Original Article

The Effects of Self-care Education of Adolescents on the Power of Self-care

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Abstract

Background: Adolescents experience some physical and mental changes at adolescence so that they may meet situations that threaten the health. Therefore it is important to support adolescents in terms of self-care.
Aim: This study was conducted as a quasi-experimental experimental study in order to increase self-care power of the adolescents.
Methods: The study was conducted at a primary school in the central province of Yozgat. Adolescents who had the ability to understand and to answer the questionnaire, who were considered as able to attend the 6 trainings and who accepted to participate in the research and whose parents accepted to participate, 30 adolescents were included in the study. As the data collection tools, Questionnaire Form for the Adolescents and Self-care Power Scale were used. For the data analyses; numbers, percentage distributions, Simple Paired t test, Mann Whitney U test, Wilcoxon t test were used.
Results: As a result of statistical analyses; self-care power scale score averages of all of the adolescents increased statistically after the trainings ($p<0.05$). However, these score averages were found to be higher among those whose parents showed democratic attitudes in adolescents, among those whose mothers graduated from secondary school, among those whose fathers graduated from high school and college, among those whose mothers belonged to 30-35 age group and among those whose fathers belonged to 34-40 age group.
Conclusions: As a result of the study following subjects are suggested: school nurses should help adolescents to improve their self-care power, families should be supported by nurses on the subjects of adolescence and self-care issues.

Keywords: Adolescence, Adolescent Education, Self-care Education, Self-care Power.

Introduction

Adolescence is a period which starts with sexual and psycho-social maturity as a result of physical and emotional processes and ends when the individual gains freedom, sense of identity and begin to be productive socially. Adolescence lasts around 7-8 years but its effect will continue 50-60 years of lifetime. The most important feature of this period is that it covers the developments that will affect all aspects of life (Lerner & Steinberg, 2004;Papalia, Olds, & Feldman, 2006; Blume & Zembar, 2007).

Risky behaviours in terms of health which are primary reasons for disease and death of adults often come out during adolescence and continue in adulthood. The fact that adolescents are prone to risky behaviours, get to use of tobacco and alcohol creates a dangerous situation for their well being both mentally and physically (Berk, 2002; Camur, Uner, Cilingiroglu, & Ozcebe, 2007; McDevitt & Ormrod, 2004; Gokgoz & Kocoglu, 2007). Unhealthy eating habits, physical inactivity, use of tobacco, alcohol and substance, unsafe sexual behaviour which cause sexually transmitted diseases and unwanted pregnancy, unsafe behaviours that cause injuries and behaviours indwelling violence are major risky behaviours observed during adolescence (Shete &Wilkinson, 2017; Ramos, Brooks, García-Moya, et al., 2013; Letourneau, McCart,

Sheidow, & Mauro, 2017; Panova, Kulikov, Berchtold, & Suris, 2016).

Self-care is defined as an individuals performance of protecting their lifes, healths, wellbeings and self-care power is the ability to perform these activities (Tufekci & Arıkan, 2002). Self-care power develops from childhood, matures in adulthood, declines in old age, this situation affects self-care power (Hartweg, 1991).The changes specific to this period leads the adolescent to have intense fear, anxiety and worry and as a result perform risky behaviours and neglecting self-care applications. In this situation adolescents need proffessional support. In this context the evolution of self-care ability of the adolescents within psychical, environmental and psychological atmosphere has to be evaluated the negative effects of this atmosphere have to be exposed and they have to be helped to increase self-care ability providing them necessary education. This professional help is part of the duty and role of school health nurses. Nurses can determine the needs of adolescents and help them to cater for their needs by way of educating and caring them (Tufekci & Arıkan, 2002; Akduman, Bolısık, & Sonmez, 2004; Ergun, Yılmaz, Dagdeviren, & Dincer, 2009).

Methods

This study of a quasi-experimental design was conducted to determine the effects of self-care education of adolescents on the power of self-care.

H_0 hypothesis: Self-care education has no effect on improvement of self-care power.

H_1 hypothesis: Self-care education has effect on improvement of self-care power.

At the literature, it is stated that environmental conditions, education level, socio-economic conditions affect self-care power. (Hartweg, 1991; Akduman, 2003; Ergun & Conk, 2011; Nahcivan, 1999). So all the schools in Yozgat city center were evaluated in terms of these factors and a school was selected through simple random sampling among the determined schools.

Adolescents in the secondary school were taken as the research universe. 30 adolescents who were able to understand the research and answer it, who accepted to participate and attend 6 sessions and were allowed to participate by their teachers and parents were taken for research sample.

Data were collected by Questionnaire Form and Self-care Power Scale. Questionnaire form which was prepared by the researchers scanning the related literature, consisting of 13 questions about socio-demographic features of the students, mother and father age, education (Akduman, 2003; Ergun & Conk, 2011; Nahcivan, 1993). Self-care power scale which is used to determine the adolescents self-care power. Self-care power scale was developed by Kearney and Fleischer in 1979. The language adoptation, validation and the test of reliability of the self-care power scale was done by Nursen NAHCİVAN in 1993. Scale is likert-type with 5 and every statement in the scale is given a point 0, 1, 2, 3 and 4 respectively. Total 8 of the statements (3, 6, 9, 13, 19, 22, 26, 31 statements) evaluated as negative and scoring is reversed. The minimum score that could be obtained from the scale is 35 and the highest point is 140. High score shows the the high level of self-care power (Nahcivan, 1993; Nahcivan, 2004).

Adolescents who participated after getting written and verbal permissions that are needed for the research, filled the questionnaire form and self-care power scale. Adolescents were given education in 6 sessions during 6 days, every day taking one topic. Adolescents were applied again the self-care power scale 15 days after the educations were completed. Contents of the sessions:

1.session:the concept of self-care.
2.session:characteristics of adolescence, problems related to physical-psychological development and coping with them I (nutrition, hygiene, physical activity).
3.session:characteristics of adolescence, problems related to physical-psychological development and coping with them II (infectious diseases).
4.session:characteristics of adolescence, problems related to physical-psychological development and coping with them III (the hazards of using tobacco, alcohol and substances).
5.session:the importance of the relations between family and peers, open and efficient communication.
6.session:family, school and environmental problems that occurred and coping with them.

Data were analysed using SPSS (Statistical Package of Social Sciences) 15.0 package program. To display the demographic features of

the students, the statistics such as numbers, percentage distributions were used. Primarily normal distribution Kolmogorov Smirnov test was applied to evaluate datas. According to the results of normal distribution tests parametric tests were applied to variables with a normal distribution and non parametric tests were applied to variables with no normal distribution. Paired Simple t test, Mann Whitney U, Kruskall Wallis, Wilcoxon t test were used. $p<0.05$ was considered significant for all analyses.

Ethical approval from Erciyes University Medical Faculty Clinical Research Ethical Evaluation Commission and written permission of the school were obtained to conduct the study. Informed written consent for participating the study was obtained from the students and their families.

Results

All of adolescents participating in the research are 13 years of age and %50 are male adolescents.%86.7 of the adolescents have core family and %83.3 of adolescents' families have democratic attitudes.%60 of the adolescents' mothers belong to 36 years or older age group and %70 are primary school graduates, %80 of these mothers do not work. %53.3 of the fathers of the adolescents were found to be at the age group of 34-40 and %80 to be high school or university graduates.

It was observed that there is a statistically important difference between average scores of the self-care power scale of the adolescents' that were obtained before and after the education and it was determined that the average scores after the education are higher than the scores before education ($p<0.05$). (Table 1).

The distribution of the self-care power scale score averages, according to adolescents' parents' attitude, before and after the education are examined it was found out that adolescents' self-care power scale score averages are higher after the education than they were before the education. This score differences was found to be statistically meaningful in adolescents' having families with democratic attitudes ($p<0.05$).(Table 2). There is statistically meaningful difference when adolescents' self-care power scale averages are compared according to adolescents' parents' attitude, before and after the education separately ($p>0.05$).(Table 2).

The self-care power scale score averages distribution according to adolescents' mothers' and fathers' education level and age group were examined before and after the education it was determined the adolescents' self-care power scale score averages after education are higher than they were before the education.It was determined that differences are statistically meaningful for the groups of adolescents' having mothers of primary school graduates, fathers graduate high school or university, mothers at the age group 30-35, fathers at the age group 34-40 ($p<0.05$).(Table 2). There is no statistically meaningful difference when adolescents' self-care power scale averages are compared according to mothers' and fathers' education level and age group, before and after the education separately ($p>0.05$ Table 2).

Table 1 Comparison Of The Average Score Of Self-care Power Scale Of The Adolescents Before And After The Education

Characteristic	Before Education	After Education	t	P
	$\bar{X}$±ss	$\bar{X}$±ss		
Self-care power scale	99.80±9.00	105.67±7.53	2.809	0.009

t= simple paired t test

Table 2 Self-care Power Scale Score Averages Distribution Before and after Education According to Socio Demographic Characteristics of the Adolescents

Characteristic	Before Education $\bar{X}$ ±ss	After Education $\bar{X}$ ±ss	z	p	U o/s	P o/s
Mother level of education						
Primary school (n= 21)	101.00±9.61	106.85±7.23	-2.151	0.031	85.50/ 65.50	0.683/ 0.189
High school or university (n= 9)	99.11±7.84	102.88±7.88	-1.122	0.262		
Father level of education						
Primary school (n= 6)	102.33±4.96	103.50±7.71	-0.318	0.750	67.50/ 57.50	0.815/ 0.452
High school or university (n= 24)	99.16±9.72	106.20±7.54	-2.502	0.012		
Mother age						
30-35 age group (n=12)	100.08±9.55	107.00±7.16	-2.046	0.041	106.00/ 86.50	0.932/ 0.362
36 years or older age group (n=18)	99.61±8.87	104.77±7.83	-1.383	0.167		
Father age						
34-40 age group (n=16)	100.31±9.37	106.75±7.24	-2.614	0.009	102.50/ 89.50	0.692/ 0.349
41 years or older age group (n=14)	99.21±6.84	104.42±7.91	-0.473	0.636		
Parental attitude						
Democratic (n= 25)	98.52±9.22	105.72±7.03	-2.499	0.012	27.00/ 67.00	0.047/ 0.933
Different attitude(n= 5)	106.20±3.89	108.40±10.66	-0.135	0.893		

z= Wilcoxon t test U= Mann Whitney U test

Discussion

In our self-care education programme consisted of self-care, communication and coping with physical-psychological, family, school and environmental problems. This programme increased adolescents self-care power statistically meaningful ($p<0.05$) (Table 1). This result supports the hypothesis that self-care education has contribution to increase self-care power and show that planned self-care educations for adolescents help them to develop self-care

attitudes. In literature similar results can be found. In Ergun's study was determined that after education of adolescents their self-care power increase (Ergun & Conk, 2011). On the other study, self-care education which is given to children with asthma has been found to improve their self-care skills (Altay & Cavusoglu, 2013). In the research it is shown that adolescents' continuous and voluntary attendance to the education that were given in a certain order help to increase their self-care power

Adolescencents having families that have democratic approach get more benefit from the self-care education ($p<0.05$), (Table 2).The reason for this can be explained by the fact that adolescents capacity of self-care is increased because the democratic approach of the family towards adolescent provides an appropriate environment for the adolescent to talk with them freely, discuss the problems that he has or face with comfortably and finding solution together

It was determined that adolescents whose mothers graduate primary school, whose fathers are high school or university graduates get the better of self-care education ($p<0.05$ Table 2). Although it is expected that adolescents' self-care power should increase as the mothers' education level is higher because adolescents get their first konowledge of self-care applications from their mothers. Our research results do not prove that because the samples mothers' education level concentrated on primary school education. Similar to our research results there is no meaningful difference between adolescents' self-care power and the mothers' education level in the study of Ergun (Ergun & Conk, 2011). On the other hand, as the fathers' education level is higher he can realise the adolescents' incomplete aspects in the field of self-care and can help them.

It was determined that adolescents having mothers belonging to age group 30-35 and fathers at the age group of 34-40 get the better of self-care education ($p<0.05$ Table 2). According to Ergun's study, there is no statistically meaningful correlation between adolescents' self-care power and mothers', fathers' age group (Ergun & Conk, 2011). The difference between Ergun's study and our findings are because day by day health care and improvement in health gain importance and young families realize this and teach children healthy behaviours as a way of life. In the traditional Turkish families fathers do not intervene most matters at home, they are serious, respected even feared, but today this tradition is beginning to change with the change in society, young fathers are interested in their adolescent children and they contribute to their health care and have effective role in their health care improvements.

Conclusion and Recommendation

Adolescents having parents with democratic attitudes, adolescents whose mothers graduated primary school and fathers graduated high school or university graduates, whose mothers belonging to 30-35 and fathers 34-40 years old age group are more influenced self-care education.

Our recommendations are as follows;school nurses should be aware of the importance of self-care power and evaluate adolescents especially at the early years of adolescence. At the same time school nurses should plan nursing activities for eliminating adolescents self-care needs and they should implement and evaluate their plans. Parents should be given information and support by nurses on the subjects of adolescence period and self-care.

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