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A Comparative Study of the Effect of Training in the two Groups of Peers and Health care experts on Quality of Life among the adolescent girls living in rural areas of Qazvin, Iran.

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ABSTRACT

Puberty is an important period in human's life, affecting the quality of life among the adolescents. This study investigates the effect of peer education on puberty. Quasi-experimental intervention study was conducted involving 303 adolescent girls living in rural areas of Qazvin were. Participants were divided into 2 groups and then trained in 6 weeks, one of them by healthcare experts and another by peers. The Iranian version of the WHOQOL-BREF questionnaire was served as the research tool. Two weeks after the training sessions finished, Questionnaires focusing on the quality of life were filled by both groups. Data analysis was performed using the SPSS version 21. A P-value of < 0.05 was considered statistically significant. The score of adolescents' quality of life in the group trained by peers was higher than the group trained by health care experts in all aspects. In the physical aspect, this difference was statistically significant ($P < 0.003$). A different quality of life mean score before and after the intervention was also observed. Training exerted by Peers can improve quality of life more effective than what conducted by health care experts. The use of this method is suggested in adolescents' health education.

Keyword: Quality of Life, adolescent girls, Training, quasi-experimental, Qazvin.

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INTRODUCTION

Puberty is an important period in the People's life[1].which represents major physiological, biological, social and psychological, allowing individuals feelings and behaviors to manifest differently[2, 3]. The establishment of puberty is mediated directly by changes in brain. The social environment could influence the puberty by triggering indirect changes in psychological status[4].Parental misbehavior and ignorance can result in adolescents being annoyed by their friends as well as working in inappropriate places, which can affect their health and quality of life [5].

Quality of life which is considered as one of the essential indicators of social health, Encompasses a variety of aspects such as physiological and functional conditions of individuals. Therefore, its measurement seems to be necessary in health studies [6] so that collecting information about the quality of life in general population of the country can be considered as a basic information and also be referred in Evaluation of interventions[7].Puberty status is considered as an important factor in determining the quality of life of adolescents[8].An appropriate method of education allows the adolescents to direct their innate energy in the best way and could protect them from behavioral problems[9].

There are different educational intervention which focused on puberty and its properties[10-13]. A study conducted in India showed that peer education not only is effective in increasing the knowledge of adolescent girls in reproduction-related health issues but also takes less time compared to other methods[12]. A study focused to compare the effect of group teaching and peer education on knowledge, performance and attitude of Turkish students toward the breast cancer prevention, showed that both methods increase the student's knowledge and attitude Although more notable in subjects trained by peers[14]. A study conducted in Kermanshah, Iran, showed that peer education Leads to increased participation among girls and women and also improves their relationship[15]. Our study was focused to compare the effect of two educational methods, one of them exerted by peers and another by healthcare experts, on the social capability of adolescent girls who live in rural areas of Qazvin, Iran.

MATERIALS AND METHODS

This quasi-experimental study targeted all adolescent girls living in rural areas of Qazvin, Iran. In order to provide easy access and increase the applicability of the study, the intervention and control groups were randomly selected among the rural high schools of Qazvin Province. The sample size was estimated 270 that increased to 302 due to the implementation of the program at class level (151 numbers in each group). The tool used in this study was Iranian version of The World Health Organization's Quality of Life (WHOQOL-BREF) questionnaire, which included questions in some aspects of individual's life: physical, psychological, social relationships and environmental health [16]. This questionnaire examines quality of life regarding the state of sleep, physical pain, working capacity, personal relationships, self-satisfaction, depression and despair, access to health services and so on. For each aspect a score range of 0-100 was considered and higher score represented better quality of life. In addition, Educational package was prepared, regarding to the quality of life aspects and presented to the two trainer groups including health care experts and peers which had been selected from each class through consultation with school authorities. Training sessions were held to prepare them for educating the target groups. In targeted schools one class was chosen as the intervention group and another as the control group. Then they were trained by peers and health professionals, respectively. The training lasted 6 weeks and the suggested teaching methods were lectures and Q & A (question and answer). Two weeks after the training sessions finished, questionnaires concerning the quality of life were filled by both groups to assess the effect of educational interventions. All students participated in this study initially signed a consent and those who did not like to participate or were not able to, were excluded. Data analysis including descriptive analysis and t-test was performed by the newest version of SPSS software (version 21). P-value of < 0.05 was considered statistically significant.

RESULTS

The total number of 300 female students of the first and second years of high school of rural areas participated in this study (participant rate = 99.33%). Of them, 12 (4%) had chronic disease and 20 (6.6%) were suffering from an acute infectious disease at the time of filling the questionnaires. The average of their family

members was 4.57 ± 1.1 and the average size of their home was 160.25 ± 115.08 square meters. Only 36 (12%) of the families were living in a rental home. Other variable has been present in table 1.

Table 1: situation of baseline variables in two Study Group

| Variable | Peers(n=150) | Health care expert(n=150) | P-value |
|--------------------------|----------------|---------------------------|---------|
| Age | 13.50 ± 0.65 | 13.4 ± 0.67 | NS |
| Height | 158 ± 7.30 | 158 ± 0.65 | NS |
| Weight | 19.80 ± 3.57 | 19.60 ± 3.40 | NS |
| average family members | 4.28 ± 0.95 | 4.86 ± 1.25 | NS |
| average size home | 165.90 ±111.01 | 154.60 ± 119.02 | NS |
| chronic disease | 7 (4.66%) | 5 (3.33%) | NS |
| acute infectious disease | 9 (6%) | 11(7.33%) | NS |
| Live in rental home | 15 (10%) | 21 (14%) | NS |

Data represent Mean ± SD and number (%). Use t-test and X² for comparison of two groups. NS= not significance.

Result of our study showed that mean score of Physical, Psychological, Social, and Environmental domains was 72.31 ± 13.73 , 69.06 ± 18.81 , 39.61 ± 13.11 and 66.95 ± 17.68 , respectively (figure 1).When the average scores of four aspects of quality of life were determined in both studied group, we noticed a statistically significant difference in the physical aspect ($p < 0.003$) (table 2).

Figure 1: The average scores of four aspects of quality of life among the adolescent girls living in Qazvin city according to the World Health Organization Quality of Life Questionnaire.

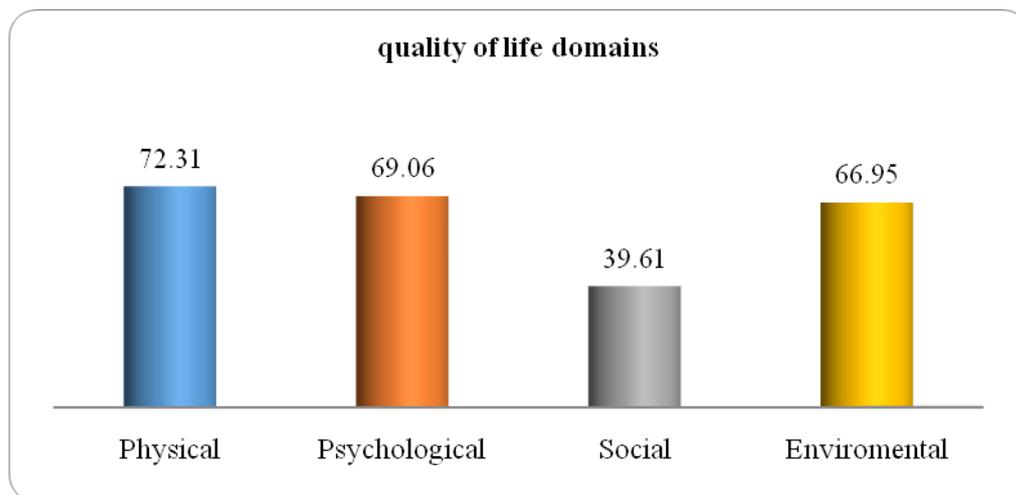


Table 2- The comparison of the average scores of four domains of quality of life for adolescent girls in two groups.

| groups | domains of quality of life | | | |
|--------------------|----------------------------|---------------|-------------|---------------|
| | Physical | Psychological | Social | Environmental |
| Peers | 71.93±13.97 | 69.03±18.23 | 39.5±13.25 | 66.91±18.6 |
| Health care expert | 73.15±13.23 | 69.13±20.18 | 39.82±12.86 | 67.01±15.44 |
| t(P-value) | -2.31(0.02) | -0.588(0.55) | 0.84(0.40) | 0.027(0.90) |

DISCUSSION

Peer education promotes the knowledge, attitude and skills of individuals especially youths, encouraging them to be more responsible and careful about their health and experience a more pleasant life [17]. This kind of training is used in the public health issues such as educations concerning the individual’s

nutrition, family planning and the prevention of drug abuse and violence[18]. According to the results obtained, the mean scores in all quality of life aspects were higher in peer group than health professionals group. Similar studies focused on peer education with a different set of quality of life aspects has shown similar results[11, 19-22]. A study in Turkey showed that the knowledge of those who had been trained by a group of peers was significantly increased more than the control group. This study Emphasizes that peer education programs need to be included in school curriculum and educational authorities should develop and promote this type of training programs[23]. A similar study in Ethiopia showed that peer education in cases of using the existing resources plays an extremely effective role in the prevention of HIV incidence[24]. In patients with diabetes who had been suffering from the emotional disorders, peer education was recommended as a good method to warrant the patient's mental health and self-management[25].

In this study, peer education has been taken into account among the adolescents. Since the adolescence is one of the important factors in determining the value of knowledge and attitude [26], the demographic and also economic status of both groups was equalized to assess the impact of peer education in this age group.

This study was conducted on adolescent girls. A resemble study conducted, in which African-American boys and girls students were influenced differently by peers[27]. A meta-analysis study investigated the effect of age, social and familial characteristics as well as peer education on individuals and showed that the peer behaviors is dependent to the gender[28].

In most societies, young people are not given required knowledge of methods providing physical and sexual health due to a bad socioeconomic status; or they might be given wrong information because of age-concerning considerations. Accordingly, the peer education is considered as one of the most effective ways to perfectly deal with these cases[18].

The important role of teachers and school's management team deserve a special consideration, by which we can setup the educational programs more effective, manage the important factors affecting the education and finally enhance the students' perception about the health concepts[23].

CONCLUSION

The results of the present study indicated that peer education leads to more increased mean scores in all aspects of quality of life than the health care experts education. Hence, because of the effectiveness on adolescents, simplicity of implementation as well as cost-effectiveness, this method of training is recommended to be included in adolescent training programs, regarding the training content used.

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