

Effect of individualized education efforts by a nurse to increase self-care capacity in adolescents*

Efeito das tentativas de educação individualizada de uma enfermeira no aumento da capacidade de autocuidado em adolescentes

Efecto de los intentos de educación individualizada de una enfermera en el aumento de la capacidad de autocuidado en adolescentes

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ABSTRACT

Objective: To increase the independent exercise of self-care capacity in adolescents who are in the final year of primary education
Methods: This study of a quasi-experimental design was conducted with 58 students. Data for the research were obtained by method of sociodemographic data collection for teenagers via three questionnaires to determine, respectively, the levels of self-care, “maternal information”, and the mother’s level of knowledge, as well as through educational leaflets for teenagers and a self-care capacity scale.
Results: We observed that there is a statistically significant increase in levels of self-care ability of adolescents after completing individualized education. It was determined that positive communication between adolescents and mothers increased the capacity for self-care, respectively.
Conclusion: We found that adolescent levels of self-care, and capacity for the same, increased considerably as a result of individualized education. The level of knowledge of their mothers particularly should be increased.
Keywords: Self care; Nursing care/methods; Adolescent; Patient education as topic

RESUMO

Objetivo: Aumentar o exercício independente da capacidade de autocuidado em adolescentes que estão no último ano do ensino básico
Métodos: Este estudo, do tipo quasi-experimental, foi realizado com 58 alunos. Os dados para a pesquisa foram obtidos por meio da coleta de dados sócio demográficos para adolescentes e de três questionários para determinar, respectivamente, os níveis de autocuidado, a “informação maternal” e o nível de conhecimento da mãe, assim como folhetos de educação para adolescentes e escala de capacidade de autocuidado.
Resultados: Observou-se estatisticamente que existe um considerável aumento nos níveis de capacidade de autocuidado dos adolescentes através de uma educação individualizada. Determinou-se que a comunicação positiva entre adolescentes e mães aumentou o nível de capacidade de autocuidado, respectivamente
Conclusão: Observou-se que os níveis de autocuidado e capacidade para o mesmo, dos adolescentes aumentaram consideravelmente, como resultado da educação individualizada. O nível de conhecimento das suas mães deve ser aumentado particularmente.
Descritores: Autocuidado; Cuidados de enfermagem/métodos; Adolescente; Educação do paciente como assunto

RESUMEN

Objetivo: Aumentar el ejercicio independiente de la capacidad de autocuidado en adolescentes que están en el último año de enseñanza básica.
Métodos: Este estudio, de tipo cuasi-experimental, fue realizado con 58 alumnos. Los datos para la investigación fueron obtenidos por medio de la recolección de datos socio demográficos para adolescentes y de tres cuestionarios para determinar, respectivamente, los niveles de autocuidado, la “información maternal” y el nivel de conocimiento de la madre, así como los folletos de educación para adolescentes y escala de capacidad de autocuidado.
Resultados: Se observó estadísticamente que existe un considerable aumento en los niveles de capacidad de autocuidado de los adolescentes a través de una educación individualizada. Se determinó que la comunicación positiva entre adolescentes y madres aumentó el nivel de capacidad de autocuidado, respectivamente.
Conclusión: Los niveles de autocuidado y capacidad para el mismo, de los adolescentes aumentaron considerablemente, como resultado de la educación individualizada. El nivel de conocimiento de su madre debe ser aumentado particularmente.
Descritores: Autocuidado; Atención de enfermeira/métodos; Adolescente; Educación del paciente como asunto

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INTRODUCTION

Adolescence is a period full of great transformations and discoveries; it is a time of affirming one's personality and developing deeper relations within society, the school environment, and mainly within the family structure. It is understood as a transition phase between childhood and adult age⁽¹⁾. In adolescence young people may experience problems such as physical changes, feelings of loneliness, a decrease in success at school, experimenting with smoking and/or drinking alcohol, an increase in aggressiveness, an increase in rebellious behaviors toward their parents, and difficulty in communicating appropriately within the context of various situations. Addressing the problems of young adolescents people, who account for 30% of our population, should be a priority⁽²⁾.

Some changes occur in the physical, cognitive, and social self-care requirements during the period of adolescence. The function of protecting and maintaining health is often difficult to achieve as adolescents focus a lot of energy on their bodily development, especially at the beginning of adolescence. According to the literature, self-care has a very important role in protecting, maintaining and improving health⁽³⁻⁴⁾.

Orem (1995), indicated that adolescents have self-care agency and are able to exercise self-care. However, others indicate that several issues prevent them from exercising this ability, including; the egocentric thinking process of adolescents, their risky behaviours, and the fact that they live, at times, in a world of fantasy⁽³⁾. As long as self-care activities do not become habits, there is a need to explain to individuals what is to be done and how it should be done⁽⁵⁻⁶⁾. Self-care agency is the capacity to perform self-care. The self-care exercises performed in adolescence are affected by basic situational factors, developmental self-care requirements and universal self care necessities⁽⁷⁻¹³⁾.

Some problems that arise during physical, sexual and psychosocial development in adolescence affect the health of adolescents and their latter life. Especially at the beginning of adolescence (10-14 years of ages), adolescents feel astonishment and anxiety related to the rapid physical changes in their bodies. Sayıl, et al. (2002) examined the emotional necessities of adolescents in the early adolescence period⁽¹⁴⁻¹⁵⁾ and determined that 67% of adolescents are anxious about the topics related to physical development, such as whether or not they have developed properly⁽¹⁶⁾.

The period of adolescence is a risky period when new things are experienced. Risky behaviors can prevent the completion of developmental processes, the proper performance of expected social roles, the acquisition of important skills and the development of feelings such as adequacy, and all this can prevent adolescents from preparing to pass into the early adulthood period from adolescence⁽¹⁷⁾.

All these developmental problems negatively affect the self-care agency of adolescents. As long as adolescents do not perform the necessary self-care to support their health, development and functions qualitatively and quantitatively, their self-care should be supported by nurses⁽³⁾.

In the nursing care of adolescents it is necessary to determine their self-care agency, and to guide and support individuals as a result of the determination of their weaknesses. It is also important to provide an environment that will help their development, and to educate them in health because it is known that education affects the self-care agency positively⁽⁹⁾. Children spend a large amount of their time in schools; these are environments in which adolescents can be informed of basic values about health. They can gain scientific knowledge and behaviors through health-related education, as schools have easy access to this population⁽¹⁸⁻²⁰⁾.

Schools are in the foreground as the place where such practices are implemented. However, it is noted that school nursing is part of the discipline that has not developed enough within Turkey. Today, services and indicators based on monitoring children ages 0-6, immunization, monitoring pregnancy, and birth control are among the main services of child health; and descriptions of services aimed at adolescents remain insufficient. Pediatric nurses, who can use the nursing process, offer individualized education, and have a good command of the concepts about self-care agency and inadequacy, and can collect data from adolescents and families during the nursing process. By problem-focused interviews they can help adolescents to:

- Accept their changing body image
- Increase their respect for self and gain the ability to make their own decisions
- Develop positive health behaviors
- Increase their capacity to provide their self-care exercises independently
- Gain the power to define and meet their self-care necessities (universal and developmental).

OBJECTIVE

The objective of this study was to increase the independent exercise of self-care agency in adolescents who are in their last year of primary school.

METHODS

This is a quasi-experimental study, with sixth-grade students (n=58) composing the sample group. The data for the research, including the socio-demographic data form for adolescents, questionnaire to determine the self-care levels, maternal information questionnaire, and the mother's knowledge level questionnaire, were collected by means of a self-care agency scale.

Through negotiations with the authorities of national education, the school was determined through a purposive modelling method due to low socio-economic levels of families in the areas where the school is located, and due to the observation of incompetent self-care behaviors in sixth grade students in the school.

The research was presented to the Council of Ethics in the Nursing Higher School of Aegean University. The required permission to conduct the research was obtained

from the Provincial and District Directorate of National Education. Explanatory information about the research was given to the adolescents and mothers, and verbal and written confirmations were obtained.

Data Collection

All questionnaires were prepared by the researcher through literature review. Prepared questionnaires were examined by two professors, one school nurse and one lecturer of public health nursing who were in charge of the department of child welfare and diseases. As a result of reviews, 30 items were omitted, five items were added, and 28 items were revised in the *Determination of Self-Care Levels Questionnaire*. A pilot study of the latest version of the questionnaires was conducted with ten adolescents; these results were not included in this research report.

Eight items were omitted, three items were added, and fifteen items were revised in the *Maternal Information Questionnaire* and the *Mothers' Knowledge Level Questionnaire*. A pilot study of the latest version of the questionnaires was conducted with ten mothers; pilot results were not included in this research report.

After adolescents were given general information about the research, written confirmation was obtained from the mothers, and verbal confirmation was obtained from adolescents prior to initiating the research. The *Socio-demographic Data Form*, the *Self-care Level Questionnaire* and *Self-care Agency Scale*, were then applied by the method of a one-to-one interview (pretest). The interviews with each adolescent took approximately 40 minutes.

At the end of the interview the answers obtained by the questionnaire were evaluated, scores and educational requirements were determined, and trainings were planned in accordance with these requirements. A one-to-one educational intervention was provided to each student. For five days, education was provided to each student about different topics during a 40-minute class period, with seven students receiving the education within a one week period. An educational booklet was also prepared according to the necessities of adolescents, and was provided to the adolescents.

During the education, the methods of narration, question-answer, discussion and demonstration were used. Twenty days after the completion of education, the *Self-care Level Questionnaire* and *Self-care Agency Scale* were again administered (posttest). During lunchtime, mothers received a scheduled visit at their home. This visit was aimed at determining their knowledge levels about preparing food and communication with adolescents (pretest). After each interview the mother's knowledge level questionnaire was evaluated and her educational necessities were determined. Additional education was given to mothers about preparing food and communication with adolescents by visiting them in their homes. At least 20 days after the completion of education the maternal information questionnaire was reapplied (posttest). The educational necessities of adolescents identified at the end of the evaluation are shown in Table 1.

The individualized education program applied to

adolescents was completed during the following five interviews:

- 1st interview: Growth and Development
- 2nd interview: Bowel Movement (Toileting and menstruation hygiene), Nutrition
- 3rd interview: Activities and Recreation, Social Interaction
- 4th interview: Risk Prevention (Avoiding accidents, harmful habits)
- 5th interview: Being Normal (problem solution and coping with problems, spiritual pressure, respect for the self).

The personal education program applied to mothers was carried out in the same way, through one-on-one interviews.

The following questionnaires were developed by the researcher following a thorough literature review. Each questionnaire has items that are rated by the participant as "never", "partly", or "completely". These responses were then converted by the researcher to numerical values ranging from 0-2, with 0 = never, 1 = partly, and 2 = completely.

Determination of Self-Care Levels Questionnaire

The questionnaire consists of 106 open-ended questions, organized into the categories of "Nutrition" (19 questions), "Bowel movement" (7 questions), "menstruation hygiene questions for girls in the context of bowel movement" (8 questions), "Activities and Recreation" (5 questions), "Social Interaction" (17 questions), "Prevention of Dangers" (21 questions), "Being Normal" (6 questions), "Juvenescence necessities within self-care necessities" (13 questions), and "Body image" (10 questions). All of these categories were developed within the context of Orem's universal self-care necessities.

Self-Care Levels Questionnaire

This questionnaire was developed by the researcher after a thorough literature review. Each item was rated by the adolescents.

The Maternal Information Questionnaire

This questionnaire was composed of 28 open-ended questions organized into the categories of "preparing food" (9 questions) and "communication with adolescents" (19 questions). The questionnaire was used with mothers, as relationship between mother and adolescent is thought to affect adolescents' self-care exercises⁽²¹⁻²²⁾. The questionnaire was evaluated by experts, and necessary corrections were made based on their feedback before the questionnaire was finalized. This questionnaire was evaluated according to the answers found in the mother's knowledge level questionnaire, prepared previously.

The Mothers' Knowledge Level Questionnaire

This questionnaire was prepared by the researcher to evaluate the knowledge of mothers, and was based upon a literature review. The purpose of the questionnaire was

to determine mothers' knowledge levels about preparing food and communication with adolescents.

Socio-Demographic Data Form for Adolescents

The Socio-Demographic Data Form was prepared by the researcher after a literature review. This form has 19 questions, including the basic situational factors that affect the personal information of adolescents and the quality and quantity of adolescents' self-care agency (for example, age, gender, socio-cultural situation, the availability and adequacy of sources and other factors of the family system).

Education Booklet: A booklet was developed that included information related to Orem's universal and developmental self-care necessities and it was prepared by the researcher, following a literature review. The booklet consisted of 47 pages, with content including:

- Puberty (general information about the features of the period)
- Developmental tasks in adolescence (things girls should learn in puberty, things boys should learn in puberty, and common itmes that all teens should learn)
 - Nourishment during puberty
 - Physical action and exercise
 - Protection from unhealthy substances
 - Protection from accidents.

The Exercise of Self- Care Agency Scale

The Exercise of Self-Care Agency Scale ⁽²¹⁾ helps people to determine their skills and abilities to look after themselves. It is a validated scale that includes 43 items. The language equivalence, validity and reliability of self-care agency scale were researched by Nahçıvan⁽⁹⁾. The likert scale has 5 points (scored as 0-4) and 8 of the items are evaluated as negative, so scoring is reversed. The lowest possible score is 35 and the highest is 140.

RESULTS

Results will be discussed in the same order as the data collection tools were presented in the data collection section.

Questionnaires

Determination of Self-Care Levels Questionnaire

It was concluded that as the score averages of adolescents rose at the end of the education, their self-care levels increased.

Self-Care Levels Agency Scale

The scores of adolescents on the *Self-care Agency Scale* increased after the education intervention, in a statistically significant manner (Table 1). The total averages of

Table 1 - Self-Care Levels of adolescents and comparison of pre-and post-education score averages of Self-Care Agency Scale

Self-Care Levels	N	Pre-Education X±ss	Post- Education X±ss	T	P
Total Score (TotalScore of Self-Care Level Questionnaire)	58	79.15±22.17	126.10±30.17	-15.085	.000*
Self-Care Agency Scale	58	97.05±19.35	102.67±20.18	-2.610	.0.12*

* statistically meaningful

Table 2 - Self-Care Levels of adolescents before and after education according to gender and comparison of score Averages of Self- Care agency Scale

Self-Care Levels	Girls (n=25)		Boys (n=33)		ö/s	ö/s
	Pre- Education X±ss	Post- Education X±ss	Pre- Education X±ss	Post- Education X±ss		
Total Score of Self-Care Levels	86.76±22.10	136.96±23.99	73.39±20.73	117.87±32.06	3.823/5.406	0.000/0.000**
Self- Care Agency Scale	107.08±15.16	115.64±12.67	89.45±18.89	92.84±19.35	2.159/2.226	0.035/0.030**

* statistically meaningful

Table 3 - Self-Care Levels of adolescents before and after education according to the accommodation units where they reside and comparison of score averages of Self- Care Agency Scale

Self- Care Levels	Village (n= 11)		District (n= 47)		T ö/s	P ö/s
	Pre- Education X±ss	Post- Education X±ss	Pre- Education X±ss	Post- Education X±ss		
Total Score of Self- Care Levels	72.23±27.54	101.38±28.60	81.15±20.29	133.24±26.90	1.285/3.709	0.204/0.000*
Self- Care Agency Scale	89.84±23.45	91.53±23.80	99.13±17.76	105.88±18.06	1.542/2.345	0.129/0.023*

* statistically meaningful

female adolescents on the *Self-care Agency Scale* were found to be higher before and after education, in a statistically significant manner (Table 2).

The total score averages of adolescents living in districts was statistically higher than those of adolescents living in villages, after the education intervention (Table 3). Total questionnaire score averages of adolescents living in flats and detached houses were more than the ones of the adolescents residing in slums both before and after education, in a statistically significant manner.

The Maternal Information Questionnaire

The average score of the mothers improved for the topics of food preparation and communication with adolescents after the education intervention, in a statistically significant manner (Table 4).

During the study, the correlation between the *Maternal Information Questionnaire* and the *Determination of Self-Care Levels Questionnaire* applied to adolescents and the *Self-care Agency Scale* was examined. A meaningful relation was found between total score and self-care agency scale (adolescence questionnaire score average $r: 304, p < 0.05$, self-care agency scale $r: .393, p < 0.05$).

The Mothers' Knowledge Level Questionnaire

After completing the *Mothers' Knowledge Level Questionnaire*, mothers received education about preparing food and communication with adolescents, and it was shown that mothers' knowledge levels increased.

Socio-Demographic Data Form for Adolescents

All of the adolescents participating in the research were 14 years old and the majority of them were male (56.9%). The majority of the adolescents (84.5%) had a nuclear family, 89.7% of them have siblings, and nearly half of them lived in a family of 4 people (46.6%). that the vast majority of the adolescents (81.1%) lived most of their lives in city districts: 39.7% of them lived in detached houses while 39.7% of them lived in flats. The majority (77.6%)

had social insurance. Many of them (43.1%) expressed that they spent their free time with social and cultural activities. Nearly half (48.3%) of the adolescents' mothers are between the ages 31-35; and 87.9% of them had graduated from primary school, and 70.7% of them were housewives. Over half (51.7%) of the adolescents' fathers are in 41 or older, and 79.3% of them are self-employed.

The Exercise of Self- Care Agency Scale

After receiving the educational intervention, as the level of the scores increased, the self-care agency of the individual was shown to be higher.

DISCUSSION

The personal education intervention provided during this study improved the total scores of the *Self-Care Level Questionnaire* and *Self-care Levels Agency Scale* of adolescents statistically (Table 1). Self-care potential is defined as the ability to strengthen and perform human activities on a certain activity level. Therefore an individual needs information about the determinance of self-care agency and self-care weaknesses, because it is considered to be an effective component of the self-care agency⁽²⁰⁾. Our results during this research are similar to results found in the literature. For instance, in the study in which the effects of the education given to adolescent mothers on the self-care agency and self confidence were examined, score averages of self-care agency after education were higher than those before education, in a statistically meaningful manner⁽²⁰⁾. Another study determined that the score averages of self-care agency after education were higher than those before the education, again at a statistically significant level⁽²²⁾.

When the self-care levels of adolescents were examined in terms of gender, girls had higher scores in self-care levels and self-care agency than boys both before and after the education (Table 2). The role of females in the family structure within Turkey may enable girls to be more skillful in the exercise of self-care

Table 5 - Self-care levels of adolescents based on the quality of houses in which they live before and after Education and the comparison of score averages of the exercise of self-care agency scale

Self-care levels		Pre-Education Averages of Squares	Post-Education Averages of Squares	df	F Eö/es	P Eö/es
Total Score for Self-Care Levels	Inter-groups	5552.212	10662.376	2	6.791/7.109	0.002/0.002**
	In-groups	22483.391	41245.004	55		
Self-Care Agency Scale	Inter-groups	2882.961	3378.805	2	4.292/4.681	0.019/0.013**
	In-groups	18469.884	19849.971	55		

* statistically meaningful

Table 4 - Information form for mothers and its subtitles and the comparison of their score averages before and after education

	N	Pre-Education X±ss	Post-Education X±ss	T	P
Preparing food	58	13.05±2.22	15.01±2.47	-6.041	.000*
Communication with adolescents	58	19.29±6.48	25.63±6.32	-9.227	.000*

* statistically meaningful

activities, while boys may fall behind in self-care levels because mothers are inclined to exercise self-care activities for their sons⁽⁹⁾.

The self-care exercises of humans show changes according to the cultural features of the environment with which they interact. It is an expected result that living in developed places affects self-care behaviors. In fact it can be said that the services such as education, health, transportation, communication, and so on, are offered on a contemporary level in these areas, thus affecting the adolescent's self-harmony, self-acceptance, self-confidence, self-care and self-respect^(8,13,23).

Adolescents living in city districts were found to have higher averages scores of self-care levels and agency than the adolescents living in villages, both before and after the education (Table 3). Similarly, Ergün, et al., (2009) found that the self-care agency averages of adolescents living in city districts were higher than the ones living in villages⁽¹³⁾. Other studies found that adolescents living in cities had higher self-care agency averages than the ones living in villages^(8, 23).

Adolescents living in flats and secluded houses had higher average scores of self-care agency and levels than the adolescents living in slums, both before and after the education (Table 5). The self-care exercises and levels of adolescents showed changes according to the condition of the environment in which they live and with which they interact. The social, sanitary and educational opportunities of adolescents living in an apartment flat or secluded house are much more developed than those in slum areas⁽⁷⁾. Ergün and et al., (2009) also discovered that the adolescents living in a flat or a secluded house have higher score averages of self-care agency than the adolescents living in slums⁽¹³⁾. In his further analysis Bonferroni determined the main difference was between the adolescents living in slums and the adolescents living in flats⁽²⁴⁾.

Research results have indicated that the person with whom adolescents communicate most is their mothers. Toprak and Ark found the communication of the majority of the adolescents (68.8%) with their mothers very satisfying⁽²⁵⁾. This relationship and communication would suggest that mothers affect adolescents' self-care levels and agency. Mothers were therefore also educated as a target group about the topics such as preparing food and communication with adolescents. It was noted that there was a significant increase in the knowledge level of mothers at the end of the education with regard to food preparation and communication (see Table 5).

In this study, the correlation between the *Mothers' Knowledge Level Questionnaire*, the *Self-care Level Questionnaire* and *Self-care Agency Scale* was examined. A meaningful relation was found between the category "mothers' communication with adolescents, total score and *Self-care Agency Scale* ($p < 0.05$). As the communication levels of mothers with adolescents increased, self-care levels and agency of adolescents also increased. The communication of adolescents with their families is very important. In the family the mother has a special place and she is generally the closest person to the adolescent. In their, Toprak and

Ark pointed out that 67.6% of the adolescents found solutions to their problems or the person who they think would find the solution was the "mother"⁽²⁵⁾. The evaluation of the communication between adolescents and mothers shows how well the family knows the adolescent.

As a result of the research it was determined that the increase in the positive communication between mothers and adolescents also increased self-care levels and agency. Other literature has indicated that problems are shared more with the mother at the beginning of adolescence⁽¹⁹⁾. In a study with 253 high school students, Özcebeci, et al., (2002) indicated that students share their health problems with their mothers at a very high rate⁽²⁶⁾. In a study to determine the knowledge of girls related to the physiology of menstruation, girls preferred their mothers as the source of information about the physiology of menstruation⁽²⁷⁾. The results of our study show similarities with this literature.

CONCLUSION

In this study conducted to increase the self-care levels and agency of adolescents, we found that adolescents' self-care agency and levels increased considerably as a result of individualized education. This significant and positive change was understood to stem from the education that aimed to increase self-care levels and agency, carried out in the framework of educational programs based on individual necessities.

When socio-demographic features were examined, we found that adolescent girls' self-care levels and agency are much higher than adolescent boys', both before and after education.

The average score of adolescents' self-care levels and agency among those living in flats or detached houses were much higher than that of the ones living in slums, both before and after education. The self-care exercises and levels of the adolescents varied according to the setting and environment in which they lived.

As the result of the study, we identified that the increase in positive communication between adolescents and their mothers increased their self-care levels and agency correspondingly.

In the light of all this information, we suggest that adolescents should be given necessary responsibilities to develop their self-care agency, they should be encouraged to pay attention to their personal care, and they should be better informed by pediatric nurses. Their mothers' knowledge level should also be a focus of nurses, to ensure that it is sufficient to provide accurate information to their adolescent children. Adolescent information centers should be opened, school nursing should be activated and made common, and guidance and counselling services should be developed.

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REFERÊNCIAS

1. Almeida AC, Centa ML. A família e a educação sexual dos filhos: implicações para a enfermagem. Acta Paul Enferm [Internet]. 2009 [citado 2011 Set 15]; 22, (1):71-76. Disponível em: <http://www.scielo.br/pdf/apc/v22n1/a12v22n1.pdf>
2. Türkiye Nüfus ve Sağlık Araştırması 2003. www.hips.hacettepe.edu.tr/tnsa2003/index.htm-14k Erişim Tarihi: 12.02.2007.
3. Slusher IL. Self-care agency and self-care practice of adolescents. Issues Compr Pediatr Nurs. 1999; 22(1):49-58.
4. McCaleb A, Cull W. Sociocultural influences and self-care of middle adolescents. J Pediatr Nurs. 2000; 15(1):30-5.
5. Callaghan H. Basic conditioning factors' influences an adolescent' healthy behaviors, self-efficacy and self-care. Issues Compr Pediatr Nurs. 2006; 29(4):191-204.
6. Dennis CM. Self care deficit theory of nursing: concepts and applications. Philadelphia: Mosby;. 1997. p.64-82.
7. Akduman S, Bolşpık B, Sönmez S. Sağlıkçıların öz-bakım güçlerinin incelenmesi, Hemşirelik Forumu Dergisi Ocak-Şubat (Nursing Forum). 2004; 7(1): 17-21.
8. Karapehlivan H. Kanseri hastalarda öz-bakım gücü ve bunu etkileyen faktörlerin incelenmesi, Yüksek Lisans Tezi, E.Ü. Sağlık Bilimleri Enstitüsü, İzmir. 2003; 53-75.
9. Nahçıvan N Ö. Öz-bakım gücü ve aile ortamına etkisi, Doktora Tezi, Y.Ü. Sağlık Bilimleri Enstitüsü, İstanbul. 1993; 22-23.
10. Özer M. Huzurevinde ve aile ortamında yaşayan yaşlıların öz-bakım gücü ve yaşam doyumunun incelenmesi, Yüksek Lisans Tezi, E.Ü. Sağlık Bilimleri Enstitüsü, İzmir. 2001; 30-150.
11. Pasinliođlu T. Gebelerin öz-bakım gücü ve öz-bakım gücünü arttırmada hemşirenin eğitimci rolünün etkisi, Uluslararası Katılımlı V. Ulusal Hemşirelik Kongre Kitabı, D.E.Ü. Rektörlüğü Matbaası, İzmir. 1998; 135-149.
12. Shin C. IOS New Scholor Paper; linking specific self-care nursing theory concepts with the literature on family dinner, self/dependent-care nursing. 2007; 15(1); 46-50.
13. Ergün S A, Yılmaz E, Dađeviren Z, Dinçer P. Mesleki eğitim ve çıraklık merkezinde eğitim gören ergenlerin öz-bakım gücünün incelenmesi, Adnan Menderes Üniversitesi Tıp Fakültesi Dergisi. 2009; 10(3):29-36.
14. Çudadarođlu F. Ergenlik döneminde psikolojik gelişim özellikleri. Katkı Pediatri Dergisi. 2000; 21(6): 863-868.
15. Ercan O. Adölesanın psikososyal gelişimi. Y.Ü. Cerrahpaşa Tıp Fakültesi Sürekli Tıp Eğitimi Etkinlikleri. Adölesan Sağlık Sempozyum Dizisi. 2005; 43:17-21.
16. Sayıl M, Ucanok Z, Güre A. Erken ergenlik döneminde duygusal gereksinimler, aileyle çatışma alanları ve benlik kavramını betimsel bir inceleme, Çocuk Ve Gençlik Ruh Sağlığı Dergisi. 2002; 9 (3): 155-164.
17. Alikapifođlu, A. Madde kullanımını risk faktörleri ve koruyucu faktörler. Y.Ü. Cerrahpaşa Tıp Fakültesi Sürekli Tıp Eğitimi Etkinlikleri. Adölesan Sağlık Sempozyum Dizisi. 2005; 43:73-83.
18. Yöndem Z, Güler S. Ergenlik ve cinsel sağlık eğitimi ile ilgili grup rehberliğinin 6. sınıf öğrencilerinin bilgi ve tutumlarına etkisi, VIII. Ulusal Psikolojik Danışmanlık ve Rehberlik Kongresi Bildiri Kitabı. İzmir. 2005; 38-49.
19. Kalpalp B. Adölesan annelere verilen eğitimin öz-güven ve öz-bakım güçlerine etkisinin incelenmesi, Yayınlanmamış Yüksek Lisans Tezi, Ege Ü. Sağlık Bilimleri Enstitüsü, İzmir. 2006; 45-47.
20. Çimen S. Adölesanın sağlık davranışlarının geliştirilmesinde hemşirenin rolü, III. Ulusal Ana Çocuk Sağlık Kongre Kitabı. İzmir. 2005; 131-134.
21. Kearney BY, Fleischer BJ. Development of an instrument to measure exercise of self-care agency. Res Nurs Health. 1979; 2(1): 25-34.
22. Fındık Ü. Ampütasyon uygulanan hastalarda eğitimin "hastalığı değerlendirme ve öz-bakım gücü" kazanma yetisine etkisi, Yayınlanmamış Doktora Tezi, İstanbul Ü. Sağlık Bilimleri Enstitüsü ABD, İstanbul. 1999;20-22.
23. Altın Y, Özdemir S, Ersay N. Sağlık yükseköğretim öğrencilerinin kişisel değerlerinin öz-bakım güçlerine etkisi. VII. Ulusal Hemşirelik Kongresi Bildirileri. 1999; 366-367.
24. Yıldırım A., Dimppek H. Sosyal bilimlerde nitel araştırma yöntemleri, Tıpkı Basım, 3. Baskı, Ankara. 2003; 93-94.
25. Toprak D, Mıstık S, Dođan N. Liseli adölesanlarda problem paylaşımı, Türk Aile Hekimliği Dergisi. 2004; 8(4):157-161.
26. Özcebe H, Sönmez R, Akıncı Ö, Baycu P, Karayay D, Kargın S at all. Adölesanlar ve anneleri arasındaki iletişim (Communication between Adolescents and Their Mothers). Hacettepe Toplum Hekimliği Bülteni. 2002; 21(3):1-3.
27. Demirel S. Gaziantep İli Bahinbey İlçesi ilköğretim okullarında öğrenim gören 5. ve 6. sınıf kız öğrencilerin menstruasyon fizyolojisine ilişkin bilgilerinin belirlenmesi, Hemşirelikte Araştırma Geliştirme Dergisi. 2003; 2: 47-48.