

Assoc. Prof.Dr. Özcan Sezer¹
Inonu University
Malatya, Turkey

Original scientific paper
UDC: 378.016
DOI: 10.17810/2015.91

=====

DEVELOPING A SCALE OF ADOLESCENTS' PERCEPTIONS TOWARD ADULTS: VALIDITY AND RELIABILITY STUDIES

Abstract: This study introduced the Scale of Adolescents' Perceptions Toward Adults (SAPTA), which was developed in Turkey. The validity and reliability study for SAPTA was performed using the data obtained from 1008 high school students whose ages ranged between 14 and 18. The internal consistency coefficient calculated with the Explanatory Factor Analysis (EFA) data obtained from 381 students was found to be 0.78 for the sub-scale named "Admired Adult Characteristics," 0.66 for the sub-scale named "Disturbing Adult Characteristics," and 0.69 for the entire scale. The internal consistency coefficient calculated with the Confirmatory Factor Analysis (CFA) data obtained from 627 students was found to be 0.82 for the sub-scale named "Admired Adult Characteristics," 0.68 for the sub-scale named "Disturbing Adult Characteristics," and 0.72 for the entire scale. The Spearman-Brown split-half test reliability value was found to be 0.74. The results of the analysis indicate that SAPTA has psychometric characteristics sufficient for determining the perceptions of adolescents, whose age range between 14 and 18 years.

Key words: High school students, perceiving adults, scale development.

1. Introduction

Humans socially gather and meet one other throughout their lives. Humans establish different relationships as they interact with one another. Children, for example, establish their first social relationships with their parents. They establish their next social relationships with their relatives and acquaintances. According to Morgan (1995), establishing social relationships with other people is one of the complicated routines of the social world that is significant for social development. Thus, individuals need to acquire many social behaviors to establish and maintain social relationships with other individuals. Sharot (2017) states that people are born with an inclination to perform learning both instinctively and automatically through social interactions. Individuals acquire new information and experiences regarding social life, and they maintain this information throughout their development (Miller, 2008). People generally provide causal explanations for physical stimuli (anything that can be understood with the senses) and human behaviors (Hogg & Vaughan, 2007). People add what they see and learn to their knowledge and experiences as they grow older, and they become more skillful over time. The meanings of their experiences become deeper, and people become more knowledgeable about the functions of daily life elements and more competent in perceiving the purposes of other people (Jersild, 1979). In accordance with these perceptions, individuals

¹ozcan.sezer@inonu.edu.tr

attempt to revise their behaviors and relationships with their environment.

The way people perceive themselves and others is one of the basics of the Social Cognition approach. The Social Cognitive approach examines how people interpret, remember, and use the information they gather regarding those around them, as well as how they solve relevant issues. People categorize social stimuli, make the social world meaningful to themselves, and find solutions to issues. To do so, they use various social schemes. Cognitive social schemes are categorized into three groups: personal schemes, role schemes, and event schemes. The schemes used by an individual who is forming an impression of other people indicate how the information on these people will probably be used (Donmez, 1992). The schemes will determine the social perception of the people and thus the social relationships. Social perception is an individual's concept of his or her own impressions and assumptions about other people. The most significant source of information for social perception consists of non-verbal actions such as mimicking, gestures, and tone of voice (Aronson, Wilson & Akert, 2012). Conversely, personal perception indicates the action of predicting the personality of individuals, considering their characteristics and behaviors (Plotnik, 2009). In other words, social beliefs such as information about the past, expectations, assumptions, hypotheses, and behaviors and appearance of the perceived person affect the perception process (Jussim, 1991).

Children get their first significant impressions from their families and acquaintances as they grow up, and some of these impressions leave deep traces on their lives (Orvin, 1997). The responsibilities of parents while raising their children include providing positive care for the children and guiding them to be competent individuals (Santrock, 2015). Children are influenced by the experiences of the people, particularly their parents, around them. Therefore, they can develop different ideas depending on the different experiences they observe. Children can consider their parents models in various aspects of life. They also learn to trust people other than their parents less and to participate the social life less frequently (Sharot, 2017). Parents, relatives, friends, and school personnel are all significant people in an adolescent's life (Furman & Buhrmester, 1985).

Behavioral comparisons are mostly performed by children at the age of 8-9. Their psychological attitudes start to be more common after the age of 10. Following adolescence, individuals' focus moves from the appearance to distinctive characteristics and remarkable comparisons while describing other people. In addition, children focus on where they are and on physical elements during the pre-adolescence period, but they start to consider future possibilities during adolescence (Bee & Boyd, 2009).

Cognitive actions at a higher level are observed in adolescence. The ability to consider and discuss abstract concepts indicates that adolescents can think about their beliefs, attitudes, values, and targets from a critical viewpoint (Plotnik, 2009). At the beginning of adolescence, an average person is not knowledgeable enough to make appropriate and mature decisions. Adults guide adolescents to ensure that they can make decisions in areas where their knowledge is limited. Adolescents gradually start to make mature decisions over time (Santrock, 2015). However, it is fair to state that there is an undeniable tension between the adolescent and adult generations (Steinberg, 2017).

People can evaluate different issues in their daily lives. One of these issues may be related to the questions of who the people are that are met more or less frequently, and how they are

perceived. Such evaluations may be based on the impression these people leave, and may also be based on relevant subjects and information obtained from other sources.

A study (Tilton-Weaver, et al. 2001) demonstrate that adolescents find adults self-confident, hardworking, lazy, selective in their actions, competent in making mature decisions and determining what is correct or wrong, and boring. Another study (Arnett & Tabor, 1994; Scheer & Palkovitz, 1994) suggests that adolescents regard adults as responsible or independent.

Greene, Wheatly&Aldava (1992) found in their study conducted with twelfth grade students and university students that adolescents consider adults successful individuals who are financially independent, able to make their own decisions, and have the potential to commit themselves to their lives. University students, on the other hand, think of adults as responsible individuals who are able to understand themselves, who are emotionally mature, well-educated, agreeable, and unselfish. The results of that study also indicate that perception toward adults changes with age.

Certain studies state that adults are people who take responsibility for their own actions and decide their own values and beliefs. The studies by Arnet (1994) and Giles, et al. (2003) suggest that hierarchical relationships and respect for older generations influences the perception of adolescents toward adults. Adolescents' perception of known adults is more positive than their perception of unknown adults. Known adults are perceived to be kinder and more supportive, complimentary, and interesting. Children find themselves obliged to show respect to adults, who are perceived as despotic persons with low intelligence levels who do not listen to and approve the young individuals. Carver et al. (2005) examined how parents and children perceived the people around them and found that children have more positive perceptions than parents toward those people. Another study which examined adolescents' ideas about adults indicated that adults are generally seen as physically and mentally weak individuals who have lost their attractiveness (Palmore, 2005). In addition, the literature includes evidence demonstrating that adolescents' perceptions toward adults change based on gender, stereotypes, beliefs, and expectations (Baker &Galambos, 2005).

The relevant literature in Turkey has no studies of how adolescents perceive adults. Understanding adolescents' ideas about adults may help them establish and maintain a healthier relationship with adults. In adolescence, when biological and social changes take place, awareness of adolescents' ideas about adults is significant for determining adolescents' relationships with the people around them. Thus, developing an evaluation tool for specifying adolescents' perceptions toward adults is significant.

Adolescents are greatly influenced by both their inner worlds and the people around them because of their physical and mental status in this period (Gerrig& Zimbardo, 2013). The presence of competent and supportive adults is believed to be one of the factors affecting adolescents' development (Santrock, 2015). The characteristics of the adults who are around the adolescents, who are inexperienced in many issues and therefore need the adults' assistance occasionally, are significant. These adults, with their positive characteristics, help the adolescents get ready for life, but adults with negative characteristics may leave traces that may be catastrophic for the adolescents.

Adolescents' perceptions and evaluations of the adults around them, and any comments

made by these adolescents about these adults, will determine their emotional and behavioral reactions toward the adults, thus affecting their own development and quality of life. Learning adolescents' ideas and perceptions toward adults may enable people to rearrange adolescents' relationships with the people around them. Studies to be conducted on the lives of adolescents and the adults in adolescents' lives can provide more satisfactory relationships and reduce the number of communicational issues for both sides. Awareness of adolescents' perceptions toward adults can be effective in predicting the formation of their relationships with the adults around them. Accordingly, this study aimed to develop a valid and reliable Likert-type scale that can be used to evaluate adolescents' perceptions toward adults.

2. Materials and Methods

This section provides details regarding the experimental group, data collection tools used in this study, processing methods, and data analysis.

2.1. Experimental Group

This group was formed based on the data from two experimental groups, the participants of which were undergoing high school education in the Battalgazi District of Malatya, Turkey, during the 2015-2016 spring term. The data were used to develop SAPTA. Necessary approvals were obtained to collect the data, and the study was conducted based on principle of voluntariness.

Experimental Group 1: The EFA of SAPTA was performed on the data of 381 students, who constituted the first study group. The number of female and male students in this group, which was examined for pattern-concept validity, was 200 (52.49%) and 181 (47.51%), respectively. Of these students, 131 were ninth-grade students (34.4%), 114 were tenth-grade students (29.9%), 70 were eleventh-grade students (18.4%), and 66 were twelfth-grade students (17.3%).

Experimental Group 2: The CFA of SAPTA was performed on the data of 627 students, who constituted the second experimental group. The number of female and male students in this group was 370 (59.01%) and 257 (40.99%), respectively. Of these students, 202 were ninth-grade students (31.8%), 177 were tenth-grade students (27.8%), 135 were eleventh-grade students (21.2%) and 113 were twelfth-grade students (17.8%). Of all the participants in both experimental groups on which EFA and CFA were performed, 56.4% (570) were female, while 43.46% (438) were male. There were 41 students who filled out the scales imperfectly; the data from these students were excluded from the analysis.

2.2. Data Collection Tools

SAPTA and the Introductory Information Form were used as the data collection tools.

The Process of Developing Data Collection Tools: SAPTA was prepared to determine adolescents' perceptions toward the adults around them in their daily lives. For this purpose, interviews were conducted primarily with eight adolescents who were high school students, and qualitative data were collected, asking questions including the following: **“Can you comfortably share your ideas and feelings about the adults around you?”**. Afterwards, the literature on the concepts of adolescence, adulthood, perceptions, personal perception, adjectives describing individuals, and the ways adolescents perceived adults was reviewed (Somer, 1998; Somer & Goldberg, 1999; Bulus, 2001; Bacanlı, İlhan & Aslan, 2009; Smith & Reis, 2012; Kirimer, 2014; Akin & Kaya 2015; Dogan, 2017; Incik & Uzun, 2017; Du-Bois Raymond, 1998;

Tilton-Weaver, Vitunski & Galambos, 2001; Arnett & Tabor, 1994; Baker & Galambos, 2005; Palmore, 2005; Ozer, 2016). Numerous adjectives were determined using the studies of the perceptions of adolescents and adults, and an item pool with 81 items was prepared. Regular sentences with positive and negative statements were included to prevent students from providing stereotyped reactions. The options in the 5-point Likert-type scale were: "Never," "Seldom," "Occasionally," "Frequently," and "Always." Each item was organized in such a way that "Never" was indicated by one point, while "Always" was indicated by five points.

Personal Information Form (PIF): This form was created to collect information about students' genders, schools, and class levels, and it was filled in along with the practice form by the students.

3. Findings

3.1. Content Validity

Scale on Adolescents' Perceptions on Adults: SAPTA was developed to present how high school students perceived the adults around them and to measure the relevant results. An item pool was formed with the direct or related statements on adolescents' behaviors and perceptions toward adults. Afterwards, a content validity study was performed on the collected data. Content validity indicates whether the items of the test are qualitatively and quantitatively sufficient for evaluating the characteristics to be tested. Experts' ideas are consulted to ensure content validity. The expectation from the experts is to assess the content validity for the items in a draft test form. The experts' ideas can be collected using the expert evaluation form with open and closed-ended questions. An item remains in the evaluation tool if it shows a 90-100% match with an item in the expert evaluation form. In the event of a 70-80% match, an item can be included in the evaluation tool after making revisions based on the experts' criticisms (Buyukozturk, 2010).

The draft evaluation form was presented to six academics who each have at least a doctoral degree and who work in the Faculty of Education (of these individuals, three work in Psychological Counseling and Guidance, two work in Educational Sciences, and one works in Child and Adolescent Development). Their assessments on items' suitability and comprehensibility were requested. After considering these individuals' opinions and suggestions, necessary revisions were performed, and a preliminary SAPTA trial form with 32 items was created.

A pilot study was conducted with 76 students in a randomly selected high school to collect information about the preliminary trial form with 32 items mentioned above. This pilot study also collected information regarding the time required for completion, the comprehensibility level, and any difficulties related to the preliminary form. The random sample method is a method in which the selected units are included in the sample by granting equal selection possibility to each sample unit (Buyukozturk, KilicCakmak, Akgun, Karadeniz & Demirel, 2013). Studies indicate that sample size may vary between 30 and 50 individuals while developing a scale (Seker & Gencdogan, 2014), or a sample of 60-90 individuals will be sufficient if the number of items is higher than 30 (Secer, 2015). Considering these lines of evidence, it is fair to state that our sample size and number of items were sufficient for the preliminary trial form.

3.2. Construct Validity

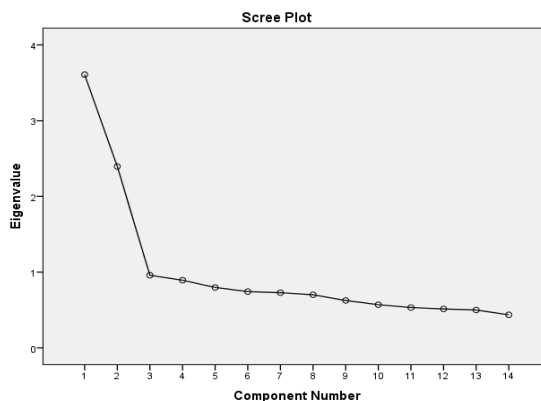
The data collected from 1049 students were transferred to the electronic environment, 41 individuals' imperfect data sets were excluded, and validity and reliability studies were performed on the data from the remaining 1008 students. Appropriate package programs were used to analyze the data and to analyze the EFA, fit validity, reliability analyses, and CFA calculations.

The collected data were examined with the Kaiser-Meyer-Olkin (KMO) coefficient and Barlett's Test of Sphericity to determine the suitability for factor analysis. A line chart-scree plot was used to determine the factor structure. The factor load value was found to be 0.45 and higher (Cokluk, Sekercioglu& Buyukozturk, 2010). Explanatory and confirmatory factor analyses were used to determine the validity of SAPTA. Cronbach's alpha reliability coefficient was calculated to determine the reliability. The mean scores of the participants in the lower group (27%) and the uppergroup (27%) (Turgut & Baykul, 1992; Tezbasaran, 1997) were compared with independent t tests. Test-item correlations were calculated to determine the distinctiveness of scale items. The margin of error was accepted to be 0.05.

The data collected from 401 students, whose ages ranged between 14 and 18, were used for EFA of SAPTA. The data sets of 20 students were excluded because of imperfect marking. We based our acceptance of our results on the principles that the KMO values should be 0.60 or higher, and the results of Barlett's test should be statistically significant (Tabachnick and Fidell, 2001). The KMO value was found to be 0.82 for SAPTA, and Bartlett's test result [$\chi^2 = 2677.832$, $df = 496$]; ($p = 0.000$)] was found to be significant. These results indicate that our sample size is suitable for factor analysis.

The oblimin with Kaiser normalization axis rotation method was used to determine the factors and facilitate the interpretation. The common factor variance of the analysis factors on each variable, items' factor loads, line chart, and explained variance rates were examined (Figure 1).

Figure 1. Line Chart



As Figure 1 indicates, two factors with eigenvalues over 1 were obtained with EFA from SAPTA (Factor 1: 25.776%, Factor 2: 17.108%), and the common variance of these two factors was

42.884%. The items and total variance values found after the EFA are presented in Table 1.

Table 1. Results of SAPTA Factor Analysis

Item No.	Common Factor Variance	Pre-rotation		Item Scale r	T for Sub-Scales	Total Scale t
		Factor1	Factor2			
SAPTA1	In my opinion, adults are brave.	0.456	0.675	0.583	-19.990***	-8.750***
SAPTA1	In my opinion, adults are helpful.	0.436	0.659	0.662	-25.356***	-9.164***
SAPTA2	In my opinion, adults are honest.	0.440	0.657	0.579	-21.352***	-9.302***
SAPTA2	Adults treat other people equally.	0.424	0.651	0.608	-26.689***	-7.466***
SAPTA5	In my opinion, adults are reliable.	0.431	0.644	0.694	-27.316***	-7.979***
SAPTA1	In my opinion, adults are consistent with their statements and actions.	0.422	0.641	0.637	-26.152***	-9.710***
SAPTA2	In my opinion, adults are affectionate.	0.388	0.623	0.522	-19.341***	-7.481***
SAPTA3	In my opinion, adults are knowledgeable.	0.239	0.481	0.583	-23.134***	-6.647***
SAPTA1	In my opinion, adults find themselves right.	0.448	0.659	0.435	-21.422***	-6.215***
SAPTA2	In my opinion, adults are too strict.	0.395	0.627	0.562	-25.917***	-6.205***
SAPTA1	In my opinion, adults are selfish.	0.440	0.604	0.458	-20.750***	-12.372***
SAPTA1	In my opinion, adults are impatient.	0.365	0.604	0.396	-18.996***	-6.423***
SAPTA2	In my opinion, adults are furious/angry.	0.372	0.602	0.545	-23.612***	-5.376***
SAPTA1	In my opinion, adults are boring.	0.306	0.548	0.357	-16.305***	-7.933***
Explained Variance: 42.884% in Total						
Factor 1: 25.776%, Factor 2: 17.108%						

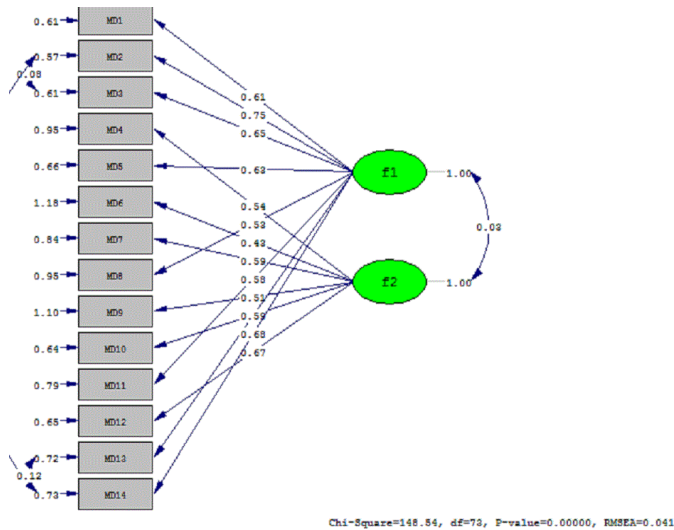
3.3. Confirmatory Factor Analysis (CFA)

The confirmatory factor analysis was performed on the two-factor structure with 14 items to determine the content validity of SAPTA. CFA was performed on a different data set collected from 627 high school students. During the model definition, the hypotheses that items would be represented with two factors, eight items would be included in the Admired Adult Characteristics factor, and six items would be in the Disturbing Adult Characteristics factor were tested. Figure 2 displays the results of CFA.

The following values of the scales were found after three modifications: NFI: 0.92, NNFI: 0.94,

IFI: 0.95, RFI: 0.90, CFI: 0.95, GFI: 0.96, AGFI: 0.95, RMR: 0.052, REMSEA: 0.045, and χ^2/SD value: 2.034. Modifications were found to be in accordance with the literature, and the results are presented (Secer, 2015; Cokluk, Sekercioglu&Buyukozturk, 2010) to fit the point intervals and the two-dimensional model perfectly. Accordingly, it is fair to state that the two-dimensional structure of the scale was confirmed, and the CFA results supported the EFA results that indicated that the scale has two factors.

Figure 2. First Level Confirmatory Factor Analysis Linkage Diagram



3.4. Reliability Studies

Cronbach’s Alpha coefficients were calculated on both EFA and CFA data for SAPTA and its sub-dimensions.

The relevant results are displayed in Table 2.

Table 2. Values regarding the reliability of the sub-dimensions of SAPTA

SAPTA	Cronbach’s Alpha (EFA)	Cronbach’s Alpha (CFA)
SAPTA	0.69	0.72
“Admired Adult Characteristics” sub-scale	0.78	0.82
“Disturbing Adult Characteristics” sub-scale	0.66	0.68

SAPTA: Scale on Adolescents’ Perceptions Toward Adults, EFA: Explanatory Factor Analysis, CFA: Confirmatory Factor Analysis

The internal consistency coefficient calculated on EFA data was found to be 0.78 for the sub-scale “Admired Adult Characteristics,” 0.66 for the sub-scale “Disturbing Adult Characteristics,” and 0.69 for the entire scale. The internal consistency coefficient calculated on CFA data was found to be 0.82 for the sub-scale “Admired Adult Characteristics,” 0.68 for

the sub-scale “Disturbing Adult Characteristics,” and 0.72 for the entire scale.

The Gutman Split-Half coefficient, one of the other calculations of scale reliability, was found to be 0.74, and Spearman-Brown reliability coefficient was also found to be 0.74. These results indicate that SAPTA has an internal consistency which can be regarded as reliable and acceptable (Ozdamar, 1999; Sencan, 2005; De Vellis, 2014).

The significance of the difference between the mean scores of the participants in the upper and lower groups is needed for each item (Tezbasaran, 1997). The arithmetical mean scores these participants obtained from the sub-factors and from the entire scale were compared, and results are presented in Table 3.

Table 3. The Values of the Scores of the Participants in the Upper 27% and Lower 27% Groups From the Sub-Scales and Entire Scale

SAPTA Sub-Scales	n	x	sd	df	t
“Admired Adult Characteristics” sub-scale	Upper 27% (103)	29.3204	1.64623	204	-32.944*
	Lower 27% (103)	20.8835	2.01125		
“Disturbing Adult Characteristics” sub-scale	Upper 27% (103)	23.0777	1.78056	204	-33.877*
	Lower 27% (103)	15.7864	1.26530		
For the Entire SAPTA	Upper 27% (103)	111.5922	6.06248	203	-36.289*
	Lower 27% (102)	82.7647	5.28059		

*p<.001

The differences were found to be significant in favor of the upper group for the factor “Admired Adult Characteristics” (t= -32.944, p<0.01), in favor of the lower group for the factor “Disturbing Adult Characteristics,” and in favor of the upper group for the entire scale (t=36.289; p <0.01). These results indicate that the distinctiveness of the scale is sufficient.

4. Conclusion and Discussion

This study aimed to develop a valid and reliable evaluation tool for determining adolescents’ perceptions toward adults.

Experts’ ideas were consulted to test the content validity of **SAPTA**, whereas EFA and CFA were used to test the construct validity. Cronbach’s alpha coefficient was calculated for determining SAPTA reliability for the entire scale and sub-scales, and a split-half method was used. Following the analyses, an evaluation tool that used a 5-point Likert-type scale with 14 items (1= “Never,” 2=“Seldom,” 3=“Occasionally,” 4=“Frequently,” and 5= “Always”) was formed. SAPTA has two sub-dimensions named “Admired Adult Characteristics” and “Disturbing Adult Characteristics.” The Admired Adult Characteristics sub-dimension examines adolescents’ positive perceptions toward adults and their consideration of adults as brave, helpful, honest, equal to everybody, reliable, consistent, affectionate, and knowledgeable. However, the Disturbing Adult Characteristics sub-dimension evaluates the perceptions toward adults and adolescents’ consideration of them as self-justifiers, strict, selfish, impatient, furious/angry, and boring. Scores ranging between 8 and 40 could be obtained from the Admired Adult Characteristics sub-dimension, whereas participants could obtain

scores ranging between 6 and 30 from the Disturbing Adult Characteristics sub-dimension. EFA indicated that SAPTA had two sub-dimensions, and these sub-dimensions explained 42.884% of the total variance. In addition, CFA was performed to determine whether the SAPTA with 14 items and two factors could be confirmed as a model. According to the CFA results, the following necessary fit values were obtained: NFI: 0.92, NNFI: 0.94, IFI: 0.95, RFI: 0.90, CFI: 0.95, GFI: 0.96, AGFI: 0.95, RMR: 0.052, REMSEA: 0.045, and χ^2/SD value: 2.034).

The AFA results performed for the reliability study were 0.78 for the Admired Adult Characteristics sub-scale, 0.66 for the Disturbing Adult Characteristics sub-scale, and 0.69 for the entire scale. The internal consistency coefficient calculated on CFA data was found to be 0.82 for the Admired Adult Characteristics sub-scale, 0.68 for the Disturbing Adult Characteristics sub-scale, and 0.72 for the entire scale. In addition, both the Guttman Split-Half coefficient and the Spearman-Brown reliability coefficient were found to be 0.74. These results indicate that SAPTA and its sub-dimensions are reliable. The revised total item correlation values of the scale were found to range between 0.481 and 0.675. The *t* test calculations performed for the lower and upper groups (27%) indicate that a significant difference is present for the sub-scales and the items of the entire scale.

The results of the validity and reliability study for SAPTA, which was developed in Turkey, suggest that SAPTA can be safely used to evaluate the perceptions of adolescents aged between 14 and 18 toward adults.

Competent and supportive adults are accepted as one of the critical factors affecting adolescents' development (Santrock, 2015). Adolescents need to participate in social life and form social relationships to maintain their developments. Positive relationships between adolescents and adults can ensure positive perceptions and mutual improvements. Researchers can use SAPTA for different purposes, considering the findings. SAPTA is a scale that can be used primarily by schools, educators working with adolescents, psychological counselors, psychologists, pediatric development experts, and social work experts for practice and research-based purposes and collecting data. Consequently, SAPTA can be used to increase the rates of establishing healthy and desired relationships between adolescents in Turkey and the people around them; to support adolescent development; to conduct studies for organizing more effective programs; and to plan preventive, enhancing, and problem-solving activities, which are the basic functions of counseling services.

This study was conducted with the students in the high schools in the Battalgazi district of Malatya, Turkey. The findings can be generalized to the degree that they appear similar to the findings of other groups and sample groups, which is a limitation of this study. The scale developed in this study is for adolescents whose ages range from 14 through 18. Future studies of relevant subjects can present scales for determining how students under the age of 14 and individuals older than 18 perceive adults. The students in this study do not represent the entire adolescent population. A broader sample group and studies conducted with other young individuals in different districts may provide different information about how adolescents perceive adults. It is fair to state that the results of the analyses in this study can still be improved, although these results are acceptable. In addition, future studies can be performed to support the validity and reliability of this scale.

Acknowledgements

This study was conducted based on the unpublished master's thesis entitled "Reviewing Adolescents' Perceptions Toward Adults From Various Aspects" March 25, 2018.

5. References

- Akin, A. ve Kaya, M. (2015). Pozitif Algı Olcegi Turkce Formunun Gecerlik ve Guvenirligi. *Journal of European Education*, 5(2), 16-22.
- Arnett, J. J. (1994). Are college student adults? Their conceptions of the transition to adulthood. *Journal of adult development*, 1(4), 213-224.
- Arnett, J. J., ve Taber, S. (1994). Adolescence terminable and interminable: When does adolescence end?. *Journal of youth and adolescence*, 23(5), 517-537.
- Aronson, E., Wilson, T. D. ve Akert, R. M. (2012). Sosyal Psikoloji. (Cev. Okhan Gunduz). Istanbul: Kaknus Yayinlari.
- Bacanli, H., Ilhan, T. ve Aslan, S. (2009). Bes Faktor Kuramina Dayali Bir Kisilik Olceginin Gelistirilmesi: Sifatlara Dayali Kisilik Testi. *Turk Egitim Bilimleri Dergisi Bahar*, 7(2), 261-279.
- Barker, E. T. ve Galambos, N. L. (2005). Adolescents' Implicit Theories of Maturity Ages of Adulthood, Freedom, and Fun. *Journal of Adolescent Research*, 20(5), 557-576.
- Bee, H. ve Boyd, D. (2009). *Cocuk Gelism Psikolojisi*. (Cev.: O. Gunduz). Istanbul: Kaknus Yayinlari.
- Bulus, M. (2001). "Kisi Algı Olceginin Ogretmen Adaylari Icin Guvenirlik ve Gecerlik Calismasi," *Egitim Arastirmalari Dergisi, Eurasian Journal of Educational Research*, 5, 29-35.
- Buyukozturk, S. (2010). *Sosyal Bilimler Icin Veri Analizi El Kitabı: Istatistik, Arastirma Deseni, SPSS Uygulamalari ve Yorum*. Ankara: Pegem Akademi Yayıncılık.
- Buyukozturk, S., KilicCakmak, E., Akgun, O. E., Karadeniz, S., Demirel, F. (2013). *Bilimsel arastirma yontemleri*. Ankara: Pegem Akademi Yayinlari.
- Carver, A., Salmon, J., Campbell, K., Baur, L., Garnett, S., ve Crawford, D. (2005). How do perceptions of local neighborhood relate to adolescents' walking and cycling? *American Journal of Health Promotion*, 20(2), 139-147.
- Cokluk, O., Sekercioglu, G. ve Buyukozturk, S. (2010). *Sosyal Bilimler Icin Cok Degiskenli Istatistik*. Ankara: Pegem Yayinlari.
- De Vellis R.F. *Olcek Gelistirme Kuram ve Uygulamalar*. 3. Basimdan ceviri. (T. Totan, Cev. Ed.). Ankara: Nobel Akademik Yayıncılık; 2014.
- Dogan, S. (2017). "The Usage of Adjectives Which Have Negative Meanings as Adverbs of Quantity in Turkish". *Uludag University Faculty of Arts and Sciences Journal of Social Sciences*, 18(2), 303-316.
- Donmez, A. (1992). Bilissel Sosyal Semalar. *Ankara Universitesi Dil ve Tarih Cografya Fakultesi Felsefe Bolumu Dergisi*. Cilt: 14, Sayfa: 131-146.
http://dergiler.ankara.edu.tr/detail.php?id=34&sayi_id=971
- Du Bois-Reymond, M. (1998). 'I don't want to commit myself yet': young people's life concepts. *Journal of youth studies*, 1(1), 63-79.
- Furman, W. & Buhrmester, D. (1985). Children's perceptions of the qualities of sibling relationships. *Child development*, 448-461.
- Gerrig, R., J. ve Zimbardo, P. G. (2013). *Psikoloji ve yasam* (Sart, G. Cev.). Ankara: Nobel Yayınevi.
- Giles, H., Noels, K. A., Williams, A., Ota, H., Lim, T. S., Ng, S. H., ve Somera, L. (2003). Intergenerational communication across cultures: young people's perceptions of conversations with family elders, non-family elders and same-agepeers. *Journal of cross-cultural gerontology*, 18(1), 1-32.

- Greene, A. L., Wheatley, S. M. ve Aldava, J. F. (1992). Stages on Life's Way Adolescents' Implicit Theories of the Life Course. *Journal of Adolescent Research*, 7(3), 364-381.
- Hogg, M. A. ve Vaughan, G. M. (2007). Sosyal Psikoloji. (Cev. I. Yildiz ve A. Gelmez). Ankara: Utopya Yayınevi.
- Incik, E.Y. ve Uzun, N. B. (2017). Bireysel Girişimcilik Algı Ölçeği: Gecerlik ve Güvenilirlik Çalışması. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*. Cilt: 14, Sayı: 39, S. 471-485.
- Jersild, A. T. (1979). Çocuk Psikolojisi. (Cev. G. Günce). Ankara Üniversitesi Eğitim Fakültesi Yayınları No:79.
- Jussim, L. (1991). Social perception and social reality: A reflection-construction model. *Psychological review*, 98(1), 54.
- Kirimer, F. (2014). Bağlanma Kuramı Perspektifinden Mutluluk Paylaşımı Ve Önemsizleşme Algılarının Evli Ciftler Üzerindeki Rolü. Yayınlanmamış Yüksek Lisans Tezi. Ankara: Orta Doğu Teknik Üniversitesi.
- Miller, P. H. (2008). Gelişim Psikolojisi Kuramları. (Yayına Hazırlayan: Bekir Onur, Cev. Zeynep Gültekin). İstanbul: İmge Kitabevi.
- Morgan, C.T. (1995). *Psikolojiye Giriş*. 11.Baskı. (Yayın Sorumlusu: Sirel Karakas). Ankara: H.U. Psikoloji Bölümü Yayınları.1
- Orvin, G. H., (1997). *Ergenlik Çağındaki Cocuğunuza Anlamanın Yolları*. Ankara: HYB Yayıncılık.
- Ozdamar, K. (1999). *Paket Programlar ve İstatistiksel Veri Analizi I*. 2. Baskı. Eskişehir: Kaan Kitabevi.
- Ozer, A., Gençtanırım Kurt, D., Kızıldağ, S., Demirtaş Zorbaş, S., ArıcıSahin, F., Acar ve T., Ergene, T. (2016). Ergenler için Yeterlik Algısı Ölçeğinin (YAO) Gelistirilmesi. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*, Cilt 7, Sayı 1, Yaz 2016, 237-250.
- Palmore, E. (2005). Three decades of research on ageism. *Generations*, 29(3), 87-90.
- Plotnik, R. (2009). *Psikoloji'ye giriş* (Geniş, T. Cev.). İstanbul: Kaknus Yayınları.
- Santrock, J. W. (2015). *Yaşam Boyu Gelişim*. (Cev. Edt.:G. Yüksel).13. Basım. Ankara: Nobel Yayınları.
- Scheer, S. D. ve Palkovitz, R. (1994). Adolescent-to-adult transitions: Social status and cognitive factors. *Sociological studies of children*, 6(1), 125-40.
- Sharot, T. (2017). *Baskılarının Akli*. (Cev. Tevfik Uyar). İstanbul: Domingo Yayınları.
- Smith, S. M. ve Reis, H. T. (2012). Perceived responses to capitalization attempts are influenced by self-esteem and relationship threat. *Personal Relationships*, 19 (2012), 367-385. Printed in the United States of America.
- Somer, O. (1998). Türkçe'de Kısıllık Özelliği Tanımlayan Sıfatların Yapısı ve Bes Faktör Modeli. *Türk Psikoloji Dergisi*. Cilt3, Sayı 42, Sayfa 17-32
- Somer, O. ve Goldberg, L. R. (1999). Personality processes and individual differences. *Journal of Personality and Social Psychology*, 76(3), 431-450.
- Steinberg, L. (2017). *Ergenlik*. (Cev..F. Cok). Ankara: İmge Kitabevi.
- Seker, H. ve Gencdoğan, B. (2014). *Psikolojide ve eğitimde ölçme aracı geliştirme*. Ankara: Nobel Yayınları.
- Sencan, H. (2005). *Sosyal ve Davranışsal Ölçümlerde Güvenilirlik ve Gecerlilik*. Ankara: Seckin Yayıncılık.
- Taylor, S. E., Peplau, L. A. ve Sears, D. O. (2010). *Sosyal Psikoloji*. (Cev. Ali Donmez). 2.Baskı. Ankara: İmge Kitabevi Yayınları.
- Tabachnick, B. G. & Fidell, L.S. (2001). *Using multivariate statistics* (4th ed). Boston: Allyn and Bacon.
- Tezbasaran, A. (1997). *Ölçek Geliştirme Klavuzu*. Ankara: Türk Psikologlar Derneği Yayınları.
- Tilton-Weaver, L. C., Vitunski, E. T., ve Galambos, N. L. (2001). Five images of maturity in adolescence: what does "grownup" mean?. *Journal of Adolescence*, 24(2), 143-158.
- Turgut, M. F. ve Baykul, Y. (1992). *Ölçekleme Teknikleri*. Ankara: OSYM Yayınları. s.163.

Biographical notes:

Assoc. Prof. Dr. Özcan SEZER did all her educational life in Turkey. She graduated from Guidance and Counseling Department of Science Education of the Faculty of Education Ankara University. She completed graduate education at the Hacettepe University Institute of Educational Sciences Department of Guidance and Counseling and she received Ph.D. at Gazi University Department Institute of Educational Sciences, Department of Guidance and Counseling. She is a member of National Psychological and Guidance Association (NPGA). Between 1986 and 1994 she worked as a psychological counselor in Ministry of Health. In 1995, she worked as an assistant professor at Department of Guidance and Counseling, Faculty of Education, İnönü University. She has studies in adolescence, school attachment, parental attitudes, parent education, and teacher training. She is a lecturer of Guidance and Counseling and Education in the Department of Science Education of the Faculty of Education, İnönü University, Turkey.