



The relationship between attitudes towards menarche and current attitudes towards menstruation of women: A comparative study¹

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Abstract

Purpose: The study was conducted to determine affecting factors and to investigate relationship between attitudes towards menarche and current attitudes towards menstruation of women and to compare characteristics of menarche and menstruation of women who were born and raised in the northeastern and western of Turkey.

Method and Materials: This descriptive and comparative study was participated totally 400 volunteer women. The data were collected using a questionnaire containing defined closed and open-ended questions.

Results: The study results showed that women living in Ordu province than women living in Aydın province expressed positive attitudes toward menarche, and the difference was found significant. Nevertheless, attitudes towards current menstruation were similar in both provinces. When the data of 400 women were evaluated together; women's attitudes towards menarche were compared with the current attitudes towards menstruation, and the difference was found statistically significant. Although attitudes of the women towards menarche varied according to where they lived, their current attitudes towards menstruation were similar. In addition, depending upon the province, there were statistically significant differences in women's age at menarche, recollection of menarche, and feelings of shame or happiness at menarche, source and adequacy of information about menstruation, and regularity of their menstrual cycle.

Conclusions: Early menstrual experiences may be related to menstrual experiences later in life and women's attitudes towards menstruation were not affected by geographical locations. In order to develop positive attitudes towards menarche and a woman's future years of menstrual cycles, it is very important that accurate and adequate information for young girls be provided before menarche.

Keywords: Menarche; current menstruation; attitude; woman.

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1. Introduction

Menarche and menstruation are significant physiological and developmental events in a woman's reproductive capacity and in her life in general (Tortumluoğlu, Özyazıcıoğlu, Tüfekçi, & Sezgin, 2004; Uskul, 2004). Menarche refers to the adolescent girl's first menstruation (Tang, Yeung, & Lee, 2003). It represents a concrete symbol in the distinct change from young girlhood to womanhood. Menarche usually occurs suddenly and without precise predictability between the ages 11 and 16 (Özdemir, Nazik, Pasinlioğlu, 2010; Taşkın, 2007). Typically, adolescent girls show negative reactions and feelings to their first menstrual period (Woods, Dery, & Most, 1982). They define their feelings with terms such as “scared”, “upset”, “worried” or “ashamed”. Studies of adult women's recollections of menarche often confirm these negative feelings (Woods, et al., 1982; Erbil, Orak, & Bektaş, 2010). Menstruation is defined as the “periodic vaginal discharge of bloody fluid from the nonpregnant uterus that occurs from the age of puberty to menopause” (Bobak, & Jensen, 1993). Menstruation is a normal physiological process, however, it may be viewed either positively or negatively in different cultures (Kalman, 2003; do Amaral, Hardly, & Hebling). Positive attitudes may prevail if the menses are viewed as a sign of femininity, fertility, youth, or purification of the body. On the other hand, negative perceptions associated with being vulnerable and susceptible to different illnesses can create feelings of disgust and shame (Kalman, 2003). Studies about menarche in Turkey showed that between 44% and 80% of women reacted to menarche with mostly negative feelings (Tortumluoğlu et al., 2004; Karadağ, Dinç, & Özcan, 1999; Taşçı, 2006; Erbil, & Türkcan, 2008).

Previous studies abroad have revealed that there is a relationship between attitudes towards menarche and emotional reactions and experiences of first menstruation and attitudes towards menstruation during adulthood (Koff, & Rierdan, 1996; McPherson, & Korfine, 2004). Other previous studies of menarche and menstruation in Turkey studied emotional reactions, the level of knowledge, menstrual symptoms and menstruation hygiene habits (Karadağ et al., 1999; Erbil, & Türkcan, 2008; Erdoğan, Işık, & Saruhan, 1991; Yazıcı, & Kobya, 1999; Musal, & Uçku, 1993). Results of these studies showed no specific findings regarding the relationship between women's current attitudes toward menstruation and the attitudes toward their first menstruation. Therefore, the findings of this study are important. This study explored the aforementioned relationship, if any, and further researched whether there was a difference between menarche and menstruation attitudes of women living in two different regions of Turkey. The results of this study will provide a resource in the health care services for midwives, nurses and other health care professionals. It is

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also hoped that these study results will stimulate and influence the development of future education and curriculum planning, as well as further research into this topic.

2. Purpose

The study was conducted to determine affecting factors and to investigate relationship between attitudes towards menarche and current attitudes towards menstruation of women and to compare characteristics of menarche and menstruation of women who were born and raised in Aydın and Ordu provinces in the northeastern and western of Turkey.

3. Method and Material

3.1. The place and time of the study

This research was made in Aydın and in Ordu provinces of Turkey between 15th February 2007- 25th May 2007

3.2. Population and sample selection

Two hundred-three women from Ordu province and 197 women from Aydın province of Turkey who volunteer with selection criteria were recruited to sample of this study with convenience method. Ordu province is located in the northeastern Black Sea region of Turkey, and aydın province is in the western Aegean region of Turkey. A convenience sample of women was recruited to this study Aydın province has a warmer climate than Ordu province.

The inclusion criteria for study participants were: the women had to be still menstruating; they had to be born and raised in Ordu and Aydın provinces in Turkey; and they had to be willing to take part in the study.

3.3. Type of study

The research was a descriptive and comparative study.

3.4. Data collection

Data were collected using a questionnaire prepared by the researchers that included questions regarding women's socio-demographic characteristics (1st-5th questions), their knowledge, attitudes and behaviors towards menarche, menstruation (6th-14th questions) and their current menstruation characteristics (15th-19th questions) (Tortumluoğlu et al., 2004; Karadağ et al., 1999; Koff, & Rierdan, 1996; McPherson, & Korfine, 2004; Yazıcı, & Kobya, 1999). The questionnaire was pilot-tested on 20 volunteer women and it was found acceptable. The first part of the questionnaire form was about their age, education level, occupation, income, and family type. The second part of the questionnaire form included their menarche age, recollection status of menarche

day, feelings at menarche, whether dysmenorrhea at menarche, attitude about menarche, source of information, information about menstruation before menarche and adequacy of information about menstruation. The third part of the form contained questions about the regularity of the current menstrual cycle, menstrual bleeding flow, attitude about present menstruation, whether dysmenorrhea is experienced with current menstruation and attitude towards current menstruation. All the postpartum women in the sample completed the questionnaire using face to face interview techniques. The questionnaire form filled out the questionnaire took approximately 10 to 15 minutes.

3.5. Limitations of the study

This study had some limitations. These limitations: sample of this study was recruited with convenience method; the findings are based on self-report; the questionnaire about menarche and menstruation attitudes and experiences were developed by the researchers of this study and after pilot test was performed. These might affect the results of the study.

3.6. The generalizability of the study

Due to limitations of this research and findings can generalize only to this sample.

3.7. Research ethics

The women were invited to participate in the study and researchers gave them all pertinent information before verbal consent was obtained. They were also advised that the study would pass through an ethical approval protocol and that they would not be paid for their participation in the study. The researchers guaranteed participants that their identities and answers would be kept confidential. This study was approved Health Directorate of the province, and the study conformed to the principles of the Declaration of Helsinki.

3.8. Evaluation of data

Descriptive statistics including frequency, percentage, mean, minimum, maximum, standard deviation were calculated. Differences were tested with Chi-square test and the t test. The Chi-square test and t test was used to compare characteristics and attitudes towards menarche and menstruation of women. The data were analyzed using the SPSS for Windows version 11.5. The significance level of the test was targeted at 0.05.

4. Results

Two hundred-three women from Ordu province and 197 women from Aydın province of Turkey agreed to take part in this study. The average age of participants was 30.8 ± 8.5 . The study participants ranged in age from 18 to 45 years. In this study, 95.3% of women had attended primary

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school and higher education, and 54.8% of them were housewives. In this group 72.3% of the women were living in a smaller family (see Table 1). The current average monthly income was 1044.0 ± 665.1 TL.

Table 1. Distribution of participants from Ordu and Aydın provinces (n=400)

Variables	Aydın province		Ordu province		Total	
	n	%	n	%	n	%
Education						
Illiterate	16	8.1	3	1.5	19	4.7
Primary school	72	36.5	46	22.7	118	29.5
Secondary school	43	21.8	40	19.7	83	20.8
High school	37	18.8	65	32.0	102	25.5
University	29	14.7	49	24.1	78	19.5
Occupation						
Clerck	39	19.8	55	27.1	94	23.5
Worker	32	16.2	22	10.8	54	13.5
Self-employed	12	6.1	21	10.3	33	8.2
Housewife	114	57.9	105	51.7	219	54.8
Family type						
Nuclear	150	76.1	139	68.5	289	72.3
Big	42	21.3	46	22.7	88	22.0
Big family in some times	5	2.5	18	8.9	23	5.7

The study results showed that 33% of women living in Ordu province and 16.3% of women in Aydın province expressed positive attitudes toward menarche, and the difference was found significant ($p=0.000$). 88.2% of women living in Ordu province and 93.4% of women in Aydın province expressed positive attitudes toward present menstruation. Nevertheless, attitudes towards current menstruation were similar in both provinces ($p=0.071$). While more women in Aydın province felt a sense of shame (60.8%) at menarche, a feeling of happiness at menarche (67.7%) was more common for women living in Ordu province. The findings concerning fear at menarche, the belief or thinking that menstruation is not really necessary, and women's ambivalent feelings were similar both in Ordu and in Aydın province. The rate of women who received information about menstruation before menarche was 86.8% in Aydın and 79.3% in Ordu, and the difference was significant ($p=0.046$). The first source of information about menstruation in both provinces was mothers. The information received about menstruation was reported as adequate by 74% of women living in Aydın province and 47.6% of women living in Ordu province (see Table 2).

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Table 2. Comparison of variables and distribution according to menarche and menstruation characteristics of participants from Aydın province and Ordu province (n=400)

Variables	Aydın province		Ordu province		Total		p
	n	%	n	%	n	%	
Attitude at menarche							
Positive	32	16.3	67	33.0	99	24.8	
Negative	165	83.7	136	67.0	301	75.3	0.000***
Feelings at menarche *							
Fear	111	52.9	99	47.1	210	52.5	0.129***
Shame	79	60.8	51	39.2	130	32.5	0.001***
Happiness	32	32.3	67	67.7	99	24.7	0.000***
Ambivalent feelings	11	73.3	4	26.7	15	3.7	0.057***
Unnecessary of menstruation	8	36.4	14	63.6	22	5.5	0.214***
Dysmenorrhea at menarche							
Yes	74	37.6	89	43.8	163	40.8	
No	123	62.4	114	56.2	237	59.2	0.222***
Information about menstruation before menarche							
Yes	171	86.8	161	79.3	332	83.0	
No	26	13.2	42	20.7	67	17.0	0.046***
Source of information about menstruation (n=337)**							
Mother	120	69.4	93	56.7	213	63.2	
Friend	30	17.3	57	34.8	87	25.8	
Teacher	12	6.9	4	2.4	16	4.7	
Mass media	8	4.6	2	1.2	10	3.0	0.000***
Other	3	1.7	8	4.9	11	3.3	
Adequacy of information about menstruation (n=337)**							
Yes	128	74.0	78	47.6	206	61.2	
No	21	12.1	29	17.7	50	14.8	
Partially	24	13.9	57	34.7	81	24.0	0.000***
Recollection of menarche							
Yes	93	47.2	141	69.5	234	58.5	
No	104	52.8	62	30.5	166	41.5	0.000***
Regularity of menstrual cycle							
Regular	76	38.6	145	71.4	221	55.2	
Irregular	121	61.4	58	28.6	179	44.8	0.000***
Attitude present menstruation							
Positive	184	93.4	179	88.2	363	90.8	
Negative	13	6.6	24	11.8	37	9.2	0.071***
Dysmenorrhea at current menstruation							
Yes	53	26.9	71	35.0	124	31.0	
No	144	73.1	132	65.0	276	69.0	0.81***
Menstrual bleeding flow							
Hypermenorrhea	24	12.2	30	14.8	54	13.5	
Normal	153	77.7	140	69.0	293	73.3	0.114***
Hypomenorrhea	20	10.1	33	16.2	53	13.2	
Menarche age of women (year)	12.94±1.28		13.30±1.32		13.13±1.31		0.008****

* Participants marked more than one choice, ** Percentages were taken over n = 337, *** χ^2 test, **** t test.

The rate of recollection of menarche among women living in Ordu province (69.5%) was higher than that for women living in Aydın province (47.2%). Although the ages of the women living in both provinces were similar, regularity of their menstrual cycles was found to be different ($p=0.000$). Women from Aydın province experienced menarche at an earlier age than women from Ordu province (respectively, 12.9 years and 13.3 years) and the difference was found significant (see Table 2).

This study compared the following variables of two provinces, and the differences were found statistically significant; attitudes towards menarche ($p=0.000$); feelings at menarche of shame ($p=0.001$) and happiness ($p=0.000$); information about menstruation before menarche ($p=0.046$); source of information about menstruation ($p=0.000$); information received before menarche about menstruation considered “adequate” ($p=0.000$); recollection of menarche ($p=0.000$) and regularity of menstrual cycles ($p=0.000$); and age at menarche ($p=0.008$). The present study compared the living province of woman with their feelings of fear, ambivalent emotions, views that menstruation is unnecessary, dysmenorrhea at menarche, attitude towards present menstruation, dysmenorrhea at present menstruation, menstrual bleeding type, and the differences were not found significant ($p>0.05$) (see Table 2).

The data of totally 400 women were evaluated and analyzed; 24.8% of the women had positive attitudes towards menarche, and 90.8% of them had positive attitudes towards their current menstruation. Women's attitudes towards menarche were compared with the current attitudes towards menstruation, and the difference was found statistically significant ($p=0.014$).

5. Discussion

Menarche is the most important biological event in the life of women and is a marker towards achieving maturity and the onset of reproductive capability for many adolescent females (Şenol, Gündüz, & Öztürk, 2010). Beliefs about menstruation are acquired at an early age, and these beliefs usually reflect the general cultural stereotypes about menstruation as a negative and symptom-laden phenomenon (Woods et al., 1982). Accurate and adequate information about menstruation is seen as an important factor in developing a young girl's positive response towards menarche and her subsequent menstrual cycles (Çıtak, & Terzioğlu, 2002).

In the study, the attitude towards menarche of women who received information about menstruation before experiencing menarche was found to be more positive. Women who were older at their first menstruation had a more positive attitude towards menarche, and the difference was found significant. Similar to previous studies the present study revealed that most of the

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women experienced negative emotions such as fear, shame, ambivalent feelings or the belief that menstruation is unnecessary (Tang et al., 2003; Erbil, & Türkcan, 2008; Chrisler, & Zittel, 1998). Only one-quarter of the women (24.8%) experienced menarche as a positive happening in their lives. The present study showed that the percentage of women who had obtained information about menstruation before menarche was 83%, however, just 61.2% of women thought that the information was sufficient. Other studies on this subject indicate that the percentages of women who had received information about menstruation before their first period ranged from 14.6% to 97.9% (Tortumluoğlu et al., 2004; Musal, & Uçku, 1993).

Tortumluoğlu et al. (2004) revealed that the information levels about menstruation before the menarche of young girls was very low in a rural area of the eastern part of Turkey (14.6%), and the findings of another study were similar to this study. We thought that this difference resulted from differences in culture and living in different regions of Turkey. Previous studies have reported that the main sources of information about menstruation were mothers, friends, schools and the media, but disseminating information to young girls about menstruation was not enough (Erbil et al., 2010; Erbil, & Türkcan, 2008; Koff, & Riardan, 1996). Previous studies have emphasized that women who are better prepared for the first menstruation showed less negative reactions to menarche, menstrual symptoms, and body image issues than women who were less well prepared (Koff, & Riardan, 1996; Çıtak, & Terzioğlu, 2002; Rierdan, Koff, & Stubbs, 1989). In accordance with the available literature, the present study found that at menarche many women experienced strong negative emotions. Unfortunately, the preparation of young girls for menarche and these new changes in their bodies and reproductive capacity is not adequate. One study emphasized that the later menstrual attitudes of women who had experienced early menstrual periods were negative. In fact, they were more negative than women with positive experiences at menarche, and the relationship was related to their health behaviors and body image issues (McPherson, & Korfine, 2004). Koff & Rierdan (1996) reported that early adolescent girls' premenarcheal expectations and postmenarcheal experiences were associated with longer-term menstrual experiences.

We found that there were differences in the women born and raised in Aydın or Ordu provinces in their attitudes towards menarche, but it did not affect their attitude towards their current menstruation status (see Table 2). Also, the average age at menarche for women living in Aydın province in the western of Turkey (12.9 ± 1.2 years) was one year younger than the mean age of menarche in women living Ordu province (13.3 ± 1.3 years) in northeastern Turkey, (see Table 2). We found the attitude towards menarche of women living in Ordu province to be more positive than those in Aydın province. Perhaps this was because the onset of menarche for women of Ordu

province came later than the women of Aydın province. The arrival of menarche for the women of Aydın province was accompanied more often by a sense of shame than women of Ordu province. At the same time, we discovered that women in Aydın province received more information before menarche than women in Ordu province. Nevertheless, mothers remained the primary source of information in both provinces. Although the women living in the two provinces were of similar age, the regularity of their menstrual cycles was significantly different. However, attitudes towards their current menstruation were relatively the same for the women of both Aydın and Ordu province. The age at which young girls reach menarche is known to be influenced by genetic factors, environmental conditions, body size and physique, socioeconomic variables, and level of education (Sharma, Talwar, & Sharma, 1988; Georgiadis, Mantzoros, Evagelopoulou, & Spentzos, 1997; Ersoy, Balkan, Günay, Onağ, & Egemen, 2004).

Studies in Turkey and abroad have reported the average age at menarche between 12 years and 13.9 years (Tortumluoğlu et al., 2004; Ersoy et al., 2004; Tavares, Haeffner, Barbieri, Bettiol, Barbieri, Souza, 2000; Mimoun, Le, Buhler, Costa, & Hosansky, 2001; Ayatollahi, Dowlatabadi, Ayatonahi et al., 2003 Bekar, & Güçsavaş, 1990). Aydın province has a warmer climate than Ordu province. The difference in the mean age at menarche between the two provinces is thought to be caused by differences in climate. The mean age at menarche of all women (13.1 ± 1.3) in this study was evaluated, and it was found to be similar to the current available literature (Tortumluoğlu et al., 2004; Tavares et al., 2000; Ayatollahi et al., 2003; Bekar, & Güçsavaş, 1990).

6. Conclusions and recommendations

In conclusion, we found that menarche experiences of women are associated with menstrual experiences later in life. Although attitudes of the women towards menarche varied according to where they lived, their current attitudes towards menstruation were similar. In addition, depending upon the province, there were variations in women's age at menarche, recollection of menarche and feelings of shame or happiness at that time, source and adequacy of information about menstruation, and regularity of their menstrual cycle.

Results suggest that early menstrual experiences may be related to menstrual experiences later in life. In order to develop positive attitudes towards menarche and a woman's future years of menstrual cycles, it is very important that accurate and adequate information for young girls be provided before menarche. Midwives, nurses and other health professionals fill a very important role in providing full and accurate information about menarche and menstruation to young girls

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who may become mothers of the future. This much-needed support can help develop a positive and healthy attitude towards this normal body function.

6.1. Usability of study results

It is hoped that the present study will encourage further research related to menstruation and women's reproductive health, psychological health and other health issues.

6.2. Acknowledgements

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