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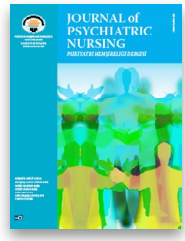

Original Article

Psychosocial Status Assessment Scale For Children Aged 3–6 Years – Parent-Form development: Validity and reliability study

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Abstract

Objectives: This study aimed to develop a psychosocial status assessment scale for children aged 3–6 years – parent form (PSAS 3–6) and determine its validity and reliability.

Methods: The study was conducted on 254 parents having children aged 3–6 years between May 2018 and August 2018. The validity of the scale was tested with content validity and construct validity. In order to determine the reliability of the scale, test-retest, Cronbach Alpha reliability coefficient, and Item Total Score Correlation Coefficient were examined.

Results: The content validity index of the data was between .82 and .97. The confirmatory factor analysis (CFA) compliance indexes of the construct consisting of 6 subdimensions were determined as $X^2/sd=1.447$, RMSEA=.042, CFI=.95, IFI=.95, GFI=.87, and NNFI=.94 with the exploratory factor analysis (EFA). The Cronbach's Alpha reliability score of the scale was found to be .83, the test-retest reliability score was found to be .957, and the Item-Total Score Correlation Coefficient was found to be above r=.20.

Conclusion: The scale is a valid and reliable scale that can be used to assess the psychosocial status of children aged 3–6 years.

Keywords: Children, preschool; psychosocial aspects; reliability and validity.

What is presently known on this subject?

- The study was carried out to diagnose children in the 3–6 age group psychosocially at an early stage and to obtain a valid and reliable measurement tool. No valid and reliable measurement tool has been found in the literature that evaluates children in the 3–6 age group from a psychosocial perspective.

What does this article add to the existing knowledge?

- A psychosocial status assessment scale-parent form (PSAS 3–6) was developed for children aged 3–6, and its validity and reliability were tested in this study. Thus, it is thought that it will contribute to the literature.

What are the implications for practice?

- The psychosocial status assessment scale-parent form for children aged 3–6 is a valid and reliable measurement tool suitable for clinical and non-clinical use by professionals who provide health and educational services to children and work with children.

The 3–6 age period has an essential role in the physical, psychological, cognitive, and social development of children in terms of developmental stages.[1,2] During this period, children acquire many new skills in terms of physical, emotional, social, motor, speech, and problem-solving.[3] The skills acquired affect the entire life of the child, from professional success to academic performance in the following years.[2] According to Erikson,[3] this age period is the initiative versus guilt stage. During this period, the children begin to believe strongly in themselves and try to discover what they can do. During this period, children boldly plan, design, and implement their initiatives. They take great pride in achieving the goals they set ('I did it'). Children who recognise different roles and identify with them attempt to play the roles they aspire to not only

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in their games but also in real life.[4] Therefore, environments that support children's entrepreneurship should be prepared. Because children define themselves by what they can do and achieve. A sense of guilt may develop in children if parents punish entrepreneurial behaviours in them.[3] Freud[5] calls the 3–6 age period the phallic stage. Children start to enter social environments during this period. They compare themselves to others and become aware of their gender. They discover their bodies and genitals. They want to replace the same-sex parent to attract the opposite-sex parent. During this period, concepts such as both sexual identity and conscience/morality/superego are formed. If appropriate approaches are not taken for children during this period, some psychosocial problems may develop.

Psychosocial problems in children in the phallic stage can be familial, biological, physical, and psychological.[6] The most common psychosocial problems in children aged 3–6 are sleep problems, introversion, attention problems, aggressive behaviours, hyperactive behaviours, regression behaviours, eating disorders, anger, shyness, jealousy, fear, separation anxiety, and irritability.[6–9] It is essential to assess the psychosocial status of children, to determine their needs, and to make the right intervention accordingly.[10] Early diagnosis of psychosocial problems makes it easier to solve the problem at the right time. Psychosocial problems may be more difficult to solve at later ages and may lead to different behavioural and emotional problems.[11–13] Early diagnosis of psychosocial problems will enable the determination of how children are affected by their situation and their responses to them.[14] In recent years, awareness of diagnosing childhood psychosocial problems has been increasing.[11–13]

Various scales have been developed at the international level and in Turkey to detect psychosocial problems in children, and studies have been conducted to determine the validity and reliability of these scales.[2,14,15] However, no scale developed to evaluate the psychosocial status of children in the 3–6 age group was found. Early detection of psychosocial problems experienced by children in the 3–6 age group can be challenging due to their developmental characteristics. Therefore, a valid and reliable measurement tool that can assess the psychosocial status of children in the 3–6 age group is an essential requirement. Nurses will be able to evaluate children in the 3–6 age group in a much healthier way by using a valid and reliable measurement tool. Similarly, nurses will be able to determine the early psychosocial effects of illness and hospitalisation on the child. This study aims to develop the Psychosocial Status Assessment Scale-Parent Form for 3–6 Years Old Children (PSAS 3–6) to determine the psychosocial status of children in the 3–6 age group and to test the validity and reliability of the scale.

Materials and Method

Research Population and Sample

This methodological study was conducted between May 2018 and August 2018. The population of the research was composed of 254 parents of children in the 3–6 age group who attend six kindergartens in a city center in Central Anatolia. The sample size was determined based on the requirement to take between 5 and 10 times the number of items on the scale.[16] The sample size is a minimum of 175 people for 35 items. To increase the reliability of the statistical analysis, no sample was selected from the population, but instead, 254 parents who agreed to participate in the study and met the inclusion criteria formed the sample of the research. The data of the study were collected by a face-to-face interview method from parents who came to pick up their children from kindergartens. The parents were met in the waiting room of the kindergartens, necessary information was provided to them about the purpose of the study, and their consent was obtained with a consent form. Data collection tools were applied by the researcher in 10–15 minutes.

The inclusion criteria for children in the study are as follows: being in the 3–6 age group, not having any invasive procedure, and not having any chronic diseases. The inclusion criteria for the parents were determined as being able to read and write, speak Turkish, and be willing to participate in the study.

Research Question

Is the Psychosocial Status Assessment Scale-Parent Form for 3–6 Years Old Children (PSAS 3–6) developed by the researchers a valid and reliable measurement tool for determining the psychosocial status of children in the 3–6 age group?

Data Collection

Preparation of Data Collection Tool: The data collection tool (PSAS 3–6) was developed by researchers with the support of the literature.[15,17–22] An item pool of 36 items was created to assess the psychosocial status of children aged 3–6. This item pool was evaluated by 10 faculty members (four experts in pediatric nursing, three experts in child development, and three experts in psychiatric nursing) in accordance with the Davis technique. In line with the expert opinions, four items ('My child closets himself in his room [He/she wants to be alone]'; 'My child does not obey me'; 'My child does not want to leave me even for a short time'; and 'My child always follows me while walking around the house') were removed from the scale and three new items ('My child's speech fluency is impaired'; 'My child has tics such as blinking and teeth grinding'; and 'My child has difficulty expressing himself/herself') were included in the scale. The expressions in six of the scale items were changed as follows: 'My child wants someone to be with him/her while he/she sleeps' instead of the expression 'My child wants to sleep with me/with us'; 'My child overreacts to me leaving him/her' instead of the expression 'My child react violently if he/she leaves the house without me'; 'My child needs help even with what he/she can do by herself/himself' instead of the statement 'My child needs constant help while dealing with something'; 'My child always wants to attract at-

tention' instead of the expression 'My child makes a lot of effort to get my attention'; 'My child behaves extremely anxiously' instead of the expression 'My child is worried even when the words hospital/doctor/nurse are uttered'; and 'My child refuses to sleep at night' instead of the statement 'My child refuses to go to bed at night'. The 35-item draft scale, which was prepared after expert opinion, was applied to 10 parents who have similar characteristics with the target parent population, covering approximately 5% of the sample size.[23] There were no problems with the parents' understanding of the draft scale. Following the expert opinions and pre-application, we decided that the draft scale was applicable.

Data Collection Tool

The data of the study were collected using the Descriptive Characteristics Form and PSAS 3–6. The Descriptive Characteristics Form consists of two parts. The first section contains information about parents. This section contains eight questions regarding the age, employment status, educational status, economic status, and presence of chronic illness of the mother and father. The second part includes six questions about the child: gender, date of birth, number of siblings, birth order in the family, hospital experience, and health problems.

The PSAS 3–6 consists of 31 items. There are 5-Likert type options for each item in this form applied by the researcher: 0 – 'never', 1 – 'rarely', 2 – 'sometimes', 3 – 'often', 4 – 'always'. Based on the score given for each item, a minimum of 0 and a maximum of 124 points can be obtained from the questionnaire. A lower total score of the scale indicates that there is no risk for psychosocial problems for the child, and a higher score indicates that there is a risk for psychosocial problems.

Data Analysis

Data on the descriptive characteristics of the participants were evaluated by number, percentage, minimum, maximum, mean, and standard deviation. The SPSS 21.0 (Statistical Package of the Social Sciences) program was used in the evaluation of the data and exploratory factor analysis. Confirmatory factor analysis was performed with the AMOS 21.0 (Analysis of Moment Structures) program. While evaluating the data, we considered $p<0.05$ to be statistically significant.

The content validity of the scale was tested using the Davis technique. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed to test the construct validity. The suitability of the scale for EFA and CFA was decided according to The Kaiser-Meyer-Olkin (KMO) and Bartlett's tests. The reliability of the scale was evaluated using the Cronbach's Alpha reliability coefficient, Item-Total Score Correlation Coefficient, and Test-Retest analysis (Table 1).

Ethical Dimension of the Research

Written permissions were obtained from the Ethics Committee of the Gazi University Institute of Health Sciences (Meeting number 04 on 08 May 2018, memo no 77082166-302.08.01-) and the Ethics Committee of the Provincial Directorate of National Education (Memo dated 13 June 2018 and numbered 5727673–60.04-E.11611175) where the study was conducted. In addition, parents were informed that the information obtained from the study would be kept confidential and that they could withdraw from the study whenever they wanted, and written consent was obtained from the parents who agreed to participate in the study.

Results

Characteristics of The Participants

Two hundred fifty-four parents are included in the study. The average age of the 254 mothers participating in the study is 32.71±5.22 (min: 22-max: 47 years), while the mean age of the 254 fathers is 36.47±6.00 (min: 24-max: 65 years). Overall, 39.4% of the children (100 children) are 36–48 months old, while 30.7% (78 children) are 49–60 months and 29.9% (76 children) are 61–72 months old. Of the children, 52.4% (133 children) are girls, and 47.6% (121 children) are boys. Regarding work, 44.5% of the mothers (113 mothers) and 93.7% of the fathers (238 fathers) work in a job. Regarding education, 26% of the mothers (66 mothers) and 35.4% of the fathers (90 fathers) are high school graduates. According to their own statements, 79.5% of the families (202 parents) stated that their economic income is equal to their expenses. Regarding the children, 47.2% (120 children) have a sibling, and 42.1% (107 children) are the first children in the family (Table 2).

Table 1. Validity-reliability analysis of the Psychosocial Status Assessment Scale-Parent Form for 3-6 years old children

Validity analysis	Content validity	The Davis Technique
	Construct validity	KMO (sampling adequacy)
		Barlett (sample test size)
		Exploratory factor analysis
		Confirmatory factor analysis
Reliability analysis	Internal consistency	Cronbach alpha
		Item-total score correlation
	Stability	Test-Retest

Table 2. Descriptive characteristics of children and parents (n=254)

Descriptive characteristics	Min	Max	Avg±SD
Mother's age	22	47	32.71±5.22
Father's age	24	65	36.47±6.00
	n	%	
Gender			
Girl	133	52.4	
Boy	121	47.6	
Child age group			
35–48 months	100	39.4	
49–60 months	78	30.7	
61–74 months	76	29.9	
Mother's employment status			
Employed	113	44.5	
Unemployed	141	55.5	
Mother's educational status			
Illiterate	3	1.2	
Elementary	44	17.3	
Secondary	40	15.7	
High school	66	26.0	
Two-year degree	27	10.6	
Bachelor's degree	53	20.9	
Postgraduate	21	8.3	
Father's employment status			
Employed	238	93.7	
Unemployed	16	6.3	
Father's educational status			
Elementary	28	11.0	
Secondary	29	11.4	
High school	90	35.4	
Two-year degree	23	9.1	
Bachelor's degree	68	26.8	
Postgraduate	16	6.3	
Economic status			
Low	28	11.0	
Middle	202	79.5	
High	24	9.4	
Number of siblings			
No siblings	62	24.4	
1 sibling	120	47.2	
2 siblings	71	28.0	
3+ siblings	1	4.0	
Birth order in the family			
1	107	42.1	
2	91	35.8	
3+	56	22.0	

Min: Minimum; Max: Maximum; Avg: Average; SD: Standard deviation.

Table 3. Kaiser-Meyer-Olkin (KMO) and Bartlett Test Results of the Psychosocial Status Assessment Scale-Parent Form for 3–6 years old children (n=254) (p<0.05)

KMO	.809
Bartlett's Test	
Chi-Square	63
Degree of freedom	465
p	.000

Content Validity

The 36-item draft scale was tested in terms of content validity. Experts were asked to evaluate each item of the draft scale using the Davis technique. According to the Davis (1992) technique, a grading was made as follows: (a) 'Very Suitable', (b) 'Suitable but minor changes are required', (c) 'The item needs to be made suitable', and (d) 'The item is not suitable'. The content validity index (CVI) was obtained by dividing the number of experts who gave 3–4 points according to this technique by the total number of experts. Items with a CVI above 0.80 are considered valid in terms of content validity.[24,25] The CVI of the 35-item draft scale, which was evaluated following expert opinions, ranged from 0.82 to 0.97.

Construct Validity

The Kaiser-Meyer-Olkin (KMO), Bartlett's test, EFA, and CFA were used for the construct validity of the study. A KMO >0.50 and a statistically significant Bartlett's test (p<0.05) were accepted as prerequisites to continue factor analysis.[26] The goodness of fit index (GFI: 0.90), adjusted goodness of fit index (AGFI: 0.90), comparative fit index (CFI: 0.90), and estimated root mean square error (RMSEA: 0.08) were used for CFA evaluation.[27]

The KMO was found to be 0.80, and Bartlett's test was found to be p<0.05 in our study. In line with these results, we concluded that the items in the scale were suitable for factor analysis (Table 3). EFA was applied to explore sub-dimensions thought to affect the psychosocial status of children aged 3–6. At this stage, to reduce the inter-dimensional variances and increase the total variance explanation rate, the explanatory factor analysis was completed by removing four question items with a factor load of less than 0.4: 'My child wants someone to be with him/her while he/she sleeps', 'My child's bowel movements started to be irregular', 'My child eats her/his nails', and 'My child sucks fingers'.

As a result of the exploratory factor analysis, six factors were obtained that explain 45.4% of the total variance with an eigenvalue above 1 (Table 4). Thus, the scale reached its final version consisting of 31 items and six sub-dimensions. Cronbach-alpha values were calculated for each sub-dimension and total resulting from EFA. The reliability values of the six sub-dimensions determined were found to be 0.777 (Factor 1), 0.702 (Factor 2), 0.600 (Factor 3), 0.602 (Factor 4), 0.682 (Factor 5), and 0.591 (Factor 6), respectively (Table 5). The reliability value for the whole scale was calculated as 0.830. The first level CFA was used to examine whether the 6-factor structure, which was finalised with the help of the AMOS program and based on EFA, was verified or not. In our study, fit indices were found as X^2/df (adjusted chi-square)=1.447, RMSEA=0.042,

Table 4. Factor Loadings as a Result of Exploratory Factor Analysis of the Psychosocial Status Assessment Scale-Parent Form for 3-6 years old children

	Item name	Factor loadings	Eigenvalue	*Variance Explained (%)
F1	It is difficult to get my child to talk to me.	.707	6.014	19.400
	My child's speech fluency is impaired.	.637		
	It is difficult to get my child's attention.	.621		
	My child is indifferent to what is happening around his/her.	.611		
	My child can spend his time doing nothing and sitting or lying down.	.538		
	My child has difficulty remembering events.	.531		
	My child has difficulty expressing herself/himself.	.496		
	My child harms herself/himself.	.458		
	My child behaves extremely anxiously.	.426		
	My child exhibits disturbing behaviors in social situations.	.421		
F2	My child always wants to attract attention.	.639	2.112	6.813
	My child is hyperactive.	.580		
	My child has tantrums.	.551		
	My child expresses her/his wishes by crying.	.548		
	My child refuses to sleep at night.	.484		
	My child exhibits aggressive behavior.	.464		
	My child damages their toys/household items.	.423		
F3	My child has bad dreams.	.691	1.675	5.404
	My child wakes up crying.	.622		
	My child is very startled in her/his sleep.	.621		
	My child is afraid of the dark.	.508		
	My child is afraid of going to the toilet alone during the day.	.401		
F4	My child has a diminishing appetite.	.845	1.479	4.771
	My child gives us a hard time when she/he eats.	.797		
	My child eats too much.	.409		
F5	My child started wetting herself/himself during the day.	.783	1.476	4.761
	My child started wetting her/his bed during the night.	.761		
F6	My child looks extremely shy around strangers.	.598	1.331	4.294
	My child overreacts to me leaving him/her.	.511		
	My child has tics such as blinking and teeth grinding.	.489		
	My child needs help even with what he/she can do by herself/himself.	.424		

*Total variance explained: 45.4%

Table 5. Results of reliability analysis based on the total of the Psychosocial Status Assessment Scale-Parent Form for 3–6 years old children and its sub-dimensions

	Cronbach Alpha
Total scale	0.830
Factor 1	0.777
Factor 2	0.702
Factor 3	0.600
Factor 4	0.602
Factor 5	0.682
Factor 6	0.591

CFI=0.95, IFI=0.95, GFI=0.87, and NNFI=0.94 (Table 6). Examining the coefficients indicating the relationship between the observed variables and the factors of the model showing the factorial structure of this scale, we concluded that all the coefficients were sufficient. Considering the compliance statistics calculated with CFA, we decided that the structure of the scale previously determined was highly compatible with the collected data.[27]

Reliability

The internal consistency of the PSAS 3–6 was assessed by using Cronbach's Alpha reliability coefficient and Item-Total Score Correlation Coefficient. The Cronbach Alpha reliability coefficient of the scale was determined to be 0.83 in our study. The scale was found to be highly reliable based on the result of this scoring. Item-Total Score Correlation Coefficient was found above r=0.20.

Table 6. Confirmatory Factor Analysis Fit Indexes of the Psychosocial Status Assessment Scale-Parent Form for 3–6 years old children

Fit Indexes	
X^2/sd	1.447
RMSEA	0.042
CFI	0.95
IFI	0.95
GFI	0.87
NNFI	0.94

*X^2/sd: Adjusted chi-square; RMSEA: Root Mean Square Error of Approximation; CFI: Comparative Fit Index; IFI: Incremental Fit Index; GFI: Goodness of Fit Index; NNFI: Non-normed Fit Index.

Table 7. 3–6 Test-retest correlation analysis of the Psychosocial Status Assessment Scale-Parent Form for 3–6 years old children (n=70)

Application time of the scale	n	Mean	SD	r	p
First application	70	25.50	13.73	.957	.000*
Second application	70	25.55	13.66		

A test-retest analysis was used to determine the scale stability. For test-retest analysis, the same scale was applied to 70 people with an interval of one week. For the reliability of the test, the requirement to be >0.70 was taken as a basis.[27] The test-retest correlation coefficient obtained was found to be 0.95. Based on this result, it can be said that there is a highly significant relationship between both measurement results, and the measurement tool is reliable (Table 7).[28]

Discussion

The Psychosocial Status Assessment Scale-Parent Form (PSAS 3–6) was developed to assess the psychosocial status of children aged 3–6, and its validity and reliability were tested in this study. A valid and reliable scale aiming to evaluate the psychosocial status of children in the 3–6 age group was achieved. The content of the scale was created as a result of the literature research and was finalised as a result of expert opinions. As a result of the findings obtained, we concluded that it is valid and reliable. The PSAS 3–6 is a 31-item scale that can be filled out by parents and primary caregivers.

A new measurement tool is required to be valid and reliable for it to meet certain standards and produce appropriate information.[16] Validity and reliability are the two most important criteria used in the evaluation of a measurement tool. Validity is related to the extent to which the measuring tool measures what it aims to measure.[29] The first criterion of validity methods is content validity. Content validity is used to assess whether a research tool fully covers the concept it wants to measure. Expert opinion is required for content validity.[30] In our study, 10 experts were consulted using the Davis technique, and the draft scale was restructured in line with expert opinions. Thus, the draft scale evaluated by experts according to the Davis technique reached its new 35-item form. According to the Davis technique, CVI ranged between 0.82 and 0.97. According to this finding, the content validity of the study was found suitable.[25] The second criterion of validity methods is construct validity. Construct validity is considered to evaluate to what extent a research tool measures the structure it wants to measure.[30] The most commonly used method in determining construct validity is factor analysis. As a result of the factor analysis performed in our study, four items with a factor load of less than 0.4 were removed from the scale. Thus, the scale was restructured to consist of 31 items. KMO was used to measure sampling adequacy, and Bartlett's test was used to evaluate the homogeneity of variances. Based on the findings, we concluded that the sample size was sufficient, and the variances were homogeneous.

The ability of a measurement tool to make the same measurement continuously and to measure it consistently is related to reliability.[16,29] The criteria used within the scope of reliability are internal consistency and stability. The methods used to evaluate the internal consistency of a measurement tool are item-total score correlation coefficient, split-half reliability, Kuder-Richardson coefficient, and Cronbach's α value.[30] Cronbach's alpha is one of the most commonly used reliability criteria.[31] It allows us to measure the reliability of a measurement tool objectively. Acceptable Cronbach's alpha reliability coefficient ranges between 0.70 and 0.90.[29] It can be said that the reliability of the items is higher as the Cronbach alpha coefficient approaches 1.[32] The total Cronbach's alpha reliability coefficient of the scale was found to be 0.83 in our study. The methods used to evaluate the internal consistency of a measurement tool are the test-retest method and parallel forms method.[30] The parallel forms method is a method used to determine linguistic equivalence.[33] The test-retest method was used in our study, and the correlation coefficient was found to be 0.95. This shows that our scale is not affected by time and measures the structure with the same stability regardless of time.

Limitations of the Study

The fact that the total variance explained in the factor analysis is less than 50% and the time required for test-retest is less than two weeks constitute the limitations of our study.

Conclusion

It was concluded that the 31-item scale, which was created based on the findings obtained as a result of the reliability and validity studies, is a valid and reliable scale that can be used to evaluate the psychosocial status of children aged 3–6. This form can be used to assess the psychosocial status of children in the 3–6 age group. Nurses, social workers, psychologists,

teachers, and academics working with children aged 3 to 6 are recommended to use this scale.

Conflict of interest: There are no relevant conflicts of interest to disclose.

Peer-review: Externally peer-reviewed.

Authorship contributions: Concept – E.G.Ş.; Design – N.A.; Supervision – N.A.; Fundings - E.G.Ş., N.A.; Materials – E.G.Ş.; Data collection &/or processing – E.G.Ş.; Analysis and/or interpretation – E.G.Ş., N.A.; Literature search – E.G.Ş.; Writing – E.G.Ş.; Critical review – E.G.Ş., N.A.

References

1. Dereli E. Montessori eğitim programının çocukların psikososyal gelişimlerine ve sosyal problem çözme becerilerine etkisinin incelenmesi. Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi 2017;18:135–53.
2. Willard VW, Cox LE, Russell KM, Kenney A, Jurbergs N, Molnar AE Jr, et al. Cognitive and Psychosocial Functioning of Preschool-Aged Children with Cancer. J Dev Behav Pediatr 2017;38:638–645.
3. Erikson EH. Childhood and Society. 2th ed., New York: Norton; 1963.
4. Batra S. The psychosocial development of children: Implications for education and society - Erik Erikson in context. Contemp Educ Dialogue 2013;10:249–78.
5. Freud S. Introductory Lectures on Psychoanalysis. (Strachey J, Translation Editor). London: Penguin Books; 1991. (Original study, publication date 1963).
6. Olcay O. Bazı kişisel ve ailesel değişkenlere göre okulöncesi dönemdeki çocukların sosyal yetenekleri ve problem davranışlarının analizi. [Yayınlanmamış Yüksek Lisans Tezi] Konya: Selçuk Üniversitesi Sosyal Bilimler Enstitüsü; 2008.
7. Schoemaker K, Mulder H, Deković M, Matthys W. Executive functions in preschool children with externalizing behavior problems: a meta-analysis. J Abnorm Child Psychol 2013;41:457–71.
8. Ulu Y. Okul öncesi 3-6 yaş grubu çocuklarının davranış problemleri ve anne-baba tutumlarının incelenmesi. [Yayınlanmamış Yüksek Lisans Tezi] Mersin: Çağ Üniveristesi Sosyal Bilimler Enstitüsü; 2018.
9. Power NM. Postoperative behaviour changes and pain in children, 2 to 12 years, following inpatient and day case surgery [Unpublished Doctoral Thesis]. London: University College London, GOS Institute of Child Health; 2010.
10. Klein-Tasman BP, Lee K. Problem behaviour and psychosocial functioning in young children with Williams syndrome: parent and teacher perspectives. J Intellect Disabil Res 2017;61:853–65.
11. Klein Velderman M, Crone MR, Wiefferink CH, Reijneveld SA. Identification and management of psychosocial problems among toddlers by preventive child health care professionals. Eur J Public Health 2010;20:332–8.
12. Theunissen MH, Vogels AG, Reijneveld SA. Early detection of psychosocial problems in children aged 5 to 6 years by preventive child healthcare: has it improved? J Pediatr 2012;160:500–4.
13. Brugman E, Reijneveld SA, Verhulst FC, Verloove-Vanhorick SP. Identification and management of psychosocial problems by preventive child health care. Arch Pediatr Adolesc Med 2001;155:462–9.
14. Üstün G, Ersan E, Kelleci M, Turgut H. Hastanede yatan çocuklarda psikososyal semptomların bazı değişkenler açısından incelenmesi. Cumhur Med J 2014;36:25–33.
15. Marquer C, Barry C, Mouchenik Y, Hustache S, Djibo DM, Manzo ML, et al. A rapid screening tool for psychological distress in children 3-6years old: results of a validation study. BMC Psychiatry. 2012;12:170.
16. Erdoğan S. Araştırmaya giriş ve araştırma süreci. In: Erdoğan S, Nahcivan N EN, editors. Hemşirelikte Araştırma: Süreç, Uygulama ve Kritik İstanbul: Nobel Tıp Kitabevleri; 2015. p. 216–7.
17. Başbakkal Z, Sönmez S, Sen Celasin N, Esenay F. 3-6 yaş grubu çocuğun akut bir hastalık nedeniyle hastaneye yatışa karşı davranışsal tepkilerinin belirlenmesi. Uluslararası İnsan Bilim Derg 2010;7:456–68.
18. Hilly J, Hörlin AL, Kinderf J, Ghez C, Menrath S, Delivet H, et al. Preoperative preparation workshop reduces postoperative maladaptive behavior in children. Paediatr Anaesth 2015;25:990–8.
19. Jenkins BN, Kain ZN, Kaplan SH, Stevenson RS, Mayes LC, Guadarrama J, et al. Revisiting a measure of child postoperative recovery: development of the Post Hospitalization Behavior Questionnaire for Ambulatory Surgery. Paediatr Anaesth 2015;25:738–45.
20. Kostak MA, Kocaaslan EN, Bilsel A, Mutlu A. Hastanede yatarak tedavi gören 3-6 yaş çocukların uyku alışkanlıklarının belirlenmesi. Sağlık Bilim ve Meslekleri Derg 2016;3:123–32.
21. Yavuz M, Demir T, Dogangün B. Sünnetin çocuk ruh sağlıği üzerine etkisi: Gözden geçirme çalışması. Türk Psikiyatr Dergisi 2012; 22:1–9.
22. Yuki K, Daaboul DG. Postoperative maladaptive behavioral changes in children. Middle East J Anesthesiol 2011;21:183–9.
23. Büyüköztürk Ş. Anket geliştirme. Türk Eğitim Bilimleri Dergisi 2005;3:133–51.
24. Yurdugül H. Ölçek gelistirme calismalarinda kapsam geçerligi icin kapsam gecerlik indekslerinin kullanilmasi. XIV Ulusal Egitim Bilimleri Kongresi; 2005. p. 1–6.
25. Zamanzadeh V, Rassouli M, Abbaszadeh A, Majd HA, Nikanfar A, Ghahramanian A. Details of content validity and objectifying it in instrument development. Nurs Pract Today 2015;1:163–71.
26. Moghadam M, Salavati M, Sahaf R, Rassouli M, Moghadam M, Kamrani AAA. The Persian Version of the "Life Satisfaction Scale": Construct Validity and Test-Re-Test Reliability among Iranian Older Adults. J Cross Cult Gerontol 2018;33:121–34.
27. Iyama S, Maeda H. Development of the Self-Regulated Learning Scale in Clinical Nursing Practice for nursing students: Consideration of its reliability and validity. Jpn J Nurs Sci 2018;15:226–36.
28. Donmez YC, Ozbayır T. Validity and reliability of the 'good perioperative nursing care scale' for Turkish patients and nurs-

es. J Clin Nurs 2011;20:166–74.
29. Tavakol M, Dennick R. Making sense of Cronbach's alpha. Int J Med Educ 2011;2:53–5.
30. Heale R, Twycross A. Validity and reliability in quantitative studies. Evid Based Nurs 2015;18:66–7.
31. Bonett DG, Wright TA. Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. J Organ Behav 2015;36:3–15.
32. Kartal SK, Dirlik EM. Geçerlik kavramının tarihsel gelişimi ve güvenirlikte en çok tercih edilen yöntem: Cronbach Alfa Katsayısı. Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Derg 2016;16:1855–79.
33. Karakoç FY, Dönmez L. Ölçek geliştirme çalışmalarında temel ilkeler. Tıp Eğitimi Dünyası 2014;13:39–49.