents aged 13-16 years; K1 = school children aged 6.5-12 years; K2 = young adolescents aged 13-16 years. The children had been forced to leave Zvornik, Bratunac, Vlasenica, Cerska, Konjević Polje and come to Srebrenica. In Srebrenica they were under siege for a year and they witnessed the most horrifying experiences and the collapse of Srebrenica. At that point they were separated from their fathers and forced to go to Tuzla with their mothers.

Instruments

The instruments used in our research enable diagnosis of disorders that are a part of the DSM-III-R and ICD-10 classification. There were seven in all:

- PTSD Reaction Index (Pynoos et al., 1987);
- Self-evaluation scale;
- Impact of Event scale – revised form (Horowitz, Wilner and Alvarez, 1979);
- PTSD questionnaire for children (Saigh, 1991);
- URT (Stuvland, 1992);
- Questionnaire for mothers;
- Questionnaire for teachers.

Research and procedure

The therapy treatment for the experimental group was applied three times a week by a therapist, and the children were under the influence of the therapy during the entire day, thanks to the mothers and teachers.

The procedure was divided into three phases:

- Initial phase (client-focused interview – 2 weeks);
- Treatment phase (application of the treatment three times per week for a period of 12 weeks; education of mothers). The effects were checked every 7 days for 4 weeks, in case some techniques had to be corrected;
- Evaluation phase – 2 years.

The following techniques were applied: problem solving, self-monitoring; model teaching; self-instruction; systematic influence of pleasant stimulus (our new modified technique).

The only difference between the experimental and the control group in this specific case was cognitive-behavioural treatment (CBT).

Sources of the evaluation of effects were in our case: self-report, self-monitoring, evaluation of therapists, evaluation of “significant (relevant) others”.

Results and conclusions

We tested the difference in the frequency of PTSD symptoms (evaluation of the child, therapist, mother and teacher) at the beginning of the treatment, the end of the treatment (3 months), and then 6, 12 and 24 months after conclusion of the treatment. It can be concluded that the results for the subjects of the experimental and control group are statistically different. The children, their therapists, mothers and teachers evaluated significantly fewer trauma reactions in the experimental group than in the control group after 3, 6, 12 and 24 months. This is evidence for the above-mentioned hypothesis.

A positive outcome of the treatment will depend on a child's ability to use learned techniques throughout the entire day (problem solving technique, self-instructions, model learning, self-monitoring, modified technique of a systematic influence of nice words).

In order to achieve a positive outcome during implementation of the CBT method with the mentioned techniques, we needed to use following rules:

- The child needs to speak about his problem with parents or with an older person so that they can find a solution together.
- A parent must be interested in helping his child, must listen to the therapist and implement his instructions, and must remind his child to implement the treatment outside sessions. Parents should reward the child and teach him to do good things.
- Parents should be aware of the fact that they are a role model for their child, and that they must therefore control their behaviour. A mother is a source of joy, peace and support for her children.
- An aesthetic environment, pleasant words and texts also reduce stressful and traumatic experiences and induce positive thoughts, pleasant emotions and acceptable behaviour.

The effect of war on children's speech

Sadeta Zečić

Faculty of Defectology, University of Tuzla, and Institute for Special Education and Care of Children ("Mjedenica"), Sarajevo, Bosnia and Herzegovina

Background

Good speech is a prerequisite for normal development of the bio-psycho-social personality of a child.

Aim

The goal of our research was to determine the number of children in pre-school institutions who stammer, and the cause and degree of stammering.

Sample

The research was conducted in 1997, on a sample of 680 children in 10 kindergartens in Sarajevo.

Instruments

We used the Riley Test to assess the degree of stammering (Riley, 1972).

Therapeutic method

The research team that worked with the observed children consisted of: kindergarten leaders, a speech therapist, a neuro-psychiatrist and a defectologist. The neuro-psychiatrist applied a special program of treatment and rehabilitation. The survey and the observation of the children and parents lasted longer. This meant we had a shorter and more successful period of rehabilitation.

Results

The results showed that 33 children manifested a stammering disorder. It is important to note that the work of the speech therapist took place after the work of a neuro-psychiatrist. The reason for this is that the causes of the speech disorders were connected to the war. Exposure to the stress of war situations led to a distressed psychological state. Children were regressive, quiet, irritable, unsociable and had a tendency to cry. The children had experienced some of the following traumatic experiences: death of one parent, situation where the mother or father had abandoned the family, witnessing death, etc. After two years of treatment by the speech therapist and the neuro-psychiatrist, we had good results.

Conclusion

Speech therapy as part of team work with other experts gives good results and successfully helps remove stammers and associated phenomena in younger children, where the stammer and associated phenomena are the consequences of exposure to war traumas.

Evaluation of psychosocial intervention with traumatised adolescents

Veronika Išpanović-Radojković*, Vesna Petrović, Hilton Davis, Lazar Tenjović & Teodora Minčić

*Institute for Mental Health, Belgrade

This research is a part of the intervention program “Assistance to children and families in crisis” conducted in Serbia by the Institute for Mental Health in Belgrade and supported by UNICEF, Radda Barnen/Red Barna (Sweden and Norway) and Intercare (Netherlands).

Introduction

The war in former Yugoslavia exposed hundreds of thousands of children and young people to very intense, very often multiple, traumatic stressors, followed by a series of chronic unfavourable circumstances during displacement and refuge.

According to several studies of child refugees in Yugoslavia (Serbia and Montenegro), symptoms of psychological suffering were present in 65-81% of children and young people during the first months of their refugee life. After 1.5-2 years, difficulties were present in 35.5% of children, while 25.5% of children had symptoms of chronic reaction to stress even after 3 years. The number and level of symptoms was significantly related to the level of exposure to war stressors, support of parents/family during stressful situations and psychosocial support of the new environment.

In order to assist psychological recovery and integration of refugee adolescents from B&H (Bosnia and Herzegovina) and Croatia, we applied psychosocial intervention through “Clubs for young people” in eight boarding high schools in Belgrade (2,400 pupils between 15 and 18 years of age, including approximately 400 refugees).

During 1993-94, the Club was supported by the British humanitarian organisation OXFAM, and since then by Intercare, a Dutch humanitarian organisation.

The activities of the Club consisted of a “creative-recreational part” (social games, music, literature, painting) and a sociotherapy group (15-20 young people). The Club was open once a week, and monitored by a psychologist/psychiatrist. The adolescents were free to decide on the structure and content of the activities of the Club.

Hypothesis

Our hypothesis was that the psychosocial intervention “Club for Young People” significantly decreased the symptoms of psychological suffering (anxiety, withdrawal and aggressive behaviour) and the level of trauma, and increased the self-respect of adolescents with war traumatic experiences.

Sample

The sample is made up of 1,106 pupils from boarding high schools in Belgrade aged 15-18 years, of both sexes (813 boys, 293 girls), 158 of whom were refugees. Of the sample pupils, adolescents (N=128) who participated in the “Club for Young People” for 6 months form the experimental group, while the others (N=978) form the control group.

Method

This study is quasi-experimental, because the subjects were not randomly assigned to the experimental or control group. Instead, groups were formed in a spontaneous way, on the basis of decisions made by the adolescents participating in the activities of the Club.

The intervention was evaluated by comparing the changes seen in the experimental and control group of adolescents before and after intervention.

Main instruments

- The Youth Self Report (Achenbach et al, 1991) for young people from 11 to 18 years of age, which measures presence of the following psychological problems: Withdrawal, Somatic Problems, Anxiety-depression, Cognitive problems, Social Problems, Attention problems, Delinquent behaviour, Aggressive behaviour.
- Self-respect of adolescents (Wolf, Davis et al. 1996) – this questionnaire evaluates similarities or differences between actual self and ideal self (“What kind of person I am now” and “The kind of person I would like to become”).
- Questionnaire on war trauma (Wolf, 1994);
- Impact of Event Scale (Horowitz et al. 1979) – measures level of trauma via PTSD symptoms (Intrusion and Avoidance).

Results

- Girls (66.8%) had more often had at least one traumatic experience than boys (56.2%). In total, traumatic experiences were more common among refugees where 88% of girls and 74,1% of boys had traumatic experiences, mostly related to the war.
- The level of trauma of young people from our sample was between *medium-high* and *high*. Refugees expressed a significantly higher level of trauma than non-refugees, according to the Impact of Event Scale. Girls, refugees and non-refugees, also expressed a significantly higher level of traumatic stress.
- Significant connections were found between the psychological problems of young people as measured by the Achenbach Scale, and sex, refugee status, and traumatic experience. Girls had higher results than boys on all scales except on the scale of social problems and delinquency. Male refugees had significantly higher scores than male non-refugees on the scales of withdrawal, somatic difficulties, anxiety-depression and cognitive problems, which indicates that male refugees tend to internalize their problems.

- Self-respect was lower in refugees, but for girls and young people with traumatic experiences, it was lower regardless of their refugee status.
- Among young people who participated in activities of this club, we had more refugees (21.9%), young people with traumatic experiences (65.5%) and young boys (81.3%). This means that the clubs were attractive to refugees, especially to those with traumatic experience. The club was formed primarily for the purpose of their recovery and psychosocial integration.

Here are some of the most significant changes in the young people who participated in activities of these clubs:

- 78% or the adolescents said that their understanding of themselves had improved; 63% reported an improvement in their understanding of others; and 60% said that it was also much easier for them to make contact with their peers;
- a significant increase in self-respect was registered in all adolescents;
- the psychological problems of young people, especially refugees, were significantly decreased. Significant decreases in symptoms on the following Achenbach Scales were registered: Withdrawal and Anxiety-Depression (for male refugees), and Withdrawal and Social Problems (for female refugees);
- the level of traumatic stress of young non-refugees decreased. However, this positive effect did not occur with refugees: we even noticed that IES scores increased.

Discussion

How can we explain what seems to be a controversial result? Refugees that participated in the activities of this Club felt better, their psychological problems, measured with the Achenbach instrument, decreased, their level of self-respect increased, but the level of their trauma, measured by the Scale of Intrusion and Avoidance from IES, had increased?

The answer can be found in the nature of this intervention. The club of young people is a psychosocial intervention focusing on activation and strengthening of personality. This club does not “dig away” at weak and vulnerable parts of the personality. It is possible that participation in the activities of the club helped adolescents to feel stronger, and therefore to fight painful memories of traumatic experiences more easily; perhaps tried to integrate those memories with their personal concept of the world and their position in that world.

Considering the fact that the dominant psychological mechanism of young refugees, especially males, before the interventions was internalisation, we can presume that their participation in the activities of this club has helped them to “open up”, to discard their passive role “of a victim that needs help”, and take control of their lives, thoughts and feelings. This explanation is confirmed by the fact that young people felt better after the intervention, regardless of the fact that they thought about traumatic events even more.

The question is whether the healing process that was strengthened with this intervention was successfully concluded in all adolescents, or whether there are some

adolescents who had need of a longer psychotherapeutic intervention. A long-term study of refugee adolescents who participated in this intervention could give an answer to this question.

I am sure the best “medication” for young people who have had traumatic experiences is to give them a chance to control reality and set up goals with which they can identify, so that they can fight for them. Or as Karsten Hundeide (1995) said,“...When you create a context of hope, predictability and continuity of the future, it is much easier to integrate and express traumatic experiences, because you have certain security in the future. In the same way that we feel secure about our past, we should feel secure about our future. Even when we do not feel secure about our past, we can use that and feel much more secure about our future...”

Conclusion

This research confirms that the Club for Young People is an efficient psychosocial intervention that reduced suffering and prevented negative outcomes of traumatic experience for the majority of adolescent refugees. However, we need to conduct further investigations related to the process of healing after traumatic experiences, and to look for efficient forms of intervention for highly traumatised adolescents.

Evaluation of an intervention for children's trauma

Vesna Petrović* & Veronika Ispanović-Radojković

*Department of Psychology, University of Novi Sad, Serbia and Montenegro

This project was carried out in cooperation with the UNICEF program, "Children in Need" and was the subject of the PhD thesis of Vesna Petrović (1998): Psychological consequences of the war trauma of children, University of Belgrade Faculty of Philosophy, Belgrade. This contribution is related to the contribution starting on page 209.

Theoretical background

The main background is the theoretical developmental model of traumatic stress in children. The intervention program had an eclectic orientation. The main intervention influences were primarily from cognitive and analytical psychotherapy.

Hypothesis

After a short psychological trauma intervention there will be an improvement in the level of trauma and in personality indicators of traumatised children.

Sample

The sample of children for trauma intervention included around 130 traumatised children from 11.5 to 14.5 years old. Part of this group formed a control group, with 30 children who were tested with a psychological battery of instruments, waited for the intervention for three months and were again tested before receiving any intervention.

Main instruments used

Group application

- Preliminary Trauma Questionnaire, PTQ (Wolf, 1994);
- Impact of Event Scale, IES (Horowitz et al., 1979);
- Cybernetic Battery of Conative (motivational) Tests for Children, KON/d (Momirović et al., 1989);
- Self concept Scale, SELF (Hrnjica & Đurić, 1990);
- Locus of control scale, LOCUS (Nowicki & Strickland, 1973);

Individual application

- Children's War Trauma Questionnaire, CWTQ (Raundalen, Dyregrov & Stuvland, 1992);
- Index of children's PTS reactions, CPTSRI (Frederick, 1985; Pynoos et al., 1987);

- Evaluation of treatment Scale, EVL, D and T (Davis, 1991).

Other details

The method applied was an intervention program based on the activities of the Centre for Crisis Interventions from Bergen, an initial consultation with Robert Pynoos, and local adaptation of these two approaches. The research was conducted in 1994.

Method

25 school psychologists were trained for the intervention. They then applied their knowledge in school, while working with children. The psychological intervention for children's trauma that was used was a package of five sessions with the children, each lasting two months. This is a combination of individual and group approaches and is considered to be practical and effective (Petrović & Išpanović-Radojković, 1994).

The sessions were as follows:

- During the first session the psychologists tried to establish good contact with the child and test him or her with individual psychological instruments. Each session had to end with positive content, and in a good and safe place for the child.
- During the second session the psychologists had to conduct an initial consultative interview (Pynoos & Eth, 1986) with the traumatised children.
- The third session was dedicated to drawings and stories about "my most horrifying experience". During the third session, the psychologists were encouraged to talk about a journal written by the child, with the purpose of exploring some important but neglected aspects of traumatic experience.
- During the forth session, the psychologist and child worked on the most horrifying event, or talked about content that had been mentioned by a child, but that had never been discussed.
- During the fifth session, the psychologist began work in groups (4 to 8 traumatised children who had participated in four individual sessions). The children in the group divided into pairs and introduced themselves by saying things that their partner should know about them. Each child would than present his partner to the rest of the group. After that a group of four children would draw collective drawings on the following subjects: love, friendship and future. After finishing their drawing, the children made up a collective story based on the drawings, adding sentence after a sentence, and creating a story with a beginning, an end and a specific title. At the end the group leader (school psychologist) gave feedback, using whatever was produced by the children during the session. Two weeks to one month after the final session we concluded the therapy with each child, using an individual battery of psychological instruments. The children and psychologist evaluated the intervention individually.

Results

The trauma intervention applied decreased the level of trauma of children from medium to mild (CPTSRI) and from high to average (IES). We also recorded an improvement in all measured personality traits, except introversion. Some of the major changes were decreases in conversion and anxiety. Aggressiveness and depression did not change significantly. We can presume that verbal and other expressions of traumatic situations and strong emotions decrease the level of conversion and anxiety. However, in order to decrease the level of rage and sadness we need to work with the child for a longer period of time. We should emphasise that the group of children with whom we worked has suffered many losses and traumatic deaths that require long-term treatment.

We also used two additional methods of evaluation: small control group and evaluation of the quality of sessions and of the working process made by the psychologists and the children. Both methods confirmed that the changes are real, which means that they were the result of the treatment. As for the results of the control group, in the period of time when the group was waiting for an intervention, there were no changes expect on the psychosis scale. We can presume, therefore, that in the case of children who do not receive any psychological help, these changes may result in much serious pathology and dissociation. As for the evaluation of treatment given by the psychologists and the children, from this we found out that the most important thing for a child during a treatment is: to feel accepted, to receive support, to be carefully listened to. These findings can be interpreted in an even broader way: the child is now able to understand, to tolerate his reactions easily, to confront traumatic events and to integrate them with his or her system.

Conclusion

These results confirm the connection between level of trauma and personality traits, and justify the need for this intervention for children's trauma. The results also demonstrate the efficiency of the intervention.

Principles and effects of a program for the psychological support of war-traumatised children

Nila Kapor-Stanulović & Marija Zotović

Department of Psychology, University of Novi Sad, Serbia and Montenegro

Theoretical background

The group sessions which form the basis of the psychological program "Children in Need", presented here, follow many years of work by Israeli authors (Lahad & Cohen, 1993; Ayalon, 1992) with adults and children living on the front line.

The purpose of the group work is to cognitively work on and emotionally express memories and feelings related to traumatic events. In this way we achieve integration of knowledge, feelings and behaviours that alleviate unwanted effects of war stress and strengthen our ability to cope with stress and develop a positive self-image.

The tools which we use in order to achieve the above-mentioned goals are creative expressive and projective techniques, above all drawings and play. Use of written texts and other text-based tools, ("bibliotherapy"), also plays a very significant part. In addition to these techniques we include elements of psychological debriefing.

Sample

The subjects are children from B&H (Bosnia and Herzegovina), recommended for the project "Children in Need" by local health workers as children whose psychological and physical health was endangered by war. All children had suffered different traumatic events, such as wounding, threats to life, death of a close person, wounding, threats to the lives of close persons, witnessing war horrors etc.

The average time since the most horrifying experience was 2.5 years. Not one of the children from the sample had ever received any professional help.

This evaluation includes only children older than 10 years, because the psychological instruments used are not suitable for younger children (with the exception of the N-V SOS scale, which is non-verbal).

We used the Impact of Event Scale to examine 266 children from 10 to 16 years old. We collected data using the List for Pupil Evaluation from 170 of these children, and data using the Non-verbal Scale of Suffering from 54 of them. Differences in the number of subjects that were evaluated with different techniques are a result of the sudden and unexpected need for the programs which were themselves developed and improved as we went along.

Main instruments used

For the purpose of evaluation of the psychosocial program we used the following instruments:

1. Impact of Event Scale (IES); Horowitz et al. (1979), which estimates PTSD symptoms: intrusion of effects related to trauma and avoidance of everything that reminds one of the trauma.
2. Pupils' evaluation list (LPU; Wolf, 1996); an evaluation scale that is applied by persons who know children very well, in particular by teachers. The list includes the following characteristics: tolerance, withdrawal, insecurity, aggressive behaviour, emotional coldness, tension and curiosity.
3. Non-verbal scale of suffering (N-V SOS); Human Sciences Centre Yuma, (1981), that estimates the level of suffering of subjects.

Procedure

The psychological treatment of the children included in this program consisted of eight group sessions (workshops). Each session was moderated by a trained psychologist. Sessions were organised twice a week, each lasting 1.5 to 2.5 hours.

We followed the pre-test – treatment – post-test schema. The main data analysis was t-tests for dependent samples.

Results and discussion

Table 1 shows a comparison between the mean of the first and second evaluations (pre- and post-test) as measured by the Impact of Event Scale.

Table 1. Results of comparison between pre- and post- test on the Impact of Event Scale

		N	AS	SD	t	df	p
IES	pre-test		30.32	17.00			
	post-test	266	26.62	16.64	4.39	265	.000
Intrusion	pre-test		12.83	8.44			
	post-test	266	10.52	8.53	5.10	265	.000
Avoidance	pre-test		17.85	9.95			
	post-test	266	15.37	9.17	8.29	265	.000

A comparison of means from pre- and post-test for each of the characteristics that are part of the Pupils' Evaluation List is presented in Table 2.

Table 2: Results of comparison between pre- and post -test made on the Pupils' Evaluation List

LPU		N	AS	SD	t	df	p
Tolerance	pre-test	170	3.29	0.96	-1.46	169	0.147
	post-test		3.39	0.86			
Withdrawal	pre-test	170	2.02	1.10	0.56	169	0.576
	post-test		1.99	1.05			
Insecurity	pre-test	170	2.00	0.96	2.65	169	0.009
	post-test		1.85	0.90			
Aggressive behaviour	pre-test	170	1.44	0.83	-0.33	169	0.723
	post-test		1.46	0.81			
Emotional coldness	pre-test	170	1.62	0.89	2.47	169	0.014
	post-test		1.46	0.75			
Tension	pre-test	170	1.89	0.92	0.40	169	0.687
	post-test		1.87	0.85			
Curiosity	pre-test	170	3.14	0.97	-0.89	169	0.377
	post-test		3.20	0.89			

A comparison of means from pre- and post-test on the N-V SOS scale is presented in Table 3.

Table 3: Results of comparison between pre- and post- test on the N-V SOS scale.

N-V SOS	N	AS	SD	t	df	p
pre-test	54	86.50	56.44	1.87	53	.067
post-test		73.13	60.33			

A comparison of results from pre- and post- test shows a statistically significant difference on the Impact of Event Scale in general, and in its specific subscales. This demonstrates that children who have taken part in the psychosocial program, will have significantly fewer PTSD symptoms at the end of the treatment. However, although there is a significant decrease in symptom frequency, means at both pre- and post- test nevertheless still show a medium level of traumatisation of subjects, according to the norms for the local population (Petrović, 1998).

This result may be a consequence of the fact that the subjects were heterogeneous with regard to degree of trauma, assuming that the program effects differ within

groups of children with different types and degrees of trauma, and that they are more significant in some groups, while in others less significant or irrelevant.

Statistically significant differences between pre- and post- test were registered in two of the dimensions of the Pupils' Evaluation List. These were the dimensions *insecurity* and *emotional coldness*. The children had lower, i.e. better, scores post- test. We did not register statistically significant differences between pre- and post- test on the other aspects of the PEL.

The period of four years for which this psychosocial program lasted was not long enough to improve all the evaluated characteristics.

The difference between pre- and post-test on the Nonverbal Scale of Suffering is not quite significant, but it is very close to the level of significance $p = .05$, with lower, i.e. better, mean results at post-test. Since the N-V SOS was given to a very small number of participants, the results of this technique are the least reliable.

We cannot say for sure which factors of the program improved the psychological condition of the subjects, but we can say that the psychosocial program, as a part of the project "Children in Need", has met its goal.

Psychological workshops as a way to help children in extreme situations

Mirsada Topalović & Emil Vlajić

Agency for Psychological Services “PsihoProfil”, Zaječar, Serbia and Montenegro

Aim

This paper presents preventive work with children that decreased the level of symptoms induced by war stress during the bombing in Yugoslavia, March-June 1999.

The purpose of this paper is to determine the effects of preventive work with children organised through psychological-creative workshops and sports games for children.

Hypotheses

We hypothesised that this type of continued work will decrease the level of present symptoms and prevent any new symptoms, and that the children will be able to express their creative potential in an appropriate way (by drawing, singing, playing a new game, telling jokes, stories). These hypotheses are based on personal experience of giving workshops for children (*Smile Keepers*, *Convention on Children’s Rights*, *Goodwill Classroom*).

Background

When Yugoslavia was bombed, the first few days in our town were the worst ones. People were afraid, some of them even panicked. All of this had an influence on children’s behaviour. People from Zaječar left their apartments and homes and went to the countryside thinking that the situation would be safer there. Soon the town was empty. Only a few children stayed in the town, and they had nowhere to go. They were not allowed to go out, and schools were closed. They were imprisoned in their houses. It was not a natural environment for children.

Treatment methodology

The Children’s Department of Serbia suggested that children spend time together and socialize, in order to prevent and decrease general tension. We started to work with the first group of children two weeks after the first bombing. The group was open to all. By July 1, 1999, we had worked with 53 children whose parents allowed them to leave the house during air raid alerts. We worked every day of the week except Sunday, for three to four hours.

Our workshops had three parts:

Part 1

This consisted of psychological workshops on different topics, first of all those related to bombing (how, why). Children wanted an explanation for everything that was happening and for information they heard at home.

The psychological workshops helped children to learn how to free themselves of tension, to express their inner fears and dreams, to reflect on them and to share them with others, to develop strategies for coping with negative feelings such as anger and hatred, and how to socialize with others and cope with misunderstandings.

Part 2

The second part involved playrooms. The children were able to choose which games they wanted to play, or they would make up new games. That was used as a relaxation technique. Making up new games was a very creative and enjoyable activity.

Part 3

The final part was dedicated to creative workshops where we tried to visualise all the themes from the psychological workshops. Children were separated in four groups according to their interests: painting, poetry reading, acting and singing. Every 10 to 15 days the children would present their work: exhibitions, plays and concerts were organised. All children participated in these creative workshops, even the ones that had thought they were not interested in anything. In these circumstances they were able to reach the peak of their productivity. The role of the psychological workshops was to initiate discussion of issues that had to be brought out into the open, and which were then expressed in the creative workshops.

Results: initial symptoms

Using systematic monitoring we noticed the following symptoms in the children:

- Fears: fear of death, fear of separation, especially fear that their father will not come back home, fear of closed rooms, fear of leaving the house, fear of starvation;
- Psychosomatic symptoms: hypertension, stomach pain at the sound of sirens, vomiting, headache;
- Changes in behaviour: swearing, pushing other children, threats, hyperactive behaviour, withdrawal, stuttering.

Results: effectiveness

The daily meetings and continuous workshops noticeably reduced expressed fears and symptoms. This three-part workshop proved to be a very efficient model that reduces present symptoms and prevents new symptoms in children in extreme situations.

Programs of psychosocial assistance for children with special needs and their parents after the war

Sulejman Hrnjica

Faculty of Philosophy, University of Belgrade, Serbia and Montenegro

Conceptual approach

This program of psychosocial assistance for children with special needs after the war and their parents is based on the Community-based Rehabilitation (CBR) model. This model has at its core a strategy that encourages the influence of psychosocial protective factors in the local community. Its aim is to develop the children's ability to solve problems and the ability of the family to cope with existential problems caused by their children's developmental difficulties in connection with new fears and disorientation caused by the bombing of Serbia in 1999. This approach attempts to develop local, institutional and non-institutional activities to assist the children and their families.

Basic hypotheses

- Psychosocial assistance will be most efficient if organised in a local community, that is, in the environment in which the children and their families live.
- This approach will lead to stable, long-term effects of the program and has a low economic cost.
- This program will be most successful if parents and children participate actively.
- The participation of professionals will provide additional motivation for parents and children.

Sample

The research was conducted between September, 1999 and June, 2000 at 17 locations in Belgrade. Workshops for parents and children were organised at the same time in all of those locations. We tested 340 children with special needs and the same number of their parents, mostly mothers.

Instruments

- Behaviour scales for observation of appropriate and dysfunctional activities of children and parents during workshops
- Assessment questionnaires for workshop moderators where they were able to evaluate different parts of the programs and to record the reactions of children and parents on the program
- Questionnaires for parents in which they were to describe the children's reactions to the program, and their impressions about the programs in which they took part

Procedure

The workshops for children were play activities to encourage different aspects of the children's development. Basic principles of these workshops were: experiential learning, exchange of ideas and knowledge with peers and adults, active participation, cooperation and positive motivation. The group rules were clearly defined and known to everybody. The workshop was moderated by two moderators who were both present all the time. The workshops for children had themes like *That is me, Ugly duck, My rights*, and *My heart*. During this program we were able to develop, as part of flexible framework, around 30 workshops. Besides these programs, we developed Music Workshops and Music Psychotherapy programs (only for one group of children).

As a part of our workshop for parents, we discussed some of the most important life problems that such families have, such as fear and ways to cope with that fear in children, maintaining self-esteem, and positive aspects of the children. These programs were moderated by child psychiatrists and psychologists. Interaction between moderators and parents was on a partnership basis.

Results

Since the information gathered did not allow sophisticated quantitative analysis, these results are presented here in a qualitative way:

Evaluation of workshop program for children

- According to the evaluation of moderators and parents, the majority of the children were highly motivated to participate in this program, and their activity was followed by positive emotional reactions;
- It was concluded that this program will in the future have to be better adapted to the type and level of developmental problems, sex and age of child;
- Demands placed upon the children were too high. The same goes for many activities that are developed as a part of certain workshops. Workshops used to last a long time, and the instructions were verbal and too long;
- We need to give more time to music, movement and activities that "burn" energy;
- The goals that were achieved with the most success were encouragement of social interaction, development of social skills and establishment of emotional stability. Goals that were harder to achieve were speech development (expressive and receptive) and adoption of new knowledge.

The results of the evaluation of the workshops made by parents were similar to the evaluation of the moderators for the children's program. The evaluations of observers (determined by SCF) were also very close to those already mentioned. The only less successful mark was given to the moderators' ability to react properly in certain (very rare) situations.

The same programs (without the participation of parents) were conducted in two closed institutions for children with special needs. Moderators of the children's work-

shop did their best, but it was much harder for them to activate such children. Children from families were more successful in all the important elements of the evaluation. However, it turned out that these programs do make sense in institutions, and that they successfully cope with the monotony that is typical of institutional environments. The Music Workshop programs were evaluated by parents and observers as particularly successful.

Evaluation of workshop programs for parents

The moderators of the workshop programs for parents agree that parents were motivated to actively participate in the selection of topics and in the discussion.

As it turned out, parents were not quite ready to speak about their vision of the problem, or to exchange experiences with other parents. As expected, parents with less education were not very active. A number of them started talking about their experiences and ways to deal with problems that are typical for parents with such children only after they were encouraged to do so by other parents and by the moderators.

The atmosphere of the workshop was characterised by highly prosocial tendencies (empathy, mutual understanding, tolerance, etc.).

In the opinion of the moderators, only a few parents (those that are capable of seeing the developmental potential of their child in a supportive family situation) will be able to apply ideas and solutions, especially those related to education and encouragement of child's development, in their own family.

Parents and SCF moderators agreed with the evaluations given by the workshop moderators.

Conclusion

The most important result of the programs for psychosocial help in crisis was the idea that parent associations can, with minimal material, organisation, and staff assistance, implement programs that encourage the development of their children and improve the quality of life for children and families through use of the CBR model, using opportunities that exist in local community. Some of the key positive effects of this program are: while following a child's activity during the program and his/hers reaction after the program, a parent becomes more aware of a child's ability; these experiences make the child aware of his/hers abilities.

This program of psychosocial assistance lasted a long time (eight months) but we managed more to identify problems rather than to actually solve them. However, it should be emphasised that these solutions are a very good basis for further actions.

Table of first authors

First Author	email	Institution	Address of institution
Adamović, Slavica	rivendel@EUnet.yu	Centre for Social Work, Temerin	St. dom "Novi B", Bulevar Despota Stefana 7, 21000 Novi Sad, Serbia and Montenegro
Babajić, Nurija		KMC Psychiatric Clinic, Tuzla	Psihijatrijska klinika Tuzla, 75000 Tuzla, Bosnia and Herzegovina
Babović, Nurka	medica@bih.net.ba	Medica, Zenica	Mokušnice10, 72000 Zenica, Bosnia and Herzegovina
Behrić, Zumreta	jupiter@bih.net.ba	J.U. Secondary School, Cazin	H. Mujezinovića S29, 77000 Cazin, Bosnia and Herzegovina
Bell, Pam	p.bell@worldonline.be	Free University of Brussels	Brussels, Belgium
Bursać, Duško	csrapa@sombor.com	Centre for Social Work, Apatin	Apatin, Serbia and Montenegro
Ceribašić-Ljubomirović, Nataša	imz@imh.org.yu	Institute for Mental Health, Belgrade	Palmoticeva 37, 11000 Beograd, Serbia and Montenegro
Daneš, Vera	emina_music@hotmail.com	Psychiatric Clinic, University Clinical Centre of Sarajevo	Bolnicka 25, 71000 Sarajevo, Bosnia and Herzegovina
Đapić, Renko	drenko6004@aol.com	Department of Psychology, Sarajevo	Filozofski fakultet, Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina
Đapo, Nermin	nermindj@bih.net.ba	Department of Psychology, Sarajevo	Filozofski fakultet, Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina
Duraković-Belko, Elvira	elfa@bih.net.ba	Department of Psychology, Sarajevo	Filozofski fakultet, Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina
Galloway, David	D.M.Galloway@durham.ac.uk	School of Education, University of Durham	Leazes Road, Durham DH1 1TA, UK
Gavranidou, Maria	Gavra@psy.uni-muenchen.de	Institute of Psychology, LM University, Munich	Leopoldstr. 13, 80802 Munich, Germany
Hanak, Nataša	nhanak@ian.org.yu	I.A.N. – International Aid Network, Belgrade	29. Novembra 47, 11 000 Beograd, Serbia and Montenegro
Hegić, Fuad	medica@bih.net.ba	Department of Education, Sarajevo	Filozofski fakultet, Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina
Hrnjica, Sulejman	shrnjica@EUnet.yu	Faculty of Philosophy, Belgrade	Filozofki fakultet, Čika Ljubina 16-18, 11 000 Beograd, Serbia and Montenegro
Husain, Arshad	LittleM@health.missouri.edu	University of Missouri, Columbia	Columbia, Missouri, USA
Imamović, Mediha	hni-sa@bih.net.ba	Healthnet International	Čekaluša 66, 71 000 Sarajevo, Bosnia and Herzegovina
Ispanović- Radojković, Veronika	imz@imh.org.yu, veronika@Eunet.yu	Institute for Mental Health, Belgrade	Palmoticeva 37, 11000 Beograd, Serbia and Montenegro

First Author	email	Institution	Address of institution
Janković, Josip	josip_jankovic@hotmail.com	Centre of Studies in Social Work, Zagreb	V. Nazora 51, 10 000 Zagreb, Croatia
Kapor-Stanulović, Nila	nila@eunet.yu	Department of Psychology, Novi Sad	Filozofski fakultet, ul. Stevana Musića br. 24, 21000 Novi Sad, Serbia and Montenegro
Karačić, Sanela		Institute for Special Education and Care for Children (Mjedenica), Sarajevo	Mjedenica 16, 71 000 Sarajevo, Bosnia and Herzegovina
Kočevska, Slađana	sladja73@yahoo.com	Health center, Zaječar	Rasadnički put bb, 19000 Zaječar, Serbia and Montenegro
Kondič, Ksenija	ksenijak@drenik.net	Department of Psychology, Belgrade	Filozofski fakultet, Čika Ljubina 16-18, 11000 Beograd, Serbia and Montenegro
Kučera, Andrea	andreakucera@hotmail.com brigitte.schuster@univie.ac.at	Department of Clinical Psychology, Institute for Psychology, University of Vienna	Universitätsstr. 7, 6. Stock, Wien A-1010, Austria
Kukić, Sandra	SandraK@crsbh.ba	SOS Kinderdorf, Sarajevo	Herman Meiner 1, Sarajevo, Bosnia and Herzegovina
Kuterovac Jagodić, Gordana	gordana.kuterovac@ffzg.hr	Department of Psychology, Zagreb	Filozofski fakultet, Ivana Lučića 3, 10000 Zagreb, Croatia
Kutlača, Milena	pasic@iol.it	Department of Psychology, Banja Luka	Filozofski fakultet, Bane Lazarević 1, 78000 Banja Luka, Bosnia and Herzegovina
Lipničević-Radić, Andreja	szskola@bih.net.ba	Vocational School, Zenica	Bilinišće, 72000 Zenica, Bosnia and Herzegovina
Marinković, Lada	ladum@neobee.net	Institute for Preventive Health of Children and Young People, Novi Sad	Lisinskog 1, 21131 Petrovaraždin, Serbia and Montenegro
Milosavljević, Branko	vturjaca@blic.net	Department of Psychology, Banja Luka	Filozofski fakultet, Bane Lazarević 1, 78000 Banja Luka, Bosnia and Herzegovina
Mooren, Trudy	T.Mooren@fss.uu.nl	Department Of Clinical Psychology, Utrecht University	PO Box 80140, 3508 TC Utrecht, Netherlands
Nikić Matović, Danica	licpo@ptt.yu	Polytechnic school, Požarevac	Jovana Serbanovica 5, 12000 Pozarevac, Serbia and Montenegro
Novković, Mirjana	hni-sa@bih.net.ba	Healthnet International	Čekaluša 66, 71 000 Sarajevo, Bosnia and Herzegovina
Osmanović, Arijana		Primary school 9 May, Sarajevo	Pazarić, 71 000 Sarajevo, Bosnia and Herzegovina
Pavlović, Slobodan	slavicap@bih.net.ba	KMC Psychiatric Clinic, Tuzla	Sarajevska 10/II, 75300 Lukavac, Bosnia and Herzegovina
Pernar, Mirjana	deancernecca@yahoo.com mirjana.pernar@ri.hinet.hr	Centre for Psychotrauma, Psychiatric Clinic, Rijeka	Rijeka, Croatia
Petrović, Vesna	vesnapet@eunet.yu	Department of Psychology, Novi Sad	Stevana Musića 24, 21000 Novi Sad, Serbia and Montenegro

First Author	email	Institution	Address of institution
Popović, Sabina	ctvmost@bih.net.ba	Centre for Torture Victims Sarajevo	Safet Bega Bašagića 30/I, 71000 Sarajevo, Bosnia and Herzegovina
Powell, Steve	stevepowell99@yahoo.com	Munich-BiH Psychology Program, Ludwig-Maximilians University of Munich and University of Sarajevo	Institut für Psychologie, Leopoldstr.13, D-80802 München, Germany
Radić, Rabija	sanin@bih.net.ba	JZU Health Centre, Centre for Mental Health, Tuzla	Slavka Micića 15, 75000 Tuzla, Bosnia and Herzegovina
Rošić, Fehim	jupiter@bih.net.ba	2. Secondary School, Cazin	H. Mujezinovića 25-A, 77220 Cazin, Bosnia and Herzegovina
Rosner, Rita	rosner@psy.uni-muenchen.de	Institute for Psychology, University of Munich	Institut für Psychologie, Leopoldstr.13, D-80802 München, Germany
Savić, Jovan	psiholog@inecco.net	Department of Psychology, Banja Luka	Filozofski fakultet, Bane Lazarević 1, 78000 Banja Luka, Bosnia and Herzegovina
Savjak, Nadežda	nsavjak@hotmail.com	Department of Psychology, Banja Luka	Filozofski fakultet, Bane Lazarević 1, 78000 Banja Luka, Bosnia and Herzegovina
Šehović, Mirha	sejlas10@hotmail.com	Faculty of Philosophy, Tuzla	Armije BiH 2, 75000 Tuzla, Bosnia and Herzegovina
Šestan, Džemal	dzemal.s@bih.net.ba	JZU Health Centre, Center for mental Health, Tuzla	G. Lazarevica 192 (stan 24), 75000 Tuzla, Bosnia and Herzegovina
Slodnjak, Vera	vera.slodnjak@guest.arnes.si	Counseling Centre for Children, Adolescents and Parents - WHO Collaborating Center	Gotska 18, 1000 Ljubljana, Slovenia
Smith, Patrick	p.smith@iop.kcl.ac.uk	Institute of Psychiatry, University of London	Camberwell, London, SE5 8AF, London, UK
Srna, Jelena	jsrna@EUnet.yu	Department of Psychology, Belgrade	Filozofski Fakultet, Čika Ljubina 18-20 11000 Beograd, Serbia and Montenegro
Stuvland, Rune	Rune.Stuvland@krisepsykologi.no	Center for Crisis Psychology, Oslo	Kr. Augustsgt. 12, Oslo N-0164, Norway
Tauber, Charles	ctprivate@altavista.com	Coalition for Work With Psychotrauma and Peace	Gundulićeva 18, 32000 Vukovar, Croatia
Tišinović, Svetlana	anci@panet.bits.net	Jovan J. Zmaj Primary School, Pančevo	Branka Anovica 5, 26000 Pancevo, Serbia and Montenegro
Topalović, Mirsada	vemil@ptt.yu	Agency for Psychological Services “PsihoProfil”, Zaječar	Svetozara Markovića 36/25, 19000 Zaječar, Serbia and Montenegro
Trebješanin, Žarko	bud@beotel.yu	Faculty of Special Education, Belgrade	Visokog Stevana 2, 11000 Beograd, Serbia and Montenegro
Yule, William	w.yule@iop.kcl.ac.uk	Institute of Psychiatry, University of London	de Crespigny Park, London SE5 8AF, UK

First Author	email	Institution	Address of institution
Zečić, Sadeta	sadetaz@zamjed.ba, zecics@hotmail.com	Faculty of Special Education, Tuzla and Institution for special children education “Mjedenica", Sarajevo	Mjedenica 16, 71 000 Sarajevo, Bosnia and Herzegovina
Zotović, Marija	zotovic@EUnet.yu	Department of Psychology, Novi Sad	Filozofski fakultet, Stevana Musića 24, 21000 Novi Sad, Serbia and Montenegro
Zvizdić, Sibela	sibelaz@bih.net.ba	Department of Psychology, Sarajevo	Filozofski fakultet, Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina

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