

EFFECT OF GROUP COUNSELING ON ADOLESCENT GIRLS IN IMPROVING KNOWLEDGE AND PRACTICE OF MENSTRUAL HYGIENE IN WELFARE BOARDING CENTERS

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ABSTRACT

Objective: To determine the effect of group counseling on improving knowledge and practice of menstrual hygiene among adolescent girls living in welfare boarding centers.

Methodology: This was a quasi-experimental study. All adolescent girls, 12-19 years of age and residents of the boarding centers were evaluated. The study was performed between October 2015 and March 2016 at two welfare boarding centers in Hamadan City, Iran. An educational intervention program was developed having four consultation sessions of 45-60 minutes. The training sessions were held every week in the form of 15 subject groups. Participants were assessed before the intervention (pre-test), immediately after counseling sessions and one month after the intervention (post-test) for examining the Knowledge and behavior and endurance of the given trainings. The data were analyzed using SPSS version 20.

Results: Thirty participants were enrolled in this research. The mean age of the participants was 16 ± 2.08 years. The average age of menarche was 12.8 ± 0.3 years. Thirteen (43.3%) participants had a feeling of fear and worry in their first menarche. Most people (80%) received information on menstrual health through friends and classmates. There were considerable differences between the scores of knowledge and practice in the girls before intervention, immediately and one month after the intervention ($p < 0.001$).

Conclusion: Adolescents lacked appropriate knowledge and practices about menstruation in the pre-program phase. After implementation of the program, considerable improvements were noticed in adolescent girls' knowledge and practice.

Key Words: Group counseling, Menstruation, Adolescents, Welfare boarding centers

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INTRODUCTION

Adolescence is taken from Latin word *adolescere*, meaning "to grow up". According to the definition of WHO, adolescence is the period in humans from ages 10 to 19 years that occurs after childhood and before adulthood. Adolescent girls are vulnerable group in terms of their social status and in relation to health¹. Due to socio-cultural barriers, adolescent girls have lack of knowledge about reproductive health including menstruation^{2,3}. Adolescents constitute more than 1.2 billion worldwide⁴. According to the statistics for the year 2011, 17% of the Iranian population are adolescents aged between 10 to 19 years⁵.

Menstruation is one of the normal physiological processes. The onset of menstruation is one of the important changes that happen during adolescent period⁶. During this phase, adolescent girls face undue anxiety and tension due to lack of awareness regarding these changes^{7,8}. Though menstruation is a normal process but there are a lot of misconceptions about it. Hygienic practices during menstruation are of great importance, the lack of which increments the susceptibility of an individual to reproductive tract infections. Good knowledge and safe practices about menstruation leads to good reproductive health^{9,10}. Studies have shown that less than half of adolescent girls before achieving men-

arche are aware of menstruation^{3,11}. Several researchers had shown that satisfactory hygiene practices were pursued by less than half of adolescent girls^{3,12,13}.

Awareness regarding proper menstrual hygiene practices is essential to debarment of reproductive tract infections (RTIs). Poor hygiene and menstruation-related practices increment vulnerability to RTIs. Studies have shown that occurrence of RTIs is significantly associated with poor menstrual hygiene^{3,14}. Menstrual hygiene is the personal hygiene during menstruation. It consists of bathing daily for comfort, using clean, dry absorbent material and disposal of used pads/material and to feel fresh, keep perineal area clean from anterior to posterior^{15,16}. Menstrual hygiene management or practices related to menstrual hygiene during periods is a serious problem for adolescent girls in low and middle income countries. The sustainable development goals³⁻⁶ are addressed directly or indirectly by poor menstrual hygiene, the achievement of the same is indeed very crucial for the overall development of these young adolescents and the nation at large¹⁷.

Today, more than eight million children around the world live in welfare boarding centers¹⁸. The family environment is the most suitable place for the formation and establishment of health behaviors, while girls living in welfare boarding centers do not have such conditions. Group counseling is an effective method for the success of reproductive health and menstrual health programs and promotion of health¹⁹. The studies on menstrual health behaviors of girls covered by welfare boarding centers vs. girls covered by family showed that there were significant differences between the two groups regarding menstrual health behaviors; the score of girls covered by welfare boarding centers being less than the other group²⁰. Another study that looked at the health behaviors (nutrition, rest, exercise, personal hygiene) of girls covered by welfare boarding centers vs. girls covered by family showed similar results²¹.

Usually, during menstruation and pubescence, most of adolescent girls have lack of knowledge and hygienic practice. Moreover, adolescent girls often are unwilling to speak about this topic with their care-providers. So, girls should be notified about "menstruation and healthy menstrual practices" through program of health education in welfare boarding centers. Information about their level of knowledge and practices are applicable for planning programs. The aim of this study was to improve level of knowledge and practices about menstrual hygiene among adolescent girls at welfare boarding centers through: 1) studying the level of knowledge and practices regarding menstrual hygiene among the samples; 2) evaluating, performing and planning the effect of health education program about menstrual hygiene in the target community.

METHODOLOGY

This quasi-experimental research was performed for investigating the influence of group counseling on improving knowledge and practice of menstrual hygiene among adolescent girls living in welfare boarding center, Hamadan City in west of Iran. The study was performed between October 2015 and March 2016 at two welfare boarding centers in Hamadan City. The subjects consisted of all adolescent girls living in the aforementioned welfare boarding center in Hamadan City. The total sample was 30 girls, aged 12-19 years. Due to limitations in the sample size, the study was done as a single group. Inclusion criteria were age of 12-19 years; the occurrence of menarche; lack of physical or mental disability; satisfaction of people to participate in the study; no history of psychological illness and non-use of psychological drugs. Exclusion criteria were unwillingness to continue cooperation; absence from more than one session; and making important psychological and emotional changes. Teenage girls who participated in the study were asked to fill the informed consent and all the collected data were confidential and used only for the purpose of the study. Girls were assured that they can leave the study any time. Ethical Committee of Hamadan University of Medical Sciences approved this study (with number: IR.UMSHA.REC. 1395.18). The trial was registered with the Iranian registry of clinical trials (IRCT201707016888N17).

An educational intervention program was developed in a simple Persian language. The intervention included four consultation sessions of 45-60 minutes. The training sessions were held every week in the form of 15 subject groups. In every session, a mixture of speech, group debate, questions and answers were done. Furthermore, at the end of the last session, educational pamphlets were given to the participants. Participants were assessed before the intervention (pre-test), immediately after counseling sessions and one month after the intervention (post-test) for examining the Knowledge and behavior and endurance of the given trainings.

The first part of the questionnaire was associated with demographic questions for example age, educational level, age of entry into welfare boarding centers, length of stay in the center, people who visit them, leave intervals, age of menarche and how to obtain information about menstrual health. The second and third part of the questionnaires were used for knowledge and practice. To measure the knowledge, 15 questions were used ($\alpha = 0.80$) and to measure the practice, 20 questions were used ($\alpha = 0.83$). In the awareness questionnaire, one score was awarded for the correct answer and zero score was awarded for any wrong answer. The Menstrual Health Performance Questionnaire (MHPQ)

were designed as 4 option Likert scale from always= 1 to never= 4. The scores were calculated as cumulative frequency. Analysis of the data was performed by SPSS version 20. Descriptive statistics were used as percentages, mean and standard deviation and expressed as frequency tables. The Spearman Colomograph test was used to confirm the normalization of data and repeated measurement test was used to compare the data. P value <0.05 was set as significance level.

RESULTS

Thirty participants were enrolled in this research. Table 1 showed demographic and medical characteristics of contributors. The mean age of the participants was

16 ±2.08 years. The average age of menarche was 12.8 ±0.3 years. Thirteen (43.3%) participants had a feeling of fear and worry in their first menarche. Twenty-four (56.66%) had previously received information on menstrual health. Most people (80%) received information on menstrual health through friends and classmates. The least people (7.3%) had received information from health staff.

The outcomes on repeated measures indicated considerable differences between the scores of knowledge and practice in the girls before intervention, immediately and one month after the intervention ($p < 0.001$), (Table 2).

Table 1: Baseline features and clinical information of the research population

	Characteristics	Number (Percentage)
Age (Years)	12-13.9	4 (13.4)
	14-15.9	9 (30)
	16-17.9	10 (33.33)
	≥18	7 (23.3)
Age of Menarche (Years)	7-9	0 (0)
	10-13	25 (83.3)
	14-16	5 (16.7)
	17-19	0 (0)
Education	The First Three Years of High School	14 (46.66)
	The Second Three Years of High School	16 (54.44)
Feeling in the First Menstruation	Fear and Concern	13 (43.3)
	I did not Feel any Special	4 (13.3)
	Embarrassed	11 (36.7)
	Happiness and Greatness	2 (6.7)
Information about Menstrual Health	Yes	24 (80)
	No	6 (20)
Information Resources of Menstrual Health	Friends and Classmates	24 (80)
	Books and Pamphlets	14 (17.27)
	School Health Teacher	21 (70)
	Boarding Instructors	12 (14.81)
	Radio and TV	17 (20.9)
	Health and Medical Staff	3 (3.7)
	Others	4 (4.9)

Table 2: Mean scores of knowledge and performance about menstrual health before intervention, immediately after and one month later

Variable	Pre-Test	Post-Test	One Month Later	P Value (ANOVA)
Knowledge	6.80 ± 3.32	11.83 ± 2.00	11.56 ± 1.52	F= 41.36 P <0.001
Performance	63.90 ± 8.18	64.53 ± 8.27	73.86 ± 3.40	F= 21.989 P <0.001

DISCUSSION

One of the important parameter that affect the initial experience of menarche by the girls is adequate preparation prior to menarche. Therefore, girls who have insufficient preparation for menstruation and puberty are more likely to suffer sexually transmitted infections and unwanted pregnancies at earlier age²². Research studies showed that teaching menstruation issues to adolescent girls living in welfare boarding centers can cause increase in the knowledge of adolescent girls about puberty and menstruation. The results obtained by El-Lassy et al²³ and Marvan et al²⁴ were similar to our study.

The age of menarche is determined by general health, genetic factors and socioeconomic & nutritional status. In this study, mean age of menarche was 12.8 ± 0.3 years; and in 83.3%, age of menarche was 10-13 years. Our results are similar with the findings of Krnal et al²⁵ where 70% girls achieved menarche at the age of 13 years. Other studies conducted by Kulkarni et al²⁶ and Mittal et al²⁷ reported the age of menarche as 13.1 years and 13.5 years respectively. This difference could be ascribed to the influence of both heredity and socio-economic conditions especially nutrition.

Although 43.3% of them described it as a horrible event; they became scared due the fact that they were not aware about the same prior to its occurrence and were not mentally prepared for it which worsened their experience. Similar result were seen in the studies by Mudey et al¹³ and Manhas et al²⁸ which reported that 49.5% and 43.67% became scared at the time when menarche happened.

We observed that knowledge about the cause of menstruation rose from 6.80 ± 3.32 in pre-test to 11.56 ± 1.52 in post-test. The awareness about the source of menstrual discharge increased following health education. Rajni et al³ reported similar improvement in awareness among rural adolescent girls of Haryana.

As regards the main source of information, the girls reported that friends and classmates were the source

of information and whom they discussed menstruation issues with. Information was often shared before menarche or after they had started their periods. These findings are supported by El-Mowafy et al²⁹. Studies have shown that most (53.8%) of mothers were found to be principal source of information for school going girls about the occurrence of menarche⁴. Unfortunately, girls living in welfare boarding are deprived of maternal favors.

In the present study, betterment in the menstrual hygiene practices such as washing external genitalia, washing cloth with water and soap and then desiccating it under direct sunlight were improved following health education. Similar improvement in menstrual hygiene practices following health education was also observed in other studies^{3,7,30}.

LIMITATIONS

Our study had these limitations. Firstly, the study sample was small and limited to Hamadan welfare boarding centers. Secondly, due to the sensitivity of menstrual health issue in Iran, some subjects did not have active participation in the group counseling process.

CONCLUSION

Considerable improvements was found in adolescent girls' knowledge and practice about menstrual hygiene after group counseling.

RECOMMENDATIONS

Based on our study findings, it is important to educate the adolescent girls living in welfare boarding centers about topics relevant to menstruation, so that they can protect themselves against relevant infections and illnesses. Consequently, many of the problems caused by ignorance of the adolescents can be prevented and we could lead the next generation to progress in the right direction. Systematic development of training programs are needed for orphanage (boarding centers) staff and health care providers regarding menstruation

and reproductive health. Because these teenagers are deprived of family, their coaches can use group counseling to promote awareness and improve their health practices.

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CONTRIBUTORS

FEA and FS designed the study. FEA and PP processed the data. FEA and YM performed the statistical analysis. FEA, FS and YM interpreted the results. FEA, FS, YM and PP wrote the first draft. FEA, FS and YM revised the final draft. All authors read and approved the final manuscript. All authors contributed significantly to the submitted manuscript.