

# Developing relative deprivation scale-adolescent form (RDS-AF) and testing its psychometric properties<sup>#</sup>

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## ABSTRACT

The aim of this study was to develop a valid and reliable measurement instrument to find out adolescents' relative deprivation levels and to determine the statistical characteristics of the instrument. The Relative Deprivation Scale-Adolescent Form was prepared and applied to 586 adolescents within the scope of the study. Exploratory Factor Analysis (EFA) was performed on the data obtained. As a result of EFA, a 3 component and 16-item form was created. Following this, the form was addressed to 320 adolescents and Confirmatory Factor Analysis (CFA) was performed on the data obtained. Goodness-of-fit values obtained from the CFA were as follows:  $\chi^2/df = 2.69$ , RMSEA = .073, CFI = .93, IFI = .93, TLI = .91 and GFI = .90. In terms of these values, it can be concluded that RDS-AF has a 16-item and 3-factor structure and acceptable fit values. Criterion validity of the scale was analysed with Multidimensional Perceived Support Scale and Ostracism Experience Scale for Adolescents. Correlation coefficients between RDS-AF and these scales were found as .63 and .44. Reliability of the scale was examined within the scope of internal consistency and stability. Cronbach's Alpha coefficient calculated to determine internal consistency was found as .89; while the Pearson Product Moment correlation coefficient calculated within the scope of test-retest carried out to determine stability was found as .76. These findings confirm that RDS-AF is a valid and reliable measurement instrument that can be used to determine the relative deprivation levels of adolescents.

**Keywords:** Relative deprivation, validity, reliability, adolescence.

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## INTRODUCTION

The concept of relative deprivation first came out when Samuel Stouffer et al. realized that satisfaction is relative as a result of the surveys they conducted on American soldiers in World War II (Pettigrew, 2015). Runciman (1966) grouped relative deprivation into three categories that are personal deprivation, group deprivation and double deprivation in which both can be present at the same time. While individuals are exposed to deprivation alone in personal relative deprivation; in group relative deprivation, individuals think that their group is disadvantaged compare with a relevant referent, and that this judgment elicits feelings of anger, resentment and entitlement. In double relative deprivation, individuals

believe that both the individual and the groups they are in are exposed to deprivation (Abrams and Grant, 2012).

The concept of relative deprivation can be defined as individuals' perception of themselves as disadvantaged when compared to those who are similar to them and this perception triggers emotions such as anger, resentment, sadness and anger. In other words, relative deprivation is the emotional consequence that occurs when individuals compare what they have with those others similar to them have and think that they have the right to have what they don't have (Smith et al., 2012). According to Runciman (1966), the concept of relative deprivation has four components. These are:

1. First, individuals compare themselves to others.
2. Next, they make an evaluation that they are more disadvantaged.
3. They think that these disadvantages are unfair.
4. They resent that these advantages they could not have are injustice done to them.

Crosby (1976) reshaped the concept by focusing on the personal aspect of relative deprivation and stated that there are five factors to be able to say an individual is experiencing relative deprivation. These factors are:

1. Wanting something
2. Comparing oneself to people who have/own that thing
3. Thinking "I deserve that thing, too"
4. Thinking that it is possible to have that thing
5. Blaming factors outside oneself for not having the thing one wants to have (Crosby, 1982; Kiral, 2009).

Crosby (1976) stated that relative deprivation is not only a perceived situation, but it is also an emotion. According to the author, this emotion is a feeling of deprivation that emerges intertwined with complaint and anger. Relative deprivation includes three dimensions, that is, social comparison, cognitive appraisal and emotional experience (Smith et al., 2012). Social comparison includes individuals' comparing themselves with their peers, cognitive appraisal includes cognitive inferences individuals make about themselves and others as a result of this comparison and emotional experience includes the feelings of resentment individuals feel by perceiving themselves in a disadvantageous situation as a result of their evaluation (Jia, 2022). When the literature is reviewed, it can be said that studies on relative deprivation mostly focus on adults; however, the results of studies conducted have shown that relative deprivation also plays an important role in childhood and adolescence (Gunnarsdóttir et al., 2016).

Adolescence is defined as the developmental stage that covers the transition from childhood to adulthood. This period includes many bio-psycho-social changes (Santrock, 2012). During adolescence, most individuals are in their schools with their peers for a long time. In this period, the influence of peers on the adolescent increases and the family begins to be replaced by peers (Köse, 2015). In this context, for many adolescents school is an environment where life standards are noticed.

Adolescents who have lower socio-economic level or who have less support in family relations and social relations than their peers gain their first awareness of this in the school environment (Bourdieu, 1984; Kim, 2021). Adolescents who have lower socio-economic levels than their peers may feel relatively deprived in terms of accessing financial and psychological resources. When adolescents realize that they cannot reach the lifestyles of their peers who are better off, their mental health may deteriorate (Pettigrew, 2016). This situation involves

many risks. The sense of deprivation individuals experience may cause hopelessness for the future in individuals (Jamieson and Romer, 2008). When their peers are better off, adolescents may adopt a fatalistic understanding because they feel incapable of controlling their lives. This may cause adolescents to have doubts about making plans for the future and implementing these. All these negative psychological processes can affect individuals' mental health and show their effects on the decisions that shape their future because adolescence is a period in which individuals determine their professional goals that will be effective in their adult lives, as well as their lifestyle, expectations and education (Kim, 2021).

Relative deprivation theory argues that relative deprivation resulting from negative social comparisons can result in an increased probability of anger, normlessness and deviant behaviours (Bernburg et al., 2009). Relative deprivation within the complex structure of adolescence may cause adolescents to have problems with norms and to be directed to anger and aggressive behaviours. In a study conducted by Elgar et al. (2013), positive correlation was found between relative deprivation and internalization problems in adolescents. It was found that relative deprivation was positively correlated with alcohol consumption and smoking in male adolescents (Balsa et al., 2014). In a study conducted by Nieuwenhuis et al. (2017), relative deprivation in adolescents was found to be correlated with depression, social phobia, aggression and conflict with parents. A correlation was found between relative deprivation in adolescents and digital game addiction (Yang et al., 2021). In another study, it was found that adolescents with high relative deprivation level showed more depressive symptoms (Kim, 2021). Relative deprivation was found to be significantly and positively correlated with social withdrawal in adolescents (Xiong et al., 2022). In line with these results obtained from studies, it can be said that relative deprivation has a significant role in the psychological and social adaptation of adolescents. Determining the relative deprivation experienced by adolescents may enable them to be protected from addictions to which they may turn, to get support without wearing experiences such as depression, and to prevent experiences that may disrupt psychological and social harmony such as anger, normlessness and guilt.

Although many factors can be used for measuring relative deprivation, there are few studies in the literature that show how relative deprivation takes place in the background of individuals' minds (Hounkpatin et al., 2020). It can be seen that Gini coefficient (Silber and Verme, 2010) and Yitzhaki index (Adjaye-Gbewonyo and Kawachi, 2012) are used in literature to measure relative deprivation. It is also possible to use social comparison results on conditions such as working conditions, wealth, interpersonal relationships, accommodation states and quality of the living environment to determine the level of relative deprivation. Another method used to determine

relative deprivation is measurement instruments (Jia, 2022). Personal Relative Deprivation Scale (PRDS) developed by Callan et al. (2008) is a measurement instrument for adults. Similarly, Individual Relative Deprivation Scale (Zoogah, 2010) is also used for the determination of relative deprivation in adults. University Students' Relative Deprivation Questionnaire (USRDQ) developed by Jia (2022) is used to determine the relative deprivation of individuals in emerging adulthood. It can be seen that Yitzhaki index is used in studies on relative deprivation of adolescents (Elgar et al., 2013; Elgar et al., 2016; Napoletano et al., 2016; Nieuwenhuis and Chiang, 2021). This index evaluates the economic dimension of relative deprivation (Adjaye-Gbewonyo and Kawachi, 2012). This brings to mind that social and psychological dimensions of relative deprivation are not evaluated. No studies were found in the literature which aimed to measure individual relative deprivation of adolescents. This study aims to develop a measurement instrument to determine the individual relative deprivation of adolescents and to conduct its validity and reliability studies.

## METHOD

This part contains information about the studies conducted during the development of the Relative Deprivation Scale-Adolescent Form (RDS-AF) and information regarding the characteristics of the participants.

### Participants

In this study, the participants were recruited via a convenient sampling method. Convenient sampling refers to the sample that researchers can easily access. Convenient sampling can be preferred since it provides advantages in terms of practicality and economy (Monette et al., 1990). The participants of the present study, which was conducted to evaluate the psychometric characteristics of RDS-AF, consisted of 523 (57.6%) female and 385 (42.4%) male students who were receiving education at different types of high schools. 21.1% of the participants were 9<sup>th</sup> graders, while 39.6% were 10<sup>th</sup> graders, 23.5% were 11<sup>th</sup> graders and 15.7% were 12<sup>th</sup> graders. In terms of family level of income, 35% were in lower ( $\leq 4500$  ₺) income group, while 48.8% were in moderate (between 4501 and 9000 ₺), and 16.2% were in high ( $\geq 9001$  ₺) income group.

### Data collection process and ethical considerations

During the scale development process, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted to analyze the construct validity.

In the first step, EFA was conducted with the data obtained from 340 females (58%) and 246 (42%) male high school students, followed by CFA with the data obtained from 183 females (57.2%) and 137 (42.8%) male high school students, which included different individuals.

Test-retest method was used to find out the stability of the scale and RDS-AF was applied to 75 participants with an interval of 3 weeks. Identity information of the participants was not taken in this application and the participants were asked to determine a nickname.

Participation in the study occurred voluntarily. The data were collected online through Google Forms for being economical in terms of both time and money. The participants were given an informed consent form. The data, information and documents presented in the study were obtained within the framework of ethical rules and all information, evaluations and results were presented in accordance with scientific ethics and morals.

### Data collection tools

#### *Multidimensional perceived support scale (MPSS)*

This measurement instrument was developed by Zimet et al. (1988) and adapted to Turkish society by Çakır and Palabıyık (1993). A scale adaptation study was conducted with a total of 960 individuals between the ages of 12 and 22. MPSS is a 12-item scale consisting of three dimensions including support from "family", "friend" and "significant other". Internal consistency of the scale was calculated as .76 with Cronbach's Alpha coefficient. The test-retest coefficient was calculated for the stability of the scale and it was found as .89. The scale is a 7 Likert-type scale. High scores from MPSS indicate high perceived social support (Çakır and Palabıyık, 1993).

#### *Ostracism experience scale for adolescents (OES-A)*

OES-A, which was developed by Gilman et al. (2013) was adapted to Turkish culture by Sertelin Mercan (2016). A scale adaptation study was conducted with 461 adolescents between the ages of 14 and 17. The 11-item scale has two sub-dimensions that aim to measure ignorance (5 items) and exclusion (6 items) experiences. Internal consistency of the scale was calculated with Cronbach's Alpha coefficient. Cronbach's Alpha coefficient was found as .82 for the ignorance sub-dimension and .83 for the exclusion sub-dimension. The test-retest coefficient was calculated for the stability of the scale and it was found as .65 for the ignorance sub-dimension and .63 for the exclusion sub-dimension. Higher scores from the sub-dimensions of OES-A indicate higher perceptions of ignorance and exclusion in individuals.

### **Relative deprivation scale-adolescent form (RDS-AF)**

During the process of developing RDS-AF, a literature review was first conducted. Following this, the semi-structured interview form prepared in the light of literature was used and individual interviews were made with a total of 8, 4 females and 4 males, adolescents. In-depth information was sought in these interviews about different dimensions of relative deprivation experienced by adolescents with questions on the social comparison (what do you realize when you compare yourself with your peers?), cognitive appraisal (in which situations do you think you are incompetent?) and the resulting emotional experience (what do you think in such situations?) The item pool was created in light of information obtained as a result of the literature review and individual interviews. Opinions of three psychological counselling and guidance experts with at least a doctorate level of education and three language experts were taken and 3 items were removed from the pilot form accordingly.

The pilot form including 35 items created in line with the opinions and suggestions of the experts was applied to 27 high school students and as a result of this application, feedback was received on the comprehensibility of the items and the items were edited in line with the feedback. During the research process, the researcher should pay attention to whether the sample size is suitable for the study. At least 250-300 participants are required for factor analysis (Heppner et al., 2008). While Gorsuch (1990) recommended the number of participants to be five times the number of items on the scale, Tinsley and Tinsley (1987) stated that the number of suitable participants should be 10 times the number of items on the scale. In terms of the number of participants in the sample, Comrey and Lee (2013) stated that 100 is insufficient, 200 is moderately sufficient, 300 is good, 500 is very good and 1000 and more is perfect. In this study, during EFA, RDS-AF was applied to 586 participants, which was higher than the 15 times the number of items.

### **Personal information form**

A personal information form was created by the researchers to access the demographic information of the participants. This form included questions such as participants' grades, gender and family level of income.

### **Data analysis**

In order to examine the factor structure of RDS-AF, Exploratory Factor Analysis (EFA) was applied in the first step. Bartlett Sphericity Test and Kaiser-Meyer-Olkin (KMO) Test (Karaman, 2015) results were examined to

find out whether the data obtained as a result of applying RDS-AF were suitable for factor analysis and whether the sample size was sufficient. With EFA, the total explained variance values of the scale were calculated. In addition to this, rotated components matrices were calculated with "Varimax" technique, one of the orthogonal rotation methods, and a Scree Plot was obtained. Confirmatory Factor Analysis (CFA) was conducted in SPSS AMOS 21.0 program to evaluate whether the factor structure in EFA was fit. The fit of the model was evaluated with  $\chi^2/df$ , RMSEA, CFI, IFI, TLI and GFI indices in CFA. The reliability of RDS-AF was examined within the scope of internal consistency and stability. Internal consistency was calculated with Cronbach Alpha coefficient, while stability was examined with the test-retest method and the correlation between the results of two applications was calculated with Pearson Product Moment Correlation Coefficient.

## **RESULTS**

### **Exploratory factor analysis (EFA)**

Kurtosis and Skewness values were calculated to find out whether the data obtained as a result of applying RDS-AF to 586 participants had a normal distribution. Tabachnick and Fidell (2013) stated that these values should be between +1,5 and -1,5. As a result of the calculations, it was found that the Kurtosis and Skewness values of all the items in the scale were between +1.5 and -1.5. Before EFA, Kaiser-Meyer-Olkin (KMO) Test and Bartlett Sphericity tests recommended in the literature (Karaman, 2015) were calculated to find out whether the data were fit for analysis. Test results are shown in Table 1.

As can be seen in Table 1, the Bartlett Sphericity Test result was found to be significant ( $p < .05$ ) and the KMO value was .90. These values show that the data obtained have multiple distributions and the sample size is large enough for EFA (Field, 2013). Thus, EFA was conducted. In factor analysis, theoretically, there are as many factors as the number of items in the scale (Büyüköztürk, 2021). The aim here is to determine the minimum possible number of factors that can explain the correlation between items in the best way. Some rules are followed while determining the number of items (Karagöz, 2016; Özdamar, 2002; Tavşancıl, 2002). One of these rules is the method of ignoring factors with an eigenvalue of less than 1 (Özdamar, 2002). Total explained variance calculations of RDS-AF are shown in Table 2.

When Table 2 is examined, it can be seen that the measurement instrument has three factors with eigenvalues of  $\geq 1$ . Total variance explained by the three factors is 60.13. It is stated in the literature that the rotation process should be performed to determine factors, the factors should be interpreted in this way and

**Table 1.** RDS-AF Kaiser-Meyer-Olkin (KMO) and Bartlett sphericity test results.

<b>Tests</b>		
KMO	Measure of sampling adequacy	.904
Bartlett's test of sphericity	Approx. chi-square	4112,098
	df	120
	Sig.	.000

**Table 2.** RDS-AF total explained variance values.

Component	Initial Eigenvalues			Extracted dimensions			After rotation		
	Eigenvalue	Percentage of variance explained	Total explained variance value	Eigenvalue	Percentage of variance explained	Total explained variance value	Eigenvalue	Percentage of variance explained	Total explained variance value
1	6.098	38.112	38.112	6.098	38.112	38.112	3.557	22.231	22.231
2	2.422	15.136	53.248	2.422	15.136	53.248	3.094	19.337	41.568
3	1.101	6.883	60.130	1.101	6.883	60.130	2.970	18.562	60.130
4	.771	4.817	64.947						
5	.692	4.324	69.272						
6	.667	4.170	73.442						
7	.640	4.002	77.444						
8	.554	3.463	80.907						
9	.518	3.236	84.143						
10	.410	2.563	86.707						
11	.400	2.499	89.206						
12	.397	2.483	91.690						
13	.385	2.407	94.096						
14	.353	2.205	96.301						
15	.312	1.949	98.250						
16	.280	1.750	100.000						

the factor load of an item should be at least .32 (Tabachnick and Fidell, 2013). It is also stated that in the case of an item giving factor load in more than one sub-dimension, the factor load between these sub-dimensions should be at least .1 (Stevens, 2002). On the other hand, a factor should have at least three items to be stable

(MacCallum et al., 1999). The factor load of RDS-AF was found as .40 in Exploratory Factor Analysis. Table 3 shows the calculated Rotated Components Matrix results.

When Table 3 is examined, it can be seen that the scale consists of 16 items and 3 factors. Relative deprivation in the school factor includes 6

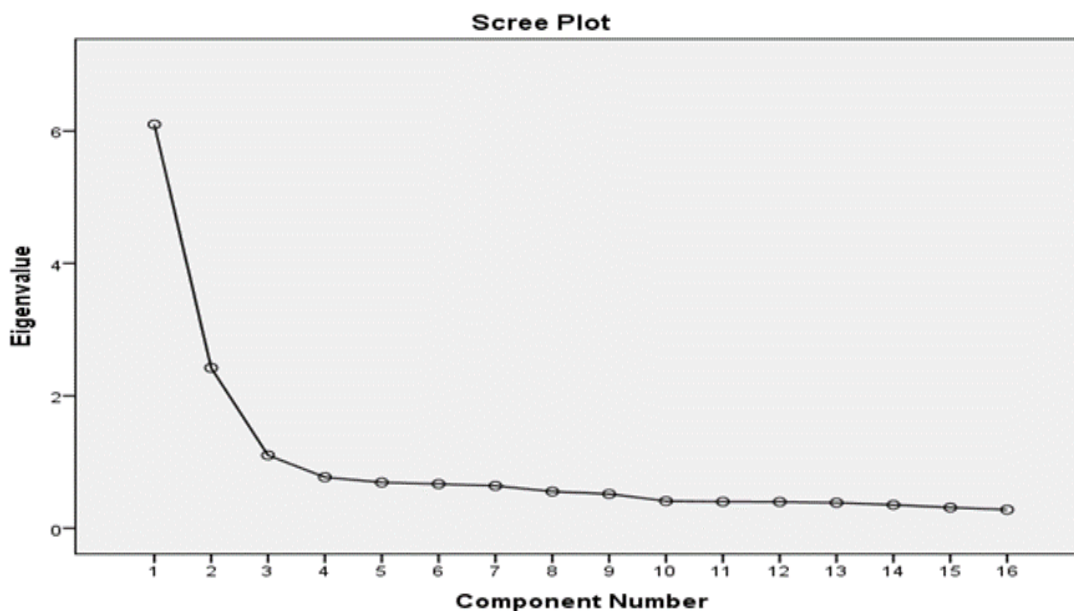
items, while relative deprivation in the family factor includes 5 items and the economic relative deprivation factor includes 5 items.

Figure 1 shows the scree plot of RDS-AF. The scree plot shows the distribution of items to factors.

A scree plot is important in examining

**Table 3.** RDS-AF rotated components matrices.

Items	Subscales		
	School	Family	Economic
M15	.800		
M2	.784		
M31	.778		
M4	.751		
M9	.710		
M22	.640		
M1		.812	
M3		.794	
M18		.699	
M24		.628	
M30		.587	
M34			.785
M35			.755
M25			.720
M26			.669
M27			.477

**Figure 1.** Scree plot of RDS-AF.

eigenvalues. The point where the vertical line becomes horizontal indicates which factors will be included in the solution (Karagöz, 2016). In the scree plot of RDS-AF, it can be seen that the line becomes horizontal after three factors. When the “Rotated Components Matrices”, “Explained Total Variance Value” and Scree Plot obtained as a result of EFA, are examined, it can be seen that RDS-AF is a 3-factor and 16-item measurement instrument.

### Confirmatory factor analysis (CFA)

In order to evaluate the EFA results of RDS-AF, CFA was conducted with SPSS AMOS 21.0 program. CFA was conducted with the data obtained from 320 adolescents. In the step before CFA, Skewness and Kurtosis values of the data obtained were checked and it was found that the data were within the range of normality assumption.

Chi-square Goodness, RMSEA, CFI and GFI are the

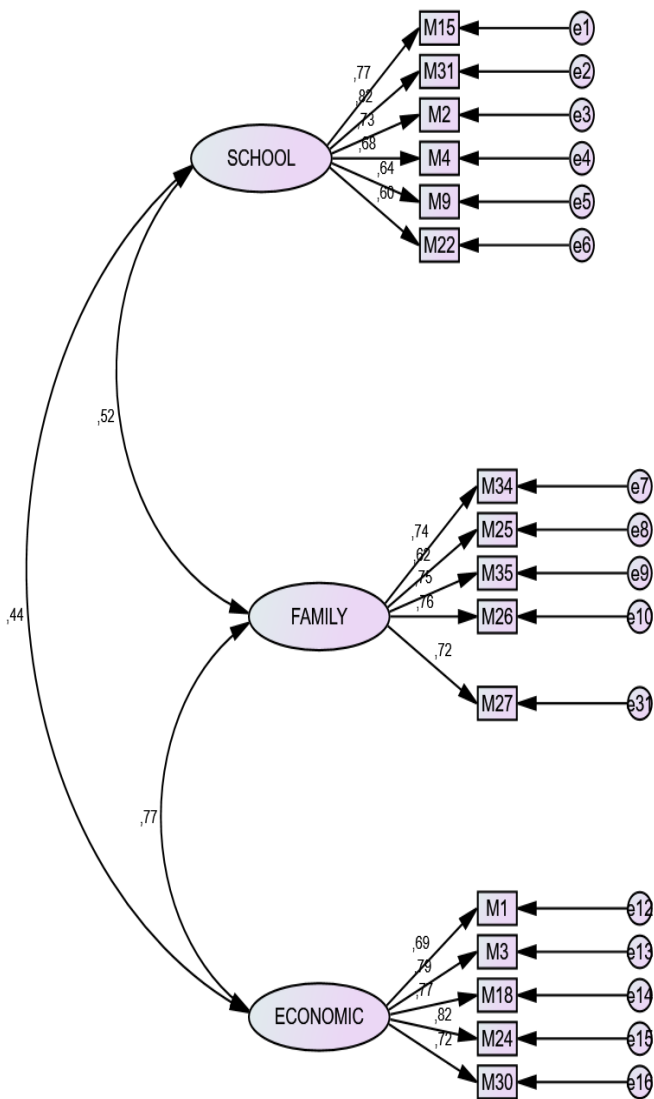
most commonly used statistics while testing the model fit (Karagöz, 2016). A Chi-Square Goodness of  $\chi^2/df < 2$  shows a perfect fit, while  $\chi^2/df < 3$  indicates an acceptable fit (Kelloway, 1998). Root Mean Square of Approximate Errors (RMSEA) should be  $< .080$ ; while Comparative Fit Index (CFI) should be  $> .90$  (Bryne, 2001). When the Goodness of Fit Index (GFI) is  $\geq .85$ , the model has an acceptable level of fit (Jöreskog and Sörbom, 1993; Karagöz, 2016; Marsh et al., 1988; Tabachnick and

Fidell, 2013). Fit indices found as a result of CFA calculations of RDS-AF are shown in Table 4.

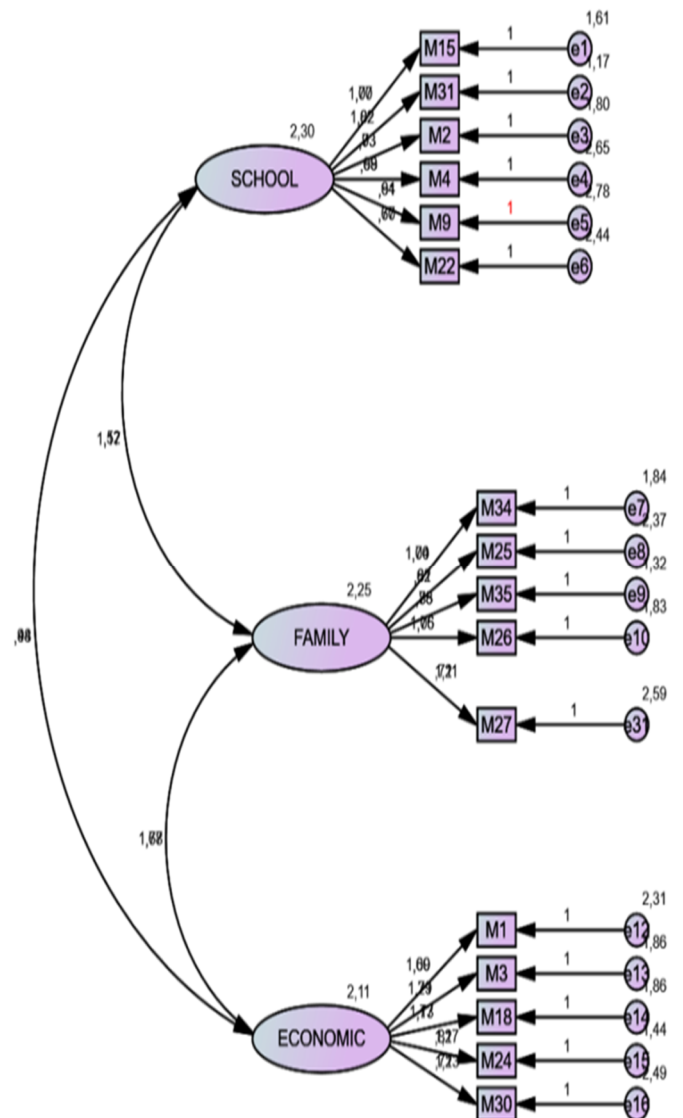
When Table 4 is examined, it can be seen that the fit indices of the resulting model are at an acceptable level. According to the results, it can be said that the 16-item and 3-factor structure of RDS-AF has an acceptable level of fit. The model obtained as a result of the CFA of RDS-AF standardized and unstandardized estimates values of this model are shown in Figures 2 and 3.

**Table 4.** RDS-AF confirmatory factor analysis results.

$\chi^2$	p	$\chi^2/df$	GFI	TLI	CFI	IFI	RMSEA
271.79	.00	2.69	.90	.91	.93	.93	.07



**Figure 2.** Obtained as a result of CFA standardized unstandardized estimates values.



**Figure 3.** Obtained as a result of CFA estimates values.

Standardized and unstandardized estimates values regarding latent variables explaining the observed variable are on the arrows. It is difficult to interpret the values in Figure 3, which are not free from standard error. Thus, it is easier to interpret the standardized values obtained in Figure 2 as a result of dividing the related variables by standard errors. The result that all values here are zero means that the fit is one-to-one, but such a conclusion cannot be reached in reality. Here, values greater than 2.58 are considered problematic values (Brown, 2009; Byrne, 2001; Gallagher et al., 2008;

Washburn and Plank, 2002). When Figure 2 is examined, it can be seen that there are no problematic values. As a result, it can be said that the structure of RDS-AF found as a result of EFA was confirmed. Table 5 presents the item contents of the scale, the distribution of the items to the subscales, and the factor loads resulting from the CFA.

As can be seen in Table 5, the factor load of the items in the school subscale of RDS-AF ranged from .599 to .819. The load of the items in the family subscale is between .689 and .818, and the factor load of the items in the economic subscale varies between .621 and .765.

**Table 5.** Factor loads for the items of RDS-AF.

Item number	Items	Subscale	Factor load
19	I feel like the school administration bestows privileges on my friends.	School	.639
12	I feel like my teachers do me injustice about my grades.	School	.725
14	I feel like my teachers bestow privileges on my friends.	School	.677
115	I think that my teachers give me lower grades than other students.	School	.767
131	I feel like I am treated unfairly in my teachers' evaluations.	School	.819
122	When I make a mistake, school administration's attitude towards me is harsher than their attitudes towards my friends.	School	.599
11	I feel angry that my family does not understand me when I compare myself to my peers.	Family	.689
118	I feel like my family does not spend enough time with me when I compare myself to my peers.	Family	.771
13	When I compare myself with my peers, I feel sad when I see the beauty in their family relationships.	Family	.791
124	I feel angry that my family does not show me enough love when I compare myself to my peers.	Family	.818
130	I feel like my family restricts my freedom when I compare myself to my peers.	Family	.721
134	I am not happy when I compare my financial possibilities with my peers.	Economic	.738
135	I feel like my family ignores my financial needs when I compare myself to my peers.	Economic	.753
125	I feel sad because I do not have the technological devices (phone, tablet, etc.) that my friends have.	Economic	.621
126	I believe that I have fewer opportunities in life when I compare myself to my peers.	Economic	.765
127	I feel upset that my peers take more vacation when I compare myself to them.	Economic	.719

### Convergent validity and reliability of RDS-AF

In addition to construct validity, the criterion-related validity of RDS-AF was also examined. In this context, convergent validity analysis was conducted. In the convergent validity analysis of RDS-AF, the Ostracism Experience Scale for Adolescents developed by Gilman et al. (2013) and adapted to Turkish culture by Sertelin Mercan (2016) and Multidimensional Perceived Support Scale developed by Zimet et al. (1988) and adapted to Turkish culture by Çakır and Palabıyık (1993) were used. Within the scope of convergent validity, RDS-AF, MPSS and OES-A were applied to 112 (64 females and 48 males) adolescents. Correlations between scales were calculated with Pearson Product Moment Correlation coefficient. The correlation between RDS-AF and MPSS

was found as -.63. Correlation coefficient between RDS-AF and the ignorance sub-dimension of OES-A was found as .44. On the other hand, no significant correlation was found between RDS-AF and the exclusion sub-dimension of OES-A. The convergent validity of RDS-AF was determined through composite reliability (CR) and Average Variance Extracted (AVE) values. Fornell and Larcker (1981) reported that the AVE value should be >.50, while Bagozzi and Yi (1988) reported that the CR value should be >.60.

The reliability of RDS-AF was examined in terms of internal consistency and stability. The internal consistency coefficient (Cronbach Alpha) of a scale being >.80 shows that the scale is a highly reliable scale with internal consistency (Karagöz, 2016). In test-retest reliability, a correlation coefficient between .60 and .80 is



interpreted as a “strong” correlation (Şencan, 2005). Test-retest method was used to find out the stability of the scale and RDS-AF was applied to 75 participants with an interval of 3 weeks. In this context, Cronbach Alpha, AVE, CR and Pearson Product Moment Correlation coefficient values of the scale are shown in

Table 6.

As shown in Table 6, Cronbach Alfa, AVE, CR and test-retest values of RDS-AF and its factors are higher than the theoretically explained criteria. Therefore, it can be said that the scale has high convergent validity and reliability.

**Table 6.** RDS-AF convergent validity and reliability values.

	<b>Cronbach alpha (≥.70)</b>	<b>AVE (≥.50)</b>	<b>CR (≥.60)</b>	<b>Test-retest (≥.70)</b>
RDS-AF	.89			.76
School	.85	.50	.85	
Family	.84	.57	.87	
Economic	.82	.51	.84	

### Scoring and interpreting RDS-AF

RDS-AF is responded to with options ranging between “Not like me at all (1)” and “Very much like me (7)” for each item. Therefore, the scores of these options are taken into account while scoring. In this context, the minimum possible score from the scale is 16, while the maximum possible score is 112. It can be said that higher scores indicate a higher level of relative deprivation.

### DISCUSSION

The aim of this study was to develop a measurement instrument to find out the relative deprivation levels of adolescents and to conduct validity and reliability analyses. Exploratory Factor Analysis (EFA) was conducted to understand the factor structure of the scale. It was found that RDS-AF included 3 factors and 16 items. The 3-factor structure found as a result of EFA was tested with CFA and fit index values were found as  $\chi^2/df = 2.69$ , RMSEA = .073, CFI = .93, IFI = .93, TLI = .91 and GFI = .90. These values were found to be within acceptable goodness of fit range (Jöreskog and Sörbom, 1993; Karagöz, 2016; Marsh et al., 1988; Tabachnick and Fidell, 2013). The reliability of RDS-AF was found by calculating the internal consistency coefficient. Cronbach Alpha coefficient was found as .89. An internal consistency coefficient (Cronbach Alpha) of  $>.80$  shows that the scale is a highly reliable scale with internal consistency (Karagöz, 2016). Test-retest method was used to find out the stability of RDS-AF. Pearson Product Moment Correlation Coefficient calculated within the context of test-retest was found as .76. In test-retest reliability analysis, a correlation coefficient between .60 and .80 is interpreted as a “strong” correlation (Şencan, 2005). Convergent validity analysis showed a negative and moderate significant correlation between RDS-AF and MPSS. A positive and moderate correlation was found between RDS-AF and the ignorance sub-

dimension of OES-A. On the other hand, no significant correlation was found between RDS-AF and the exclusion sub-dimension of OES-A. In this context, it can be said that RDS-AF is a highly reliable measurement instrument. In line with all these results, it can be said that RDS-AF provides a valid and reliable measurement of the relevant deprivation experienced by adolescents in terms of school life, family environment and economic status.

### LIMITATIONS AND RECOMMENDATIONS

Some limitations should be considered while evaluating the study results. In this study, RDS-AF was applied only to high school students. It is recommended to apply the scale to different age groups in future studies.

The concept of relative deprivation is a concept that can influence and that can be influenced by different psycho-social variables. For this reason, the relationship between relative deprivation and various variables such as resilience, level of hope and depression can be examined. In order to strengthen the theoretical background about relative deprivation in adolescents, it can be recommended to conduct studies on different groups (gender, region, having single parent, etc.) through this scale developed. It can also be recommended to examine the relationship between relative deprivation in adolescents and variables of subjective well-being, personality, identity, mental health, addiction and bullying.

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