Evaluation of the Effectiveness of Sexual Health Responsibility Education Given to Gypsy Adolescents by University Students Using the Peer Education Method*

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Abstract

Aim: This study aimed to evaluate the effectiveness of sexual health responsibility education given to gypsy adolescents by university students using the peer education method.

Method: The study has a quasi-experimental non-randomized single group pretest-posttest design. The sample of the study, which was carried out at a university in a city in the Black Sea region and in the Gypsy neighborhood of the same city, consisted of a total of 283 adolescents, including 176 university students and 59 Gypsy adolescents who were trained by 48 volunteer peer educators. The data were collected with the information form and the Sexual Health Knowledge Level Determination Form. The data were evaluated using descriptive statistics and McNemar Worker test in the SPSS 21.0 program.

Results: It was found that after peer education, there was a significant increase in the level of knowledge about talking about sexual health in adolescents, female and male reproductive organs and physiology, paying attention to reproductive health, the purpose and methods of family planning, the effects of early marriage and adolescent pregnancy on health, sexual health-related values, ways of transmission of Sexually Transmitted Diseases and ways of protection.

Conclusion: It was found that sexual health responsibility education given to Gypsy adolescents by university students through peer education method increased the sexual health knowledge of Gypsy adolescents. Adolescents should be prepared for adulthood by gaining sexual health responsibility through the promotion of peer education programs.

Keywords: Adolescent, Gypsy, sexual health, peer education.

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Üniversite Öğrencileri Tarafından Akran Eğitimi Yöntemi ile Roman Adölesanlara Verilen Cinsel Sağlık Sorumluluğu Eğitiminin Etkinliğinin Değerlendirilmesi

Amaç: Bu çalışmanın amacı üniversite öğrencileri tarafından akran eğitimi yöntemi ile Roman adölesanlara verilen cinsel sağlık sorumluluğu eğitiminin etkinliğinin değerlendirilmesidir.

Yöntem: Araştırma yarı deneysel, randomize olmayan tek grup ön test-son test desenine sahiptir. Karadeniz bölgesinde bulunan bir ildeki bir üniversitede ve aynı ilde ağırlıklı olarak Romanların yaşadığı bir mahallede gerçekleştirilen araştırmanın örneklemini 176 üniversite öğrencisi ve 59 Roman adölesan olmak üzere toplam 283 adölesan oluşturmuştur. Veriler bilgi formu ve Cinsel Sağlık Bilgi Düzeyi Belirleme Formu ile toplanmıştır. Veriler SPSS 21.0 programında tanımlayıcı istatistikler ve McNemar Worker testi kullanılarak değerlendirilmiştir.

Bulgular: Akran eğitimi sonrası adölesanlarda cinsel sağlığı konuşabilme, kadın ve erkek üreme organları ve fizyolojisi, üreme sağlığına ilişkin dikkat edilmesi gerekenler, aile planlamasının amacı ve kullanılan yöntemler, erken evlilik ve adölesan gebeliğin sağlık üzerine etkileri, cinsel sağlıkla ilgili değerler, cinsel yolla bulaşan hastalıkların (CYBH) bulaşma yolları ve korunma önlemleri ile ilgili bilgi düzeylerindeki artışın anlamlı olduğu görülmüştür.

Sonuç: Üniversite öğrencileri tarafından akran eğitimi yöntemi ile Roman adölesanlara verilen cinsel sağlık sorumluluğu eğitiminin Roman adölesanların cinsel sağlık bilgisini artırdığı belirlenmiştir. Akran eğitim programlarının yaygınlaştırılması yoluyla adölesan bireyler cinsel sağlık sorumluluğu kazanmış olarak yetişkinliğe hazırlanmalıdır.

Anahtar Sözcükler: Adölesan, roman, cinsel sağlık, akran eğitimi.

Introduction

In the adolescence period, which is accepted as young adulthood, individuals make an effort to accept their sexual identity, get rid of dependence on parents, search their place in the society and move towards a profession[1]. At the same time, in this period, they may face problems such as negative health behaviors and violence due to gender inequality[2]. Especially in Gypsy adolescents, who are seen as a disadvantaged group, risky sexual behaviors such as unprotected sexual intercourse and homosexuality, as well as alcohol abuse, smoking, and substance use, and early marriages are quite common[3-5]. These problems can be prevented through education. However, the disadvantaged group of Gypsy adolescents is a closed group, and their limited access to education services restricts their access to health education opportunities[3,4].

One of the sexual health problems that can be seen during the adolescence period is adolescent pregnancies. According to the United Nations International Children's Emergency Fund (UNICEF) 2017 data, the rate of marriages under the age of 15 in the world is 5%, while it is 21% under the age of 18. The rate of marriages between the ages of 15-19 is 13%[6]. As far as the gypsies are concerned, a study conducted in seven different countries between 2011 and 2017 revealed that 27% of Gypsy women got married before the age of 18[7]. Taylan[8] found that in Turkey, the rate of early marriages in gypsies is 41% and the age at first marriage is 12. Ozkan[9] revealed that the age of marriage in Gypsy women is 13-17, and Taylan[8] 15-19 in Gypsy men. Early marriage is very risky for adolescent groups as it brings pregnancy with itself. There is no clear information about sexually transmitted diseases in gypsy adolescents[10]. The study, which examined 10.800 HIV-infected adults from 19 hospitals in Spain, found that the largest group infected with HIV was the Gypsies[11]. It seems that Gypsies in the adolescence period are at higher risk

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for sexually transmitted diseases because they are adolescents and Gypsies at the same time.

Although there are studies in the literature aiming to improve the sexual and reproductive health knowledge of adolescents in the adolescence period using the peer education method, there are no studies in which university students have given sexual health education to both Gypsy and university adolescents as peer educators[12-15]. Ustundag found an improvement in the level of knowledge among 42 young individuals upon completion of the sexual and reproductive health training[15].

The peer education method, which is based on the social learning model, is an education method that includes informing young people who want to improve their knowledge in some areas through the education given by competent people and then sharing the information they learn with their peers[16,17]. The use of peer education in university education has recently become widespread, and the studies conducted in Turkey and other countries revealed that positive results are obtained in the target groups as far as the intended learning outcomes are concerned[12,16,18-22]. While conducting a peer education program, the aim is to establish the recommended behavior for the target group or to eliminate a risky behavior; thus, it is aimed to prevent early sexual behaviors and pregnancies in Gypsy adolescents indirectly through the peer education method[23].

Sustainable development objectives aim at healthy development based on gender equality, with the access of all people to reproductive health services, including sexual health, and information and education on the subject under the headings "Healthy and Quality Life" and "Gender Equality." There are no studies in the literature that support the development of sexual health knowledge among gypsy adolescents, particularly through the peer education method; therefore, it is necessary to conduct studies to raise awareness among this disadvantaged group. In this context, this study was aimed to examining sexual health responsibility education given to gypsy adolescents by university students using the peer education method.

Material and Methods

The study has a quasi-experimental, non-randomized, single-group pretest-posttest design.

Research Population and Sample

The research population consisted of students who studied at a university and the young people in a Gypsy neighborhood. The purposeful sampling method was used to determine the sample group of the study. No sample calculation was made to determine the sample size, and all adolescents who volunteered and met the inclusion criteria were included in the training. Sample selection was carried out in two stages. In the first stage, announcements were made for peer educators, and volunteers who applied for the education were included in the research after they were informed about the purpose and requirements of the research by the research team. At this stage, the sample selection criteria was being a volunteer, participating in the education sessions to be given, and then agreeing to participate as a peer educator.

In the second stage, peer educators were asked to give education to university students and Gypsy youth and evaluate the education they gave. Each peer educator agreed to educate

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3-4 university students and 1-2 young gypsies. As a result, 48 peer educators, 176 students, and 59 young gypsies were included in the research. The inclusion criteria in the second stage was being a volunteer.

Data Collection Tool

The questionnaire used in collecting the data was developed by the researchers and consists of two parts: an introductory information form and a sexual health knowledge level determination form[3,4,10,14,15,21].

The questionnaire includes questions on talking about sexual health with individuals of same and opposite sex, female and male reproductive organs and physiological functions, paying attention to reproductive health, purpose of family planning and methods, early marriage and the effects of adolescent pregnancy on health, sexual health values, ways of Sexually Transmitted Disease (STD) transmission, and protective behaviors. Before the application of the questionnaire, the opinions of five experts in the fields of health, education, and social sciences were received.

Data Collection

The data for the research were collected between December 2017 and April 2018. The data was collected in two stages. In the first stage, the questionnaire was applied to peer educators three times: before peer training (pre-test), after training (post-test-1), and after the peers completed the education, they gave to other young people (post-test-2). In the second phase of data collection, two measurements were made on university students and Gypsy adolescents who received peer education on sexual health responsibility: before training (pre-test) and after training (post-test). The data collection time for each measurement took 10 minutes on average.

Application

The researchers conducted the study in two stages. In the first stage, research announcements were made to university students by hanging posters in the school canteens and through social media, and 48 university students volunteered to become peer educators. Peer educator candidates were given a training titled “Gaining Sexual Health Responsibility through the Peer Education Method” in five sessions with a total training time of 10 hours. Each session lasted 45-60 minutes, and the training was completed in two days. The “Peer educator training” was given by the research team, and the instructors were academicians who were experts in sexual health. The content of the training included the features and importance of peer education, the reproductive system and sexual health, talking about sexuality, safe sexuality, sexually transmitted diseases and family planning methods, early marriages and the effects of adolescent pregnancies on health, and sexual values/norms. A printed training booklet involving the training topics was also given to the peer educators. Peer educator trainings were carried out with an interactive method using audiovisual materials, educational videos, and the question-and-answer method. At the end of the training, a workshop where peer educators developed the brochures they would use while providing sexual health education was held. The brochures produced in the workshop were checked by the trainers, and they were put into the final form to be used during peer education. At the end of the training, peer educators were presented with “adolescent sexual health peer educator” certificates.

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In the second stage, it is aimed that each peer educator provides sexual health responsibility education to at least four adolescents in total, 1-2 adolescents living in the gypsy neighborhood and 3-4 university adolescents. The data were collected before the education (pre-test) and after the education (post-test) through the face-to-face interview method using the questionnaire developed by the researchers. Peer educators provided peer education on sexual health to 60 gypsies and 180 university adolescents in total. One Gypsy and four university students were excluded from the study because their questionnaires were incorrect. As a result, a total of 235 adolescents (59 gypsies and 176 university students) with a valid questionnaire were included in the study. Peer educators transferred their knowledge about sexual health to their peers after applying pretests. The sexual health responsibility training given by peer educators to university and gypsy adolescents consisted of 4 sessions and lasted 8 hours. Each session lasted for about 45-60 minutes and two days in total. The educational content included reproductive systems and sexual health, talking about sexuality, safe sexuality, family planning methods, early marriages and adolescent pregnancies, and STDs. The education was carried out with audiovisual materials, educational videos, and the question-and-answer method. Figure 1 presents the flow chart of the study.

Data Analysis

The SPSS 21.0 statistical package program was used to analyze the data. The descriptive data were expressed as number, percentage, mean, and standard deviation, and reliability analysis was evaluated with the Cronbach's alpha coefficient (Cronbach's alpha value for the pre-test was 0.787 and for the post-test was 0.793). The suitability of the data to normal distribution was tested with Kolmogorov-Smirnov statistics, and descriptive statistics and McNemar Worker analysis were used for analysis. Statistical significance level was accepted as $p<.05$.

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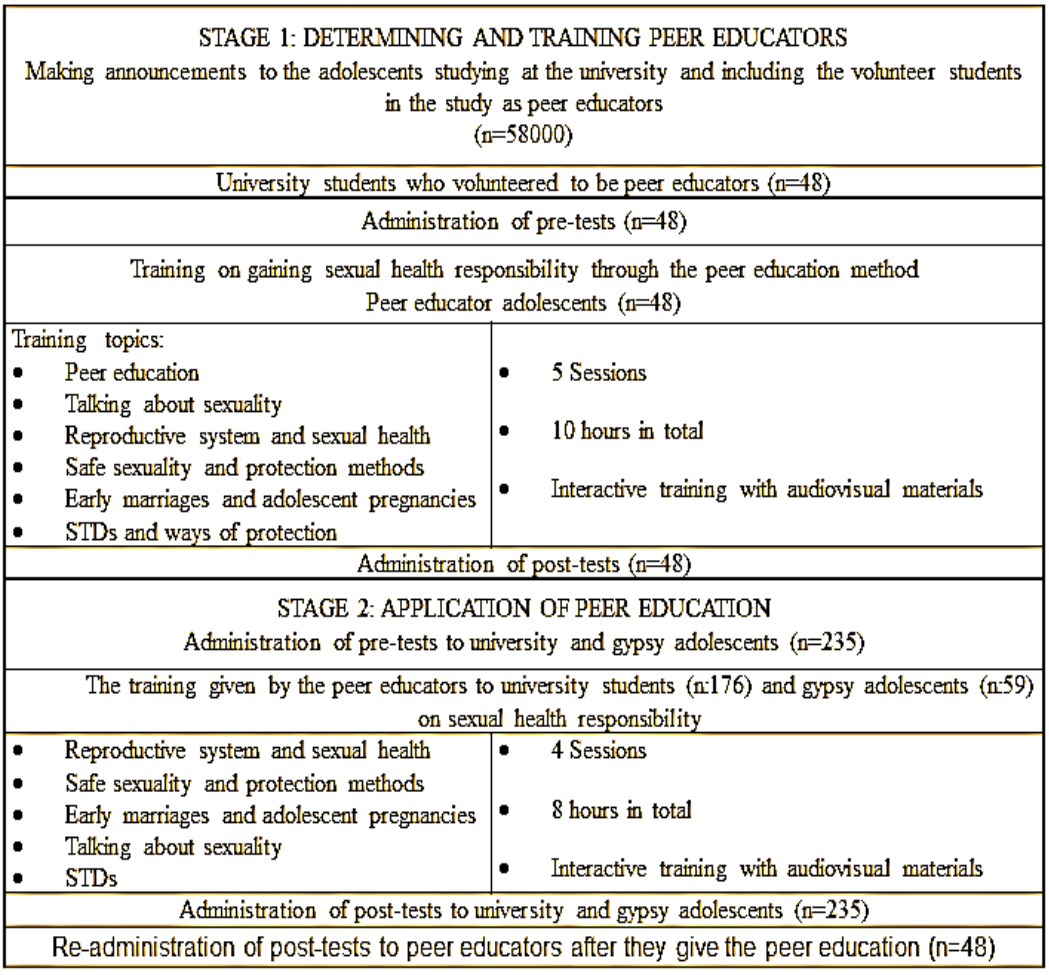
Figure 1. The Flow chart of the study



Research Ethics

Ethics committee approval was obtained before the study was started from Ondokuz Mayıs University Ethics Committee of Social and Humanity Sciences (29.11.2017 - 2017/410). The aim of the study and the research team were introduced to the adolescents participating in the research, and they were informed that participation was voluntary, they could withdraw from the study at any time, their information would be kept confidential, and the data obtained would be used only for scientific purposes. Finally, their informed consent was obtained. Ethical principles in the Helsinki Declaration (2008) were followed at all stages of the study.

Results

The average age of adolescents included in the study was 21.17 ± 2.76 (min: 18, max: 23) and 73.5% of the participants were women. 17% (n=48) of the adolescents were peer educators and 83% of them were the adolescents who received peer education (n=235). The departments where peer educators study are nursing (47.9%); psychological counselor and guidance (22.9%); midwifery (18.8%) and social work (10,4%). 25.2% (n = 59) of the adolescents who received peer education were gypsies, while 74.8% were

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university students (n=176); 32.2% of the students smoked; 13.4% consumed alcohol; 73.5% had social security; and 96.5% did not have any health problems (Table 1).

Table 1. Descriptive characteristics of peer educators and adolescents who received peer education

Characteristics	n	%
Age	21.17±2.76 (min:18, max:23)	
Gender		
Female	208	73.5
Male	75	26.5
Group		
Peer educator	48	17.0
Adolescent who received peer education	235	83.0
Department of peer educators		
Nursing	23	47.9
Midwifery	9	18.8
Psychological Counseling and Guidance	11	22.9
Social service	5	10.4
Characteristics of the adolescents who received peer education		
Gypsy	59	25.2
University student	176	74.8
Smoking		
Yes	91	32.2
No	192	67.8
Alcohol consumption		
Yes	38	13.4
No	245	86.6
Social security		
Yes	75	26.5
No	208	73.5
Health Problem		
Yes	10	3.5
No	273	96.5

The comparison of the pretest measurements before the training of the peer educator university students and the posttest-1 and posttest-2 measurements after the educator training revealed that the level of knowledge about being able to talk with same-sex and opposite-sex individuals about sexual health, female and male reproductive organs and physiology, attention to reproductive health, purpose of family planning and methods, early marriage and adolescent pregnancy effects on health, sexual health-related values, the ways of STD transmission and protection measures has increased (Table 2).

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Table 2. Pretest, posttest-1, posttest-2 measurement distribution of sexual health knowledge of peer educator adolescents

Items	Pretest						Posttest-1						Posttest-2					
	Yes		No		Partially		Yes		No		Partially		Yes		No		Partially	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
1. I can easily talk about sexual health and sexuality with my friend of the same gender.	43	89.6	-	-	5	10.4	46	95.8	-	-	2	4.2	48	100	-	-	-	-
2. I can easily talk about sexual health and sexuality with my friend of the opposite gender.	18	37.5	6	12.5	24	50	33	68.8	-	-	15	31.3	44	91.7	-	-	4	8.3
3. I know what topics health education should include.	22	45.8	-	-	26	54.2	47	97.9	-	-	1	2.1	48	100	-	-	-	-
4. I know how health education should be planned.	13	27.1	2	4.2	33	68.8	44	91.7	-	-	4	8.3	48	100	-	-	-	-
5. I have sufficient information about the male reproductive organs and the system, physiology, and functions.	25	52.1	1	2.1	22	45.8	47	97.9	-	-	1	2.1	48	100	-	-	-	-
6. I have sufficient information about the female reproductive organs and the system and functions.	28	58.3	1	2.1	19	39.6	48	100	-	-	-	-	48	100	-	-	-	-
7. I am knowledgeable about the situations when attention should be paid to the health of the reproductive organs.	27	56.3	-	-	21	43.8	47	97.9	-	-	1	2.1	48	100	-	-	-	-
8. I know the methods of protection and their aims.	37	77.1	1	2.1	10	20.8	46	95.8	-	-	2	4.2	48	100	-	-	-	-
9. I have sufficient information about the risks and effects of early marriages and adolescent pregnancies on health.	26	54.2	-	-	22	45.8	48	100	-	-	-	-	48	100	-	-	-	-
10. I have sufficient information about the values that are essential in a healthy sexual intercourse.	20	41.7	2	4.2	26	54.2	47	97.9	-	-	1	2.1	48	100	-	-	-	-
11. I know protective behaviors to prevent STDs.	26	54.2	2	4.2	20	41.7	47	97.9	-	-	1	2.1	48	100	-	-	-	-
12. I have enough information about how STDs are transmitted.	23	47.9	2	4.2	23	47.9	48	100	-	-	-	-	48	100	-	-	-	-

* pretest before peer educator training; posttest-1 after peer educator training; posttest-2 after giving peer education to university and Gypsy adolescents.

The pretest (pre-education) and posttest (post-education) measurements of both Gypsy adolescents and university students who received peer education revealed that their level of knowledge of being able to talk with same-sex and opposite-sex friends about sexual health, female and male reproductive organs and physiology, attention to reproductive health, purpose of family planning and methods, early marriage and adolescent pregnancy effects on health, sexual health-related values, the ways of STD transmission,

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and protection measures has increased, and this increase was statistically significant (p <.05) (Table 3, Table 4).

Table 3. Level of benefiting from peer education for the university adolescents

Items	Pretest						Posttest						Statistics
	Yes		No		Partially		Yes		No		Partially		
	n	%	n	%	n	%	n	%	n	%	n	%	
1. I can easily talk about sexual health and sexuality with my friend of the same gender.	111	63.1	20	11.4	45	25.5	148	84.1	8	4.5	20	11.4	33.651 .000
2. I can easily talk about sexual health and sexuality with my friend of the opposite gender.	22	12.5	112	63.6	42	23.9	58	33.0	58	33.0	60	34.1	61.842 .000
3. I have sufficient information about the male reproductive organs and the system, physiology, and functions.	51	29.0	51	29.0	74	42.0	130	73.9	7	4.0	39	22.0	89.328 .000
4. I have sufficient information about the female reproductive organs and the system, physiology and functions.	87	49.4	20	11.4	69	39.2	150	85.2	1	0.6	25	14.6	67.639 .000
5. I am knowledgeable about the situations when attention should be paid to the health of the reproductive organs.	67	38.0	14	8.0	95	54.0	163	92.6	1	0.6	12	6.8	95.048 .000
6. I know the methods of protection and their aims.	76	43.2	30	17.0	70	39.8	164	93.2	1	0.6	11	6.3	83.672 .000
7. I have sufficient information about the risks and effects of early marriages and adolescent pregnancies on health.	54	30.7	65	36.9	57	32.4	158	89.8	4	2.3	14	8.0	105.651 .000
8. I have sufficient information about the values that are essential in a healthy sexual intercourse.	52	29.5	51	29.0	73	41.5	154	87.5	3	1.7	19	10.8	102.929 .000
9. I know protective behaviors to prevent STDs.	43	24.4	76	43.2	57	32.4	158	89.8	3	1.7	15	8.5	117.643 .000
10. I have enough information about how STDs are transmitted.	37	21.0	81	46.0	58	33.0	156	88.6	5	2.8	15	8.5	124.438 .000

*pretest before training; posttest after training.

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Table 4. Level of benefit from peer education for the gypsy adolescents.

Items	Pretest						Posttest						Statistics
	Yes		No		Partially		Yes		No		Partially		
	n	%	n	%	n	%	n	%	n	%	n	%	
1. I can easily talk about sexual health and sexuality with my friend of the same gender.	48	81.4	6	10.2	5	8.4	57	96.6	1	1.7	1	1.7	9.000 .011
2. I can easily talk about sexual health and sexuality with my friend of the opposite gender.	23	39.0	27	45.8	9	15.3	39	66.1	9	15.3	11	18.6	18.667 .000
3. I have sufficient information about the male reproductive organs and the system, physiology, and functions.	21	35.6	24	40.7	14	23.7	43	72.9	4	6.8	12	20.3	20.026 .000
4. I have sufficient information about the female reproductive organs and the system, physiology, and functions.	24	40.7	21	35.8	14	35.6	45	76.3	8	13.6	6	13.6	19.556 .000
5. I am knowledgeable about the situations when attention should be paid to the health of the reproductive organs.	19	32.2	26	44.1	14	23.7	50	84.7	2	3.4	7	11.9	29.000 .000
6. I know the methods of protection and their aims.	27	45.8	17	28.8	15	25.4	52	88.1	1	1.7	6	10.2	23.143 .000
7. I have sufficient information about the risks and effects of early marriages and adolescent pregnancies on health.	24	40.7	17	28.2	18	30.5	50	84.7	4	6.8	5	8.5	24.543 .000
8. I have sufficient information about the values that are essential in a healthy sexual intercourse.	24	40.7	20	33.9	15	25.4	46	7.8	4	6.8	9	15.3	21.333 .000
9. I know protective behaviors to prevent STDs.	14	23.7	31	52.5	14	23.7	44	74.6	6	10.2	9	15.3	31.400 .000
10. I have enough information about how STDs are transmitted.	17	28.8	28	47.5	14	23.7	44	74.6	6	10.2	9	15.3	26.590 .000

*pretest before training; posttest

Discussion

This study revealed that peer educators' level of being able to talk about sexuality with their friends of the same sex, which was 89.6% before the training, increased to 95.8% after the training, and the level of talking about sexuality with the opposite sex increased from 37.8% to 68.8%. The fact that the majority of peer educators and the adolescents who received education were women supports the finding that it is easier to talk about sexuality with friends of the same sex than the opposite sex. The pre-education figures revealed that university and Gypsy adolescents knew male reproductive organs and their functions by 30.6% and female reproductive organs and their functions by 47.2%, which suggests that the level of knowledge of adolescents about the reproductive organs of the opposite sex was low.

When the pretest figures of adolescent groups were compared, it was seen that the level of sexual health knowledge was higher in the volunteer peer educator group. The majority of peer educators studied in midwifery and nursing departments and the curriculum of these departments includes sexual and reproductive health topics, which explains the reason why peer educators had a higher level of sexual health knowledge

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compared to other adolescents who received peer education. Furthermore, the reason for the low level of sexual health knowledge of university and gypsy adolescents prior to education can be attributed to the fact that they study in departments other than health, such as psychological counseling and guidance, theology, and educational sciences.

The knowledge level of adolescents about what topics health education should include was 45.8% prior to peer educator training, which suggests that when the volunteer peer educators consist of students from departments other than health, this figure may be lower. The strength of the study lies in the fact that peer educators received their education in health-related departments.

The study found that the level of knowledge of both Gypsy and university adolescents about sexual health, male and female reproductive organs and physiological functions, effects of early marriages and adolescent pregnancies on health and family planning methods, the STDs and ways of transmission, and values related to sexual health have increased significantly. No studies in the literature involve both the effectiveness of sexual health education and peer education for gypsy adolescents. Gypsy adolescents, who are also a disadvantaged group within the adolescent group, are known to be exposed to unprotected sexual intercourse, sexually transmitted diseases, and undesirable early pregnancy due to insufficient sexual health knowledge[3,5,8]. Gypsy adolescents also face the issue of school absenteeism. Due to the low level of education and school attendance, Gypsy adolescents cannot adequately benefit from sexual health education provided to school-age children and adolescents in schools[24]. In their systematic review and meta-analysis study, Medley and Kennedy examined the studies on peer education in developing countries between 1990 and 2006 and found that peer education supports positive behavioral change in individuals[21]. As Gypsy communities are closed groups and they have close kinship relations, strong interpersonal communication and social support levels, it is thought that the effect of peer education may be high[25]. Asci, Gokdemir found that the education given to nursing students with peer educators caused a significant change in the reproductive health behaviors of the students[12]. Dag and Dönmez investigated the effect of peer education on the knowledge levels of university students on sexual health and found that the majority of the students had higher levels of knowledge as a result of the education[13]. Using the peer education method, Guclu, Elem found that the education on sexual/reproductive rights and gender, sexual health problems and risky behaviors during the youth period, family communication and violence increased the sexual health knowledge of the young[26]. The studies conducted in the world and in Turkey so far have also revealed the positive effects of peer education on learning objectives in the target audience[18-21].

Similar to the findings of our study, peer education given to prevent Acquired Immunodeficiency Syndrome (AIDS) has been shown to increase the attitude and knowledge levels of university students[19]. Bulduk and Erdogan found in their study with university students that peer education has reduced the risky sexual behaviors of young people[18]. In parallel with the literature, in this study, it was revealed that peer educators who received training to help people gain sexual health responsibility increased their sexual health knowledge levels through the education they gave to a group of adolescents consisting of gypsies and university students.

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Conclusion

This study revealed that the information regarding the sexual health responsibility given using the peer education method created awareness both among the Gypsy adolescents as the disadvantaged group and university students. In addition, the training peer educators received to educate others positively affected both their sense of responsibility and awareness of giving education. In line with these results, it is recommended that peer education be preferred in trainings to be given on different subjects in Gypsy adolescent groups, that similar trainings should be applied to different disadvantaged groups using the same methods, and that the peer education model should be integrated into trainings organized for all adolescent individuals.

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