

# A Service for Emotion Management: Turkish Version of the Adolescent Anger Rating Scale (AARS)\*

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## Abstract

An individual's activities are closely related with his/her communication abilities. One's awareness of his feelings and needs and to what extend he can control such feelings are the key factors which effect communication abilities. Webster (1996) defines anger as, "a strong emotion; a feeling that is oriented toward some real or supposed grievance." Its synonyms are "rage, displeasure, wrath." Adolescence is a very important period in one's life because it is when individuals start to have a place in the adult world, and when they create their own relation manners. The focus of this study is to create a version of a tool, which is originally developed in English and designed for a different culture. The current study adapted the scale to another culture in order to measure one of our fundamental feelings. The Adolescent Anger Rating Scale (AARS) is developed in 1994 by DeAnna McKinnie Burney in the United States of America. This article discusses and analyzes the AARS's reliability, validity and Turkish linguistic equivalence in detail. The AARS scores are reported for total anger score and three subscales measuring the aspects of the adolescent's typical anger response pattern as: Instrumental Anger, Reactive Anger, and Anger Control. A group of 569 adolescents from different backgrounds, aged between 13-23 years, participated in the study (Togan, 2006). The study provided significant statistical data for the Turkish version of the scale.

## Key Words

Anger in Adolescents, Anger, Anger Measurement.

\* This article has been prepared based on the master thesis by Sevinçler -Togan, S. (2005) published under the title Turkish Version of Adolescent Anger Rating Scale.

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Adolescence is an important stage in life span as it is a period where an individual positions himself/herself in the adolescent world and define the style of his/her relations. In addition to hormonal and physical changes seen in this period, an increasing need in individual for independence comes along (Kulaksızoğlu, 1990, 1999; Onur, 1987). One of the most important developmental tasks expected from the individual in adolescence period is the behavioral pattern complying with adult roles. Gaining skills on emotions and emotional control during his/her social and emotional development are listed among more common developmental tasks of the period (Köknel, 1986; Yeşilyaprak, 2000). An individual's recognition of himself/herself and being able to establish and manage empathy is called "emotional intelligence." With these aspects, emotional intelligence can be accepted as a part of emotional development.

Emotional intelligence is a mental skill. It is not only having emotions but also understanding their meaning at the same time (Epstein, 1999). It is the skill of a person to recognize various expressions of his/her and others (Goleman, 2001; Hettich, 2000). Sensitivity about emotions, consciousness and ability to manage constitute a subtitle of communication and of importance for the adolescent when entering the adult world.

It can help understand communication better when it is examined not only within the limits of individual relationships but with its social and personal aspects. According to Cüceloğlu (1991), gaining new communication skills is essential to become a democratic and modern society. Healthy social relationships require awareness of "relationship and content levels" in the communication process. Different meanings can be attributed to the same content in communication with persons in different positions. In addition, the individual needs to recognize his/her emotions, be aware of sources of emotions and emotional control for a healthy communication.

Telman and Ünsal (2005) emphasize that a person should resist against giving immediate reaction in situations causing anger, otherwise this anger might damage the person himself/herself and his/her social relations.

"Anger" is one of the important emotions in terms of healthy communication. According to Webster dictionary (2009), anger also contains

a powerful emotion of hostility. It is an intense emotional condition caused by discontent. This intense condition of discontent can create inward and outward behaviors of aggressiveness. However, according to Retzinger (1991), anger should be handled in “emotion” and aggressiveness in “behavior” aspect. Anger sometimes causes aggressiveness, but mostly it is not the trigger of aggressive behavior.

According to Spielberg, Jacobs, Russel and Crane (1983), anger is a kind of emotional position which ranges from simple irritation and anger to intensive fury. It could be useful for a person if it is in mild degree and lasts a short period but, if it is intense and contemporary, it could be destructive (cited in Spielberg, Reheiser and Sydeman, 1995).

During the examination of anger from the aspects of social and emotional development of the adolescent and communication, it can be useful to regard it by not only its dictionary meaning but also by how the fields of psychology, counseling and sociology interpret the concept. In literature, there are many definitions of anger by various researchers from different aspects. The common points of these definitions are: Anger contains (1) “planlessness” for its unpremeditated emergence, “universality” for including physical and emotional reactions commonly observed in all human beings; “provokability and protectiveness” for the individual’s feeling a threat to its subjective domain in its emergence; “learnability” for its aspect to take other people’s reactions as model (Clark, 2000; Geçtan, 1988; Hankins, & Hankins, 1988; Kısıaç, 1997; Namka, 1997; Tavis, 1989, cited in Balkaya, 2001).

Even though the opinion that adolescence is a stress-free period gains importance in the academic circles, society and adolescents define this period as a depressed period. For example, in a research carried out by Offer, Schonert, Reichl, Boxer (1996), 62 mental health professionals were asked in a survey to define the “characteristics of an adaptable adolescence period.” Definitions of the professionals were compared with the thoughts of 407 normal adolescents about themselves. It was observed that the professionals attributed more problems to the adolescents than the adolescents did to themselves (cited in Mukaddes-Motavalli, 2001).

The rightfulness of the referred problems to the adolescent can be explained by development specialty of the period. Yavuzer (2005) describes adolescence as composition of mental, physical, sexual and psycho-so-

cial development. He also emphasizes that adolescence is one of the fast stormy development period.

Different psychological theories worked on emotions and emotional control also brought different explanations to the subject. Psychoanalytic approach describes anger as biological heritage and stresses on destructive and violent side of it. The obsession at oral, phallic or anal periods showed the reason of this emotion (Kısaç, 1997).

On the other hand, the “punishment and reward” are very important for emotional growth for social (Ellis, 1992). Imitation takes a very important role at raising a child. If some negative emotions-like anger, revenge and hate increase in parent communication, a child can show aggressive emotions and behaviors toward his/her own mother/father and other people. In learning aggressive behaviors, identification is very important (Köknel, 1986).

Cognitive-behavioral approach presents some therapy methods for the behavioral problems. According to cognitive-behavioral therapy, anger results from some non-rational beliefs, expectations and inner speeches. The intensive negative emotions-like anger, sorrow, depression etc.- are related to automatic thinking. These emotions can be changed with precise and exertive psychotherapy to a more realistic viewpoint (Türkçapar, 2007).

It was observed that a valid and reliable scale is needed in order to measure anger, which is one of the important study subjects for professionals in preventive and constructive psychological counseling specialists as well as for researchers. This research focuses on series of studies conducted to obtain the Turkish version of the Adolescent Anger Rating Scale- AARS.

Four different scores are obtained from Adolescent Anger Rating Scale from the scale: “Instrumental Anger, Reactive Anger and Anger Control” and “Total Anger.” The AARS was developed by Dr. McKinnie-Burney in 2001 in the USA. Data were collected from adolescents within ages ranging between 11 and 13 for the original scale form. In Turkey, it was observed that anger has become a more popular research subject due to the problems and incidents such as increasing violence in schools, fights and bullying resulting in injuries among students. Based on the foresight that researchers will need longitudinal anger measurements, the age range of the AARS Turkish form was extended to ages

19 to 23 in the application. Tables within the scope of research are titled “adolescent group” for ages 12 to 15 and “adult group” for ages 19 to 23. As findings at minimum  $p < .05$  level were obtained for the adult group, they were presented and discussed in the article.

In original scale development studies, gender, ethnicity, class level were taken as the primary factors that affect anger, and academic failure or poor performance, peer rejection, negative peer socializing, non-functioning family life, genetic features in the family and neurobiological deficiencies are set as secondary factors. Even though it is not as comprehensive as the original study, in the current study, analyses were made using the scale scores in terms of age, gender, number of siblings, number of friends, friendship level variables (Fryxell, 2000).

### **Method**

Within the scope of this research, Turkish linguistic equality, reliability and validity analyses were conducted. For each analysis, data were collected from different study groups (Baykul, 2000; Karasar, 2004; Köklü, Büyüköztürk, & Bökeoğlu, 2007; Özçelik, 1989). Within the scope of studies for Turkish version of the Adolescent Anger Rating Scale (AARS), data were collected from 569 persons (306 females, 263 males). Research data were compiled under the graduate degree thesis study which was completed by Sevinçler-Togan in 2006.

For linguistic equality studies, scores were obtained from two different study groups; one consisting of 40 high school juniors and seniors and the other consisting of 68 college juniors. Each group was first given an English form and two weeks later a Turkish form. Pearson Product Moment Correlation coefficient and dependant group t-test were used in the analyses (Anastasi, 1982; Öner, 1994).

Within the scope of reliability studies, tests were applied to 278 students (141 female, 137 male) in seventh and eighth grade classes of elementary schools, to 110 students with ages 19 to 23 studying in seventh and eighth classes of elementary schools and 251 university students (165 females, 86 males). The tests were verified for reliability with test-retest and internal consistency analyses. As the results were found statistically significant at minimum  $p < .05$  level, the test was accepted reliable and validity studies were conducted (Bademci, 2006).

Item analyses (item total and remainder analysis) and item discrimination techniques were used for construct validity. During item analyses, Pearson Product Moment Correlation Coefficient technique, and in item discrimination, independent group t-test was used.

## Results

General methods used in the development of psychometric instruments were followed as a guide in the present research. Linguistic equality, reliability, and validity analyses were conducted (Baykul, 2000; Köklü, Büyüköztürk, & Bökeoğlu, 2007; Özçelik, 1989). The Adolescence Anger Rating Scale Turkish Form can be used with students whose ages range twelve to twenty-three years. In the scale study, students whose ages ranged twelve to fifteen years were defined as the “adolescent group” and those were in nineteen to twenty-three years old were identified as the “adult group”. Even though the original scale was designed for ages eleven to nineteen years, in the present developmental research it was administered to all university-age groups. Preliminary analyses showed that results were within statistically acceptable limits.

### Linguistic Equality

Within the scope of linguistic equality study, the English form and then the Turkish form was administered to 48 university students and 40 male students in a military school in the 2005–2006 academic year. All students were proficient in English. Relationships between scores obtained from the Turkish and English forms were analyzed using Pearson product-moment correlation coefficient (Baykul, 2000; Köklü, Büyüköztürk, & Bökeoğlu, 2007; Özçelik, 1989). Another analysis within the scope of linguistic equality analyses was the comparison of scores in the English and Turkish AARS forms. Independent t-test was conducted between the English and Turkish form scores for 48 persons in an English teaching department. No significant difference was found between the scores of the two forms. Although there is a relationship between responses given by students in the Turkish and English AARS forms, no difference was observed between the means. These results showed that the Turkish form of the Adolescent Anger Rating Scale was established. In linguistic equality, correlation analyses of the scales carried out based on items and subscales of the instrument. Significance levels were between  $p < .05$  and  $p < .001$ .

## Reliability

Reliability analysis was conducted on two-hundred-seventy-eight students (141 females, 137 males) in 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grades of elementary school. This group included students whose ages ranged from twelve to fifteen years. In addition, two-hundred-fifty-one university students (165 females, 86 males) with ages ranging from nineteen to twenty-three years participated. Guttman, Cronbach Alfa and Spearman Brown techniques were used in the analyses (Tabachnick, & Fidel, 2001).

Within the scope of reliability analyses, test-retest was conducted on the study group of 91 persons. According to dependent t-test results, no difference was found between the two administrations across any items. According to Pearson Product Moment Correlation Coefficient, the relationship between two administrations was significant at  $p < .001$ . According to Baykul (2000), adequate correlation coefficient (minimum  $p < .05$ ) in reliability estimations shows both the consistency of measurements obtained from the test and that there are not many changes in time between the two applications in measured quality. Bademci (2006) emphasizes that reliability is not only affected by the means used as criteria but also by the sample and it is a function of the sample.

## Validity

Construct validity analyses were performed within the scope of validity studies. Construct validity is about presenting that dimensions and items of a test are meant for measurement of a certain theoretical construct (concept) (Anastasi, 1982; Öner, 1994). Item-total, item-remainder coefficients, and Pearson product-moment correlation coefficient were calculated. In item discrimination, the 25% group with the highest scores in the test was named as the “upper group” and the 25% group with the lowest scores was named as the “lower group”; then, independent group t-test between averages of these two different groups was calculated. In the Turkish form, as proof of the items’ ability to rate the type and condition of anger, items that proved to be significant at  $p < .05$  level were retained.

Item analysis was conducted within the scope of validity (Baykul, 2000). From this information forward, statistical results were obtained using three different techniques as item-total, item-remainder and item-discrimination with the requirement that the results be significant at  $p < .05$  level and this condition should be provided for every forty-one items in the test. It was decided to include 41 items in the Turkish form.

## Demographic characteristics and AARS

In the manual of the Adolescent Anger Rating Scale and in some other sources, it is mentioned that some demographical variables are the factors that affect anger (Fryxell, 2000; McKinnie-Burney, 2001). Taking the original form as the basis for the Turkish form, scores from the aspects of gender, number of siblings, birth order, number of friends, and attitudes toward friends were tested using Chi-square. In all sub-tests of anger, differences were identified between females and males. According to Chi-square analysis, in all instrumental anger, reactive anger, anger control, and total anger scores, significant results were obtained at  $p < .001$  level on the number of siblings. Difference was observed at  $p < .001$  level for birth order. In all instrumental anger, reactive anger, anger control, and total anger scores, significant results were obtained at  $p < .001$  level according to the number of individual's friends variable. In the 1980s, different researchers reached the similar findings on the students interactions' content which is observed at school, was this pointer of their future conformity (Asher, 1993; Parker and Asher, 1987; Rubin, 1983; cited in Palut, 2003). Lutwak, Panish, Ferrari and Razzino (2001) compared the expectations and anger expression styles of college students for their shame, guilt, and future success. A total of two hundred and sixty five college students - one hundred and seventy four females and ninety one males - participated to this research. As data collecting tools, the Test of Self-conscious Affect -TOSCA, Generalized Expectancy for Success Scale, and Anger expression scale were used. According to the findings, there is a significant difference between genders for both guilt and shame emotions. Girls displayed more guilt and shame. For both girls and boys, a positive relationship was found between shame and introjections of anger. In conclusion, according to findings obtained in analyses performed under linguistic equality, reliability, and validity, it is thought that the Turkish form of the scale could be used within twelve to twenty-three years of age range.



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