



Original Article

The relationship between self-esteem and perceived parenting styles of adolescents with cancer

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Abstract

Objectives: The development of self-esteem may be negatively affected in adolescents receiving cancer treatment and perceived parenting styles may also effect their self-esteem. This study aims to determine the relationship between adolescents' self-esteem and perceived parenting styles.

Methods: The quantitative-descriptive study was conducted with 55 adolescents diagnosed with cancer between the ages of 12 and 18. The study was conducted in the Pediatric Hematology and Oncology Service at Gazi University Hospital between 01.11.2012–01.06.2014. Data were collected with a Descriptive Characteristics Form related to the adolescents and families, the Rosenberg Self-Esteem Scale(RSES), the Parenting Style Questionnaire (PSQ)Scale.

Results: Most of adolescents had a high self-esteem score (85.5%). When the adolescents' perceptions of parenting styles were assessed, it was determined that 58.2% of the parents exhibited democratic behavior, and 41.8% exhibited permissive behavior. There was no significant correlation between the parenting style sub-scale scores and the self-esteem scores of the adolescents ($p>0.05$).

Conclusion: Self-esteem and perceived parenting styles of adolescents may have a significant impact on their adaptation to the illness. Therefore, assessing factors affecting the physical and psychological well-being of adolescents is an important part of nursing interventions.

Keywords: Adolescent; cancer; nursing; parenting style; self-esteem.

Childhood cancers account for 2% of all cancer types and the incidence rate has increased annually by 0.6% in the last 40 years.^[1] The cancer incidence rate in adolescents is declared to be around 1% among all cancer types.^[2] According to SEER data (Surveillance, Epidemiology and End Results), the cancer incidence in female adolescents is 235.5 in one million and in male adolescents 237.7 in one million in the USA. This rate is almost 1.3 times that of the 0-14 age group.^[3] The most common type of cancer in adolescence (15-19 age) in Turkey is lymphoma.^[4] Receiving a cancer diagnosis at this age and suffering from the related treatment is a stressful and life-threatening experience for the adolescent. Due to the problems encountered as a result of the cancer and related treatments, the physical and psychosocial wellbeing of both the child and the family is significantly affected.^[5-8]

Adolescence is an significant period when many physiological, psychological and social changes are experienced by adolescents and when the sense of identity and self are developing.^[9-11] Adolescents who receive a cancer diagnosis also suffer physical constraints related to the cancer and treatment, increased dependency on parents, isolation in their social life and school/work life and a decrease in abilities, as well as the typical development problems faced during adolescence.^[5,12,13] Adolescent peer relations, social environment and the parenting style of their parents, which affects the development of self-esteem, are disrupted, therefore self-esteem development in adolescents is also negatively affected.^[5,14-16] Self-esteem affects the psychosocial health of adolescents in various dimensions. Tonsing and Ow^[17] (2018) stated that self-esteem is significantly correlated with the spiritual

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What is known on this subject?

- Self-esteem is one of the most important developmental traits in the adolescent period similar to independence and self-identity. Self-esteem might be negatively affected and the development of self-esteem may be interrupted significantly by the effects of cancer and the treatment. These adolescents have increased dependency on parents and there are differences in parenting behaviors seen in healthy groups.

What is the contribution of this paper?

- This study supports literature investigating the relationship between the self-esteem of adolescents with cancer and adolescents' perception of the parenting style of their parents. A high self-esteem was found in 85.5% of the adolescents. The warm-involvement parenting style was found to be associated with positive self-esteem.

What is its contribution to the practice?

- Nursing interventions should be planned regarding self-esteem and perceived parenting styles of adolescents to improve psychological well-being of adolescents with cancer and their families.

domain of quality of life and an adolescent's future expectations.

Parenting styles were well described by Baumrind in the 1960s. In the "permissive" parenting style, parents behave in an undisciplined, accepting and affirmative manner towards the child's behaviors. In the "authoritarian" parenting style, parents attempt to shape, control, and evaluate the behavior of the child with a higher authority. The authoritative (democratic) parent attempts to direct the child's activities but in a rational, and issue-oriented manner.^[18] On receiving a cancer diagnosis, parents face a very hard and painful life experience. Parents may think that their child is vulnerable since they have a life-threatening disease and this may result in changes in parenting styles.^[19,20] Available evidence suggests that specific aspects of parenting occur in the context of a pediatric cancer diagnosis and other chronic diseases during adolescence and differs from the parenting behaviors of healthy children.^[21–23] Parents may indulge their child while they are trying to create a deeper/stronger bond with their child or they may be extremely protective.^[21] Some differences in the parenting role are closer relationships and deeper bonds with the ill child, increased overprotection and indulgence, and decreased discipline of the ill child.^[21,24,25] At the same time, several positive parenting outcomes such as "closeness and cohesion and strengthened relationships for families facing childhood cancer have also been noted.^[26,27]

There is evidence that parenting styles and strategies, including permissive parenting, high criticism and apologetic behavior, are viewed negatively by the child with cancer.^[28] From their studies with parents of children with cancer, Patterson et al. (2004) stated that parents are extremely protective and restrictive, and they are confused about how much freedom to give their children.^[28] In the study of Tillery et al. (2014) it was found that the distress experienced by children with cancer increases in relation to their perception of the extremely protective behaviors of their parents.^[19] Extremely protective parental behavior, which is in contradiction with the growth period of an adolescent, may increase the dependence of the adolescent on their parents and members of the family, and

may negatively affect them in gaining self-determination.^[29,30] The dependence of adolescents on their parents during this growth stage, which requires creating an independent identity separate from their parents, may negatively affect the sense of self-esteem. Meanwhile, if supportive and democratic behavior is displayed while meeting the requirements of the child, this will support the self-determination of the adolescent and will increase their self-esteem.^[31,32]

Although some studies analyzed the parenting style of parents of adolescents with cancer,^[19–21,28] and self-esteem,^[5,14,15] studies have assessed these issues separately. No study has been conducted in Turkey which evaluated the perceived parenting style of adolescents with cancer and the effect on the self-esteem of adolescents. Determination of the factors affecting the self-esteem of adolescents, especially parental attitudes, and planning the interventions are important for the effectiveness of psychosocial care of adolescents. The findings could be a guide for planning interventions that will increase adolescent self-esteem.

This study was performed to assess the relationship between self-esteem and perceived parenting styles of adolescents with cancer.

The research questions were identified as follows:

- 1) What are adolescents' perceptions about parenting styles?
- 2) What are adolescents' perceptions about their self-esteem?
- 3) Is there a relationship between the adolescents' self-esteem and their perceptions about parenting styles?

Materials and Method

Participants

The population of the study was composed of adolescent cancer patients between 12 and 18 years of age, who had undergone treatment in the pediatric hematology and oncology department of a university hospital in Turkey between November 01, 2012–June 01, 2014.

Inclusion and Exclusion Criteria

Inclusion criteria were: a) adolescents who agreed to participate, b) those whose parents approved of the participation, c) those having been diagnosed for at least one month. Exclusion criteria were: a) being Non-Turkish speaking, b) those with cognitive and mental difficulty.

All adolescents and their family who met the criteria were asked to participate in the study. There were 61 adolescents found during the dates of the study. However, one adolescent did not agree to participate, and five adolescents were newly diagnosed. Therefore, 55 adolescents participated in this study.

Measures

Data collection included a Descriptive Characteristics Form re-

lated to the adolescents and families, the "Rosenberg Self-Esteem Scale" and the "Parenting Style Questionnaire" Scale.

The Descriptive Characteristics Form: This form was developed by the authors from the literature.^[15,33,34] The form included 11 questions related to sociodemographic data of the adolescents and their families (age, gender, education status, monthly income, etc.) and five questions related to the diagnosis, the age on receiving the diagnosis, the treatment and disease stage of the adolescents.

Rosenberg Self-Esteem Scale: The RSES scale was developed by Morris Rosenberg in 1963. Turkish validity and reliability of this scale was performed by Çuhadaroğlu in 1986 (Cronbach's alpha = 0.76).^[35] This scale consisted of 11 sub-dimensions. In this study, the "self-esteem" subscale with ten items was used. The self-reporting items were designed to assess positive evaluations of the self. The Turkish version of the scale was used in different research in adolescents.^[34,36-40] Response options ranged from strongly disagree to strongly agree. Five items indicated greater positive self-esteem (e.g., "I feel that I have a number of good qualities"), and five items indicated greater negative self-esteem (e.g., "I certainly feel useless at times"). A negative assessment by the individual was scored as "1" and an affirmative assessment was scored as "0". Total score range was between 0 and 6, with 0-1 indicating high self-esteem, 2-4 indicating moderate self-esteem and 5-6 indicating low self-esteem^[35] Cronbach's alpha was 0.76 in this study.

Parenting Style Questionnaire Scale: The PSQ Scale was used to assess adolescents' perception of their parents' style of parenting.^[41] The Turkish validity and reliability were performed by Yilmaz, 2000.^[42] This self-reporting measure consisted of 26 items that assessed three parenting dimensions: warm-involvement, psychological-autonomy, and monitoring-controlling.^[41] There were nine items (1, 3, 5, 7, 9, 11, 13, 15, 17) in the scale for the warm-involvement dimension, (min-max points 9-36, median 22.5), eight items (19, 20, 21, 22, 23, 24, 25, 26) (for the monitoring-controlling dimension (min-max points 8-32, median 20), and nine items (2, 4, 6, 8, 10, 12, 14, 16, 18) for the psychological-autonomy dimension (min-max points 9-36, median 22.5). The warm-involvement dimension indicated how much the children perceive their parents as endearing, involved and participating; the monitoring-controlling dimension indicated how much they perceived their parents as monitoring and controlling; and the psychological-autonomy dimension indicated the perception of children about how much their parents used a democratic behavior, and how much they encouraged their children to express their individuality. Some examples about the questionnaire items are as follows: Warm-Involvement Dimension: "My parents know my friends", Psychological-Autonomy Dimension: "When I receive low grades from my courses, the way my parents behave makes me feel guilty and embarrassed", and Monitoring-Controlling Dimension, "In general, will your parents allow you to go out with your friends at on a school night?". Continuity (test retest) and Cronbach's alpha coeffi-

cients of the scale for primary school students were as follows respectively; warm involvement scale 0.74 and 0.60, monitoring-controlling sub-scale 0.93 and 0.75, psychological autonomy sub-scale 0.79 and 0.67. Four parenting styles are recognized based on the intersection of median values of warm involvement and monitoring-controlling dimensions in the scale (democratic, permissive, authoritarian and negligent).^[42] In this study, Cronbach's alpha of the scale were as follow; Warm-Involvement scale 0.58, the Monitoring-Controlling sub-scale 0.78 for the Psychological-Autonomy sub-scale 0.62.

Procedure

This study was approved by the institutional review board of Gazi University Hospital, Ankara, Turkey (No: 4877). After providing information, the children and parents gave written consent. The data form related to the disease and treatment of the adolescents was completed by the researchers from patient records. The data collection forms were completed in the department by the adolescents. Adolescents were informed about the form and scales by researchers before data collection. The completion time for the data forms was 20-25 minutes.

Assessment and Analysis of the Data

All analyses were performed using SPSS 16.0 (SPSS for Windows, Version 16.0. Chicago, SPSS Inc. Chicago, IL, USA). Frequency and percentage distribution of data were given. To examine the normal distribution values of the Rosenberg Self-Esteem Scale scores and Parenting Style Questionnaire Scale Scores, the Kolmogorov-Smirnov test was used (RSES $K-S=0.535$, $p=0.001$; PSQ Scale $K-S=0.161$, $p=0.001$). The correlation between the scores of perceived parenting style and self-esteem scale scores was determined through the Spearman's correlation test. Spearman correlation value ranges from +1 to -1. Correlation values over 0.75 were considered as very high, 0.60 to 0.75 as high, 0.40 to 0.60 as moderate, 0.30 to 0.40 as low, and 0.05 to 0.30 as very low.^[43,44] The significance level was accepted as $p < 0.05$ for the statistical tests.

Results

In this study, 61.8% of participants were male and their average age was 14.5 ± 1.8 years, and 45.5% of them were currently attending school. The adolescents' age on being diagnosed was 12.8 ± 3.3 years, and 43.6% of them were diagnosed with a solid tumor, 90.9% of them have undergone chemotherapy treatment, and 50.9% of participants' disease duration varied between 1-6 months (Table 1).

The mean age of the mothers was 39.7 ± 5.7 (Mean \pm Standard Deviation), and the mean age of the fathers was 43.9 ± 4.5 years. Most of the parents had graduated from primary and secondary school and general expenses were more than income in 78.1% of the families (Table 2). When the self-esteem

Table 1. Descriptive characteristics of adolescents (n=55)

Characteristic	Mean±SD	Min-Max
Age	14.5±1.8	12-18
Age at diagnosis	12.8±3.3	3-17
	n	%
Gendar		
Female	21	38.2
Male	34	61.8
Diagnosis		
Leukemia	20	36.4
Solid tumors	24	43.6
Lymphomas	11	20.0
Treatment*		
Chemotherapy	50	90.9
Radiotherapy	10	18.2
Surgery	13	23.6
Disease duration		
1-6 months	28	50.9
7 months - 1 year	10	18.2
13 months - 3 years	7	12.7
>3 years	10	18.2

**The percentage of each item is taken out of n=55. SD: Standard deviation.

of the adolescents was assessed, 85.5% of them were found to have a high self-esteem. There were no children with a low self-esteem, while moderate self-esteem was seen in 14.4% of them. The Rosenberg Self-Esteem Scale mean score of adolescents was found to be 0.702 ± 0.466 (Mean±SD). The Parenting Style Questionnaire Scale mean scores for warm-involvement, psychological-autonomy, and monitoring-controlling dimensions were respectively 30.436 ± 2.872 , 21.927 ± 4.602 , and 21.381 ± 3.076 (Mean±SD) (Table 3).

Table 4 gives the correlation between the PSQ Scale scores of parents and the RSES scores of adolescents. The average self-esteem score (Mean±SD) of the adolescents who perceived the parenting style as warm-involvement was 0.702 ± 0.466 , and for those who perceived the parenting style as psychological-autonomy was 0.632 ± 0.423 , and for those who perceived the parenting style as monitoring-controlling it was 0.701 ± 0.461 . There was no significant correlation between the warm-involvement, the psychological-autonomy, the monitoring-controlling scores and the self-esteem scores of the adolescents ($p > 0.05$).

Furthermore, parenting styles of the parents were examined through the intersection of the warm-involvement and monitoring-controlling dimensions of the Parenting Style Questionnaire Scale. Accordingly, it was determined that 58.2% of the parents displayed democratic behavior, 41.8% of them displayed permissive behavior and there were no parents with negligent and authoritarian behavior.

Table 2. Descriptive characteristics of parents (n=55)

Descriptive	Mean±SD	Min-Max
Mother's age	39.7±5.7	29-58
Father's age	43.9±4.5	34-55
	Sayı	%
Mother's education level		
Elementary and secondary school	42	76.4
High school	8	14.5
University	5	9.1
Father's education level		
Elementary and secondary school	34	59.8
High school	11	20.0
University	10	18.2
Family income		
Income less than expenses	43	78.1
Income equal to expenses	9	16.4
Income more than expenses	3	5.5
Family structure		
Nuclear family	47	85.5
Extended family	8	14.5

SD: Standard deviation.

Table 3. Self-Esteem Levels of Adolescents, Mean Rosenberg Self-Esteem Scale Score and Parenting Style Questionnaire Score (n=55)

	n	%
High self-esteem	47	85.5
Moderate self-esteem	8	14.5
Low self-esteem	0	0.0
	Mean±SD	Min-Max
RSES Score	0.702±0.466	0-2.33
PSQ Warm-Involvement Score	30.436±2.872	23.00-35.00
PSQ Psychological-Autonomy Score	21.927±4.602	14.00-32.00
PSQ Monitoring-Controlling Score	21.381±3.076	14.00-28.00

RSES: Rosenberg Self-Esteem Scale; PSQ: Parenting Style Questionnaire; SD: Standard deviation.

Discussion

The primary aim of this study was to evaluate the relationship between adolescents' perception of the parenting style and the self-esteem of adolescents with cancer. Cancer and its treatment can cause unique challenges for both the adolescents and their parents.^[30] This study provides recent evidence on the effect of adolescent perceptions about parenting styles on their self-esteem.

Adolescence is an important period for physical and psychological changes and a chronic illness like cancer has an im-

Table 4. Relation Between Mean Parenting Style Questionnaire Scores and Mean Rosenberg Self-Esteem Scale Score (n=55)

RSES Scores	n	Mean±SD	Min-Max	r*	p
Warm-Involvement PS	55	0.702±0.466	0-2.33	0.237	0.081
Psychological-Autonomy PS	25	0.632±0.423	0.25-1.58	0.258	0.057
Monitoring-Controlling PS	35	0.701±0.461	0-2.33	-0.088	0.523

RSES: Rosenberg Self-Esteem Scale; PS: Parenting Style; SD: Standard deviation. *Spearman Correlation Test.

pact on their healthy development.^[9] During the formation of identity and the development of self-esteem, adolescents with cancer may feel different from their healthy peers, and demonstrate fear about the changes in their body composition and relations with the opposite sex.^[13] Williamson et al.,^[45] 2010 stated that adolescents having distress by their altered appearance leads to low self-esteem and worries about or complete avoidance of social situations.

Psychological distress like the symptoms of anxiety and low self-esteem could be experienced by some adolescents with cancer.^[46,47] Kyritsi et al.^[48] (2007) studied the self-concept of children and adolescents aged 8-19 with cancer and found negative images among children with cancer compared to the controls. Moreover, Woodgate^[49] (2005) showed that the self-esteem of children with cancer was adversely affected during treatment. Al-Gamal and Long^[12] (2016) found that self-esteem scores of children and adolescents were low and especially in older ages physical ability and functioning effected the perceived self-esteem. However, some children and adolescents with cancer had positive self-concept and felt confident about themselves.^[50] It was reported that children and adolescents with high quality of life and high physical functioning were also likely to exhibit higher physical ability self-esteem.^[12] In our study, the mean self-esteem scores of adolescents with cancer were determined to be moderate to high. Issues like body image disturbances, gender identity, disease characteristics, negative social reactions and social support could affect perceived self-esteem in adolescents with cancer.^[45,51,52]

Parenting styles could change related to the diagnosis of cancer.^[25] Closer relationships and deeper bonds with the ill child is one of the aspects of parenting.^[21] On the other hand, parents could be overprotective and set fewer limits during the illness period.^[28] Further, parenting styles like permissive parenting and apologetic behavior negatively affect the child's psychological functioning.^[53] Parental overprotection leads to child distress.^[54] Ahn and Lee,^[55] (2016) reported that self-concept in adolescents with chronic illness was more negatively affected by negative parenting style than in adolescents without chronic illness. Parental responsiveness was positively associated with child self-esteem.^[56] During treatment, it could be useful to evaluate the change in parental attitudes and its effect on self-esteem from the beginning of treatment. Nurses should inform the parents about adolescent development characteristics and factors affecting self-esteem by explaining the effects of diagnosing cancer on adolescents.

In our study, adolescents with cancer mostly perceived warm-involvement parenting styles in their family. In their study Barakat et al.^[57] (2010) demonstrated that adolescents' scores on parental overprotection were moderate. Tillery et al.^[19] (2014) found that children with cancer did not differ from healthy children in their perceptions of overprotection. Children's level of distress could affect their perception of their parents' particular parenting style.^[54,58] Also parenting styles can change depending on the illness trajectory of the adolescent. Parents' style of approaching the child often fluctuates and will be different at the time of diagnosis, during treatment, after relapse and end-of life care, likewise also the adolescent's self-esteem might fluctuate. Therefore, further studies are needed to strengthen the evidence for perceived parenting styles of adolescents with cancer.

Parenting styles have been known to play an important role on the psychological well-being and self-esteem of adolescents.^[59] In the literature it was indicated that perceived parental warmth had a moderate effect on the quality of life of adolescents.^[60] Dehart, Pelham, & Tennen,^[61] (2006) examined three studies and found that young adults and children who perceived their parents as more nurturing have higher implicit self-esteem than children who perceived their parents as less nurturing. Furthermore, they added that children who perceived their parents' styles as overprotective had lower implicit self-esteem. Parker & Benson^[62] (2004) reported that there is a positive relationship between feeling closeness to parents and positive self-esteem of adolescents. Similar to the literature, in our study, we found that adolescents who perceived warm-involvement parenting styles had a positive association with higher self-esteem although there is no significant relationship. Furthermore, where the monitoring-control parenting style was perceived, it was associated with lower self-esteem in adolescents with cancer.

Implications for Practice

Some significant physical or psychosocial problems and symptoms have been observed in the adolescents during the diagnosis and treatment period. Long-term stays in the hospital and other problems negatively affect adolescent's psychosocial functions and their daily lives. In this period, parental behavior also effects the child's psychological functioning and perceptions of their self-esteem. Parents have closer relationships with their children and could be overprotective or per-

missive during the illness period. Nurses should be aware of psychological functioning of adolescents and evaluate both adolescents and their parents in terms of perceived parental attitudes and inform parents about the adolescent developmental stage characteristics and the effects of receiving a diagnosis of cancer on the adolescent. Determining adolescents' perception of parenting style and self-esteem, nurses can plan education and counseling program for parents about parental attitudes that support the developmental process of the adolescent. These interventions will also be effective in managing the disease process well.

Strengths and Limitations

Providing recent data about the relationship between the self-esteem of adolescents with cancer and parents' styles was the strength of this study. The limitation of the study is that the data reflect a particular sample in one hospital. Thus, the study sample needs to be understood when generalizing the specific findings to other populations and cultures. Another limitation is that the data of the study were collected over five years ago. In addition, the correlations of self-esteem and the parenting styles between adolescents with cancer and healthy control group was not examined. For future studies, it is recommended to use a healthy control group.

Conclusion

The findings of this study showed that the self-esteem of adolescents with cancer was moderate to high. They perceived the parenting styles of their family as mostly warm-involvement and democratic. Furthermore, the warm-involvement parenting style was associated with positive self-esteem. Nurses working in this field are more aware of the importance of psychological interventions for the well-being of children and their families. Therefore, adolescents' psychological adjustment to their appearance, self-esteem, and perceived parenting styles play a significant role in understanding the adolescents' adaptation to this developmental and illness period. The study findings have implications for improving nursing practices for adolescents' physical and psychological well-being and thus facilitate increasing the quality of life of them.

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