

Original Article

The Self-Care Training is Increasing Body Image Perception Self-Esteem and Self-Care Abilities in Pregnant Adolescents: A Pretest-Posttest Quasi-Experimental Study

Gulbeyaz Baran Durmaz, PhD

Assistant Professor, Dicle University Ataturk School of Health Sciences, Diyarbakır, Turkey

Fatma Guducu Tufekci, PhD

Associate Professor, Ataturk University Health Science Faculty, Erzurum, Turkey

Correspondence: Fatma Guducu Tufekci, Associate Professor, Ataturk University Health Science Faculty, Erzurum, Turkey. E-mail: fgtufekci@myynet.com**Abstract****Objective:** The purpose of the present study was to determine the influence of self-care training given to pregnant adolescents on self-care ability, self-esteem and body image.**Methodology:** The study was carried out as a pretest-posttest quasi-experimental model with 66 pregnant adolescents aged between 12 and 19 registered to 6 Family Health Centers between August 2012 and June 2013 in regions with a low socio-economic level in the central town of Diyarbakır. In order to collect the research data, the Personal Information Form, Self-care Agency Scale, Rosenberg Self-Esteem Scale and Body Image Scale were used. The pregnant adolescents were given self-care trainings and the Self-Care Booklet. The mean scores, percentages, t-test and correlations were used for the analyses of the data. Ethical principles adhered.**Results:** It was found out that the pregnant adolescents' perceptions of body image ($p < .001$), their self-esteem levels ($p < .01$) and their self-care abilities ($p < .001$) increased following the self-care training given.**Conclusions:** As a suggestion to be put forward depending on the findings obtained, in institutions where pregnant adolescents are observed it is important to organize programs for the purpose of developing pregnant adolescents' self-care levels from the pre-pregnancy period till the postnatal period, to maintain the sustainability of these programs and to spread these programs especially in country sides.**Key Words:** Body Image, Self-Esteem, Adolescent Pregnant, Self-Care**Introduction**

Adolescent marriage is an important public health problem caused by early marriage or early sexual relation (Workineh et al. 2015; Bhanji & Punjani 2014; Walker et al. 2013; Oner & Yapici 2010; Raj et al. 2009)

Adolescent pregnancy is described as those pregnancies taking place between 15 and 19 ages (WHO 2012). The worldwide fertility rate for the girls aged between 15 and 19 is averagely by 11%. It is 50% in Africa, 18% in Latin America, 2% in China. Yet, adolescent fertility rate in the developed countries should not be underestimated. Fertility rate in Japan was 4.6% during 1990s while today it has risen to 30.1% (WHO 2012; UNICEF 2012). In Thailand, the rate of pregnant adolescent girls is 25.9% and Bangladesh, Brazil, Democratic Republic of the

Congo, Utopia, India, Nigeria and America (nearly 50%) are the countries where the rate of pregnant adolescent girls has still been in rise (WHO 2012; UNCF 2012). Most of the adolescent pregnancies in the developed countries are extra marital, unintended and unplanned pregnancies (Areemit 2012).

Turkey is a highly populated with young individuals. According to the findings of the Turkish Population and Health Survey; 21.6% of the population is composed of adolescents and 8-12% of pregnancies take place in adolescent period. Adolescent pregnancy occurs most often in Eastern and South-Eastern regions of Turkey (Demirgoz & Canbulat 2008; TNSA 2008). In a study conducted; frequency of early marriage in Diyarbakır province of Turkey was found to be by 42.4% (Acemoglu et al. 2005). In another study done in Mardin province of Turkey;

frequency of early marriage was found to be 56.1% (Ertem et al. 2008). It is stated that 36% of 20-24 age women was married before 18 ages all over the world (UNICEF 2006). It is detected that 15-24 age women was married before 18 age, 29% in Latin America and Caribbean, 48% in South Asia, 42-60% in Africa, (IPPF 2006). This rate is 50% in Yemen and Palestine (UNICEF 2005), 54% in Afghanistan, 51% in Bangladesh, 40-60% in India (UNICEF 2001).

In rural areas located in the middle regions and eastern regions of Turkey and in some cities; it is considered normal for the girls to give up education at the age of 15 or earlier and to wait for their 'kısmet (the one to be married; potential husband)' at their fathers' home without knowing that they have the right to refuse the man selected by parents as husband. Parents living there consider marriage -and thereby leaving their daughters to the protection of a man- as a way to protect their daughters against sexual assaults and against other undesired sexual attraction modes and thus marriage serves as a shield for the protection of family honor or as a way to prolong the fertility age (UNICEF 2012).

The economic problems are among the reasons that encourage early marriages (UNICEF2005; Hervish & Feldman-Jacobs 2011; Fussell & Palloni 2004). Poor families are reducing marrying their expenses, marrying their daughters at early age. At the same time, they prefer bride price for increasing the family income (UNICEF 2001; Otoo-Oyortey & Pobi 2003; Hervish & Feldman-Jacobs 2011). 17.6% of the marriages are early marriages because parents can demand "bride price". The rate of the marriages for bride price is 24% in rural regions (UNICEF 2012). The rates of the marriages for bride price are 12-29% in Turkey, 46-98% in Uganda, 9-79% in China, 79-93% in Thailand, 53% in Taiwan, 93% in Egypt, 84% in Syria, and 96% in Zaire (Anderson 2007).

Each pregnancy is a risky period even for the healthy women. Pregnancy becomes more problematic among those whose personality and emotional life is ruined and who are poor and physically and psychologically child (Gozuyilmaz & Baran 2011; Gumus et al. 2011). The aim of nursing is to overcome the limitations of human beings, to help individuals perform their own self-care and to enable them to perform

and to manage their own self-care thanks to appropriate nursing trainings and counseling—including their families (Orem 2001).

In the pre-study phase of the study, it was seen that rate of adolescent pregnancy in our country was high and these pregnancies were related to early marriage, socio-economic status and low educational status. As a result; although there are studies on the rate and reasons of adolescent pregnancy in Turkey (Oner & Yapici 2010; Demirgoz & Canbulat 2008; Sen & Kavlak 2011); no study on self-care, self-esteem and body-image of adolescent pregnant women was encountered.

The current study was conducted in order to determine the effect of self-care training provided to the adolescent pregnant women upon self-care agency, self-esteem and body-image.

Hypotheses of the Study:

H₁. Self-care training provided to the adolescent pregnant women enhances self-care agency.

H₂. Self-care training provided to the adolescent pregnant women enhances body-image perception positively.

H₃. Self-care training provided to the adolescent pregnant women enhances self-esteem.

Methodology

Design

The study was quasi-experimentally carried out in pre-test and post test design.

The Place and Time

The study was undertaken in six family health centers (FHC) selected by lot from 12 FHCs which were located in six districts with low socio-economic status in Diyarbakır city center between August 2012 and June 2013. The study was conducted with adolescent pregnant women aged between 12 and 19 who were registered to household-registration form of FHCs.

Diyarbakır is located in the middle of South-East Anatolian Region and is surrounded by South-East Taurus Mounts. It is 15.355 square meters and has got a population of 1.364.209. Its economy is based on petroleum industry, tourism, agriculture and livestock. Petroleum is an important underground wealth in Diyarbakır. Diyarbakır, surrounded by enormous walls since antique ages, is situated around upper basin of

Tigris River and is a junction for the historical and commercial roads leading to Anatolia, Iran and Mesopotamia.

The Population and Sample

The population of the study was composed of pregnant adolescent women (aged between 12 and 19) who were open to communication and collaboration, were in the first trimester of pregnancy and who came to the above-mentioned six family health centers between August 2012 and April 2013.

All of the adolescent pregnant women who were registered to the FHCs were included in the study. It was detected that there were 72 adolescent women who came to FHCs and were in the first trimester of pregnancy. However; 2 adolescent pregnant women who did not accept to participate in the study and 4 adolescent pregnant women who had health problems were excluded from the study and the study was initiated with 66 adolescent pregnant women.

Data Collection Tools

For the data collection; “Personal Information Form” (PIF), “Self Care Agency Scale” (SCAS), “Rosenberg Self Esteem Scale” (RSES) and “Body Image Scale” (BIS) were used.

In PIF designed by the researcher in line with the literature (Gumus et al. 2011), there were 21 questions on the characteristics of the pregnant women and their husbands, whether or not it was a planned marriage and characteristics of pregnancy.

SCAS items have a 5-point Likert format and the interviewees are asked to answer the statements of the scale. The lowest score is 35; which indicates the weakest degree of exercise of self-care while the highest score is 140; which indicates the highest degree of exercise of self-care (Nahcivan 1999). Scale’s Cronbach alpha coefficient in the study was found as .84.

RSES is consisted of multiple choice 63 questions. The lowest score is 0 while the highest score is 30. A score between 15 and 25 is assessed as normal level of self-esteem whereas a score ≤ 15 is assessed as lower level of self-esteem. Scale’s Cronbach alpha coefficient in the study was found as .58.

BIS contains 40 items and each item focuses on an organ or a part of the body (arm, leg, face

etc.) or their functions (e.g. level of sexual functioning). Total score of the scale ranges from 40 and 200. Higher scores indicate a higher level of satisfaction (Colak 2012). Scale’s Cronbach alpha coefficient in the study was found as .94.

Self Care Training Manual is a training manual book titled as “Your improvement and health is equivalent to your baby’s” and has been designed in line with literature and based on Orem’s theory and contains information about self-care of the adolescent pregnant women so that they can continue their self-care.

In the contents of the manual book, there is information on such issues as significance of self-care, self-care agency, self-care needs (universal self-care needs; air, water and nutritions, excretion, movements and rest, loneliness and social interaction, threats to life and welfare, being normal, developmental self-care needs), self-care needs in case of deviation from health and inability of self-care.

Self-care training manual book was transformed into Power Point Presentation and was presented to the adolescent pregnant women.

Data Collection

First; addresses and telephone numbers were obtained using the registration documents of the adolescent pregnant women who were in the first trimester of pregnancy at the family health centers. After calling; they were informed of the aim of the study and the training to be provided.

Appointments were made to pay home visits for those who accepted to participate in the study and met the inclusion criteria and home visits were made at the end of first trimester. During the first interview; personal information form, SCAS, RSES and BIS were administered. After the administration of the scales; self-care training was provided to the adolescent pregnant women by the researcher through presentation and question-answer technique and they were given the manual book titled as “Your improvement and health is equivalent to your baby’s”. Also; the researcher left them a phone number so that they could contact whenever they needed. In order to reinforce the training, other two visits were made for the adolescent pregnant women at the end of the second trimester and in the middle of the third trimester. In the visit made in middle of the third trimester; SCAS, RSES and BIS were

administered for the final measurements after reinforcement training.

Training

In the study; it was aimed that self-care agency, self-esteem and body-image of the pregnant adolescent women would be increased within 4 and half months with the self-care training provided through the face to face interviews (made three times), phone calls (made at least once), individual teaching activities, presentations, question-answer techniques and training manual book.

Data Analysis

In evaluation of the data; determination of the data relating socio-demographic characteristics and obstetric characteristics was performed with percentages. In the comparison of average scores of self-care, self-esteem and body-image obtained from pre-test and post-test; t-test was used.

Ethics of the study

Legal permissions of the institutions were obtained to conduct the study and ethical approval was obtained from the Ethical Council of Health Sciences Institute of Atatürk University. The related ethical principles - "Principle of Informed Consent", "Principle of Voluntariness" and "Principle of Confidentiality"- were followed because use of human subjects required protection of individual rights.

Results

In the study, it was found that the average age of adolescent pregnant women was 17.91 ± 1.11

years and between 16-19 ages. It was discovered that all of the adolescent pregnant women were housewives, 40.9% were secondary school graduates, 59.2% had green cards (a health card for uninsured people in Turkey), 68.2% lived in a large families, income and expenses was balanced at 51.5%, 59.1% had civil marriage, 34.8% (n=23) was a relative of the husband, 24.2% got married contrary to their will and 45.5% regarded their relations with husbands as very satisfactory.

In the study, it was detected that adolescent pregnant's levels of self-care agency increased after self-care training, and difference between pre-test (83.26 ± 19.42) and post-test (96.15 ± 15.29) self-care levels was statistically significant ($p < 0.001$). Namely, the self-care training given to adolescent pregnant increased the self-care agency (Table 1).

It was found that adolescent pregnant's levels of self-esteem increased after self-care training, and difference between pre-test (18.74 ± 3.88) and post-test (20.86 ± 4.66) self-esteem levels was statistically significant ($p < 0.01$). In the same way, the self-care training given to adolescent pregnant increased the self-esteem level (Table 2).

It was determined that adolescent pregnant's body-image perception increased after self-care training, and difference between pre-test (123.12 ± 31.13) and post-test (152.77 ± 24.44) body-image perception was statistically significant ($p < 0.01$). Still, the self-care training given to adolescent pregnant increased the body-image perception (Table 3).

Table 1: SCAS's Pretest-Posttest Comparison in Adolescent Pregnant Women, (n=66)

SCAS	Min-Maks.	X $\pm$ SD	t	p
Pretest	32-129	83.26 ± 19.42	4.232	.000
Posttest	57- 127	96.15 ± 15.29		

Table 2: RSES's Pretest-Posttest Comparison in Adolescent Pregnant Women, (n=66)

RSES	Min-Maks.	X ± SD	t	p
Pretest	12-29	18.74± 3.88	3.190	.002
Posttest	14-29	20.86±4.66		

Table 3: BIS's Pretest-Posttest Comparison in Adolescent Pregnant Women, (n=66)

BIS	Min-Maks.	X ± SD	t	p
Pretest	48-175	123.12±31.138	6.441	.000
Posttest	84-188	152.77±24.447		

Discussion

In the study; it was noted that self-care agency of adolescent pregnant women went up after self-care training and the difference between self-care agency levels measured before the training and those levels after the training was found to be significant (Table 1). This result supported the hypothesis H₁. In national and international literature; it was seen that there was just one study in which the effect of nursing intervention provided to increase self-care agency of adolescent pregnant women was tested. In another study; the effect of the training given to the adolescent mothers upon self-confidence and self-care was examined and the difference between self-care agency levels measured before the training and those levels after the training was found to be insignificant (Kalpal 2006). This result did not concur with our result. In a study in which self-care agency of adolescent pregnant women, (Aslan 2001) their socio-demographic characteristics, self-care agency and the correlation with the quality of life were questioned; it was found out that self-care levels of the pregnant women aged ≤19 (Altıparmak 2006) were similar to those levels obtained in our study before the training. Besides; in two descriptive studies (Yilmaz & Beji 2010; ErYilmaz et al. 1999) were similar to the self-care levels demonstrated by the adolescent pregnant women in our study after the training. These results are important in the sense that they have proved the necessity to provide self-care

supports and nursing interventions for adolescent pregnant women.

In the study; it was observed that self-esteem of adolescent pregnant women increased after self-care training and the difference between self-esteem levels measured before the training and those levels after the training was significant (Table 2). This result supported the hypothesis H₂. In literature, no study on the effect of self-care training upon self-esteem was encountered. In a study conducted in Turkey in which the correlation between self-esteem during pregnancy and body-image was studied; it was noted that pregnant women whose marriage age was lower showed lower levels of self-esteem (Gumus et al. 2011). This result was in agreement with our result. Self-esteem is a term conceptualized as a “social vaccination” (Favara 2013). Although giving birth and becoming mother are important characteristics of a woman; physical, psychological and social changes undergone during pregnancy may affect physical and psychological health of women and may prevent pregnancy being experienced in a healthy way (Gumus et al. 2011). It was emphasized that women's self-esteem may reduce owing to these changes occurring during pregnancy (Goodwin et al. 2000). That the adolescent who are in quest of establishing identity and independence triggered by the characteristics of the adolescence period must endure pregnancy with some physical and psychological changes produces risks in terms of

self-esteem; thus which makes it compulsory to support these women.

In the study; it was understood that body-image perceptions of adolescent pregnant women went up after self-care training and the difference between body-image perception levels measured before the training and those levels after the training was found to be significant (Table 3). This result supported the hypothesis H3. In a study done in Ankara in which body-images of the married adolescents were studied in terms of some variables; it was seen that body-image perception levels of pregnant adolescent women were found to be higher than body-image perception levels of pregnant adolescent women in our study both before the training and after the training (GozuYilmaz & Baran 2011). These results may have been caused by regional differences. In a study of adult pregnant women, it was explored that as the age of first pregnancy decreased so did body-image (Ozorhon 2012). This result concurred with our result in relation with body-image perception levels obtained before training. In another study; adult pregnant women stated that their body-images were deteriorated, they considered themselves bigger than they actually were or partners found them ugly (Olsson et al. 2005). The changes occurring during pregnancy may cause the women to perceive they different, unable, bulky, awkward, ugly and unattractive. As a result of these changes; body-image of the women may be affected negatively (Goodwin et al. 2000). We were of the opinion that women should accordingly be supported.

Limitations

In the study; only adolescent pregnant women were studied because a training setting in which other family members participated could not be established. Therefore; the results of the study were generalizable only to the participant adolescent pregnant women.

Conclusion

It was seen that self-care agency, self-esteem and body-image levels of the adolescent pregnant women increased significantly after the self-care training.

In order to prevent adolescent marriages and pregnancy; it may be recommended that social projects and policies should be designed; programs whereby self-care, self-esteem and

body-images are improved and increased among all of the family members through family-centered care practices -beginning from pre-pregnancy period to post-partum period- should be established, continued and expanded in rural regions.

References

- Acemoglu H, Ceylan A, Saka G & Ertem M. (2005) Early marriage in Diyarbakır. *Journal of Family and Society* 2: 115–121.
- Altıparmak S. (2006) The relationship between quality of life and self-care agency in pregnant. *TAF Preventive Medicine Bulletin* 6: 416-423.
- Anderson S. (2007) The economics of dowry and brideprice. *Journal of Economic Perspectives* 21,4: 151–174
- Areemit R, Thinkhamrop J, Kosuwon P, Kiatchoosakun P, Sutra S & Thepsuthammarat K. (2012) Adolescent pregnancy: Thailand's national agenda. *Journal of the Medical Association of Thailand* 7: 134-142.
- Aslan BD. (2001) The investigations of the self-care agency in the adolescence pregnancy. Health Sciences Institute, Nursing Department Program. Master Thesis, Selcuk University.
- Bhanji SM, Punjani NS (2014) Determinants of Child (Early) Marriages among Young Girls- A Public Health Issue. *J Women's Health Care* 3: 161. doi:10.4172/2167-0420.1000161
- Demirgoz M, Canbulat N. (2008) Adolescent pregnancy. *Journal of Medical Sciences of Turkish Clinics* 6: 947–952.
- Ertem M, Saka G, Ceylan A, Değer V & Çiftçi S. (2008) The factors associated with adolescent marriages and outcomes of adolescent pregnancies in Mardin Turkey. *Journal of Comparative Family Studies* 3: 229-238.
- ErYilmaz G, Erci B & Engin R. (1999) The effect of the number of pregnancy on self-care power. *Anatolia Nursing and Health Sciences* 2: 86-88.
- Favara M. Is self-esteem a "double edged sword"? Self-esteem and the onset of adolescent sexual activity. IZA Discussion Paper No. 7171. Accessed May 8, 2013.
- Fussell E & Palloni A. (2004) Persistent marriage regimes in changing times. *Journal of Marriage and Family* 6:1198-1210.
- Goodwin A, Astbury J & McMeeken J. (2000) Body image and psychosocial well-being in pregnancy: a comparison exercisers and non-exercisers. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 40: 442–447.
- GozuYilmaz A & Baran G. (2011) Body image in married adolescents according to some variables. The 2011 Barcelona European Academic Conference 1: 890–900.

- Gumus AB, Çevik N, Hataf SH. (2011) Characteristics associated with self-esteem and body image in pregnancy. *Anatolian Journal of Clinical Investigation* 1: 7-14.
- TNSA (2008) Turkey population and health survey. Institute of Population Studies of Hacettepe University. <http://www.hips.hacettepe.edu.tr/tnsa2008/>. Accessed May 11, 2012.
- Hervish and Feldman-Jacobs. (2011) "Who Speaks For Me", Population Reference Bureau Policy Brief. International Planned Parenthood Federation (Ippf), The Forum on Marriage and the Rights of Women and Girls ve United Nations for Population Association
- International planned parenthood federation –IPPF. (2006) The forum on marriage and the rights of women and girls. Ending child marriage-a guide for global policy action 2006. http://www.unfpa.org/upload/lib_pub_file/662_filename_endchildmarriage.pdf (erişim 1.8.2012)
- Kalpal B. (2006) The research of the effect of the education given to the strength of their self-confidence and self-care. Health Sciences Institute, Nursing Department Program. Master Thesis, Izmir: Ege University, 2006
- Nahcivan N. (1999) Effect of family environment and self-care agency in healthy youth. *Florence Nightingale Journal of Nursing* 45: 49-60
- Olsson A, Lundqvist M, Faxelid E & Nissen E. (2005) Women's thoughts about sexual life after childbirth: focus group discussions with women after childbirth. *Scandinavian Journal of Caring Sciences* 19: 381-387.
- Orem D.E. Self-care Deficit Theory of Nursing: Concepts and Applications, 7 nd edition. USA: Dennis CM Mosby-Year Book Inc, 2001: 99-135
- Otoo-Oyortey and Pobi. (2003) "Early Marriage and Poverty: Exploring Links and Key Policy Issues", *Gender and Development* 11(2): 42-51.
- Oner S. & Yapici G. (2010) Glance at adolescent pregnancies. *Turkish Journal of Public Health* 1: 130-140.
- Ozorhon EY & Pasinlioglu T. (2012) Determination of pregnant women During pregnancy *Maltepe Medical Journal* 4:16-20
- Raj A, Saggurti N, Balaiah D, Silverman JG (2009) Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study. *Lancet* 373: 1883-1889.
- T.C Basbakanlik (2006); Family and Social Research General Directorate of Family Structure Research Ankara 2010: 21-41. http://www.athgm.gov.tr/upload/athgm.gov.tr/mce/eskisite/files/kutuphane_60_Aile_Yapisi_Arastirmasi.pdf (accessed 16.8.2012)
- Sen S & Kavlak O. (2011) Child Brides: Approach to Early Marriage and Adolescent Pregnancies. *Journal of Family and Society* 7: 35-43.
- The United Nations (2011) Children's Fund. 2011. <http://panel.unicef.org.tr/vera/app/var/files/s/i/sitan-tur.pdf>. Accessed May 16, 2012.
- United Nations (2006) Children's Fund, the State of the World's Children 2006, UNICEF. http://www.childinfo.org/files/The_State_of_the_Worlds_Children_2006.pdf (accessed 7.8.2012)
- United Nations (2005) Children's Fund, Early Marriage: A harmful traditional practice: A statistical exploration, UNICEF, New York, 2005: 12-13. http://www.unicef.org/publications/files/Early_Marriage_12.lo.pdf (accessed 1.8.2012)
- United Nations Children's Fund (UNICEF). (2005) Early marriage: A harmful traditional practice. Available at: http://www.unicef.org/publications/files/Early_Marriage_12.lo.pdf; 2005. Accessed 05.05.2016.
- United Nations (2001) Children's Fund Early marriage: Child spouses. Florence, Italy: UNICEF inndig, 2001. <http://www.unicef-irc.org/publications/pdf/digest7e.pdf>
- Walker JA, Mukisa S, Hashim Y, Ismail H (2013) Mapping Early Marriage in West Africa: a scan of trends, interventions, what works, best practices and the way forward Lagos: Ford Foundation, West Africa Office.
- World Health Organization. Adolescent pregnancy. Issues in adolescent health and development. Department of child and adolescent health and development. http://www.who.int/maternal_child_adolescent/topics/maternal/adolescent_pregnancy/en/index.html. Accessed May 5, 2012.
- Workineh S, Dejen G, Kibretb G, Degu G (2015) Determinants Of Early Marriage Among Female Children In Sinan District, Northwest Ethiopia, *Health Science Journal* 9;6(1): 1-7
- Yilmaz SD & Beji NK. (2010) Evaluation of self care agency in pregnancy. *Journal of General Medical* 20: 137-141

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.