

Development of the Social Interest Scale for Turkish Adolescents

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Abstract

Despite the existence of numerous scales and questionnaires that measure social interest, no such instrument has been developed specifically to measure social interest in Turkish adolescents. To that end, this study is designed to develop a valid and reliable scale to measure social interest in Turkish adolescents. Exploratory factor analysis was performed to determine the construct validity of the Social Interest Scale for Adolescents. As a result of the confirmatory factor analysis of the final 21-item scale, a four-factor structure was revealed. Each of these factors referred to a critical Adlerian construct related to social interest: belonging, sensitivity, coping, and helping. In line with these results, it is possible to indicate that the scale is a valid and reliable instrument in measuring the social interest levels of Turkish adolescents.

Keywords: adolescents, Individual Psychology, scale development, social interest.

The perspective of Individual Psychology, founded by Alfred Adler (1870–1937), is holistic, purposeful, development oriented, interpersonal, and responsibility based (Adler, 2003; 2008; Ansbacher & Ansbacher, 1956). One of the main pillars of the Adlerian approach (2008) is that humans are primarily social beings, and human behavior can be understood only in its social context. Adler states that humans are born in an environment that involves mutual relations and that all behaviors have social meanings. In other words, all humans emerge in a social environment, so human beings cannot be understood through individual treatment.

The basic concept on which the sociability of humans is based in the Adlerian approach is social interest. For Adler, social belonging is a human need, and people should develop meaningful relationships with other people in their society, which he conceptualized as social interest (Taylor, 2009). The term *Gemeinschaftsgefühl* has been translated into English as “social interest” (Ansbacher, 1968), “community feeling” (Ansbacher, 1992), “social sense,” “social feeling” (Stein & Edwards, 1998), and “togetherness feeling” (Frank & Shoshana, 2019). Adler (2011b) defines the concept of social interest as the individual’s identification with the whole, that is, the whole society, and the effort for the continuation of the society or whole that he or she identifies with. According to Ansbacher and Ansbacher

(1956), beyond empathy, social interest consists of the sense of belonging to humanity and life, altruistic attitude, and appreciation of others. Crandall (1980) described it as empathy, sympathy, caring for others, and acting for the benefit of others.

Social interest is not a quality that a person has. Rather, it is a psychological act; the ideal that guides our goals and directions in life. It is ideal to try to fight for ourselves and the common well-being, despite our flaws. Social interest can be seen in our choices and actions that express courage, trust, cooperation, contribution, and compassion (Yang et al., 2010).

Adler (2008) claimed that the individual is born with the potential for social interest and that social interest is a natural force that must be promoted by interactions in the family and school environment (Ansbacher & Ansbacher, 1956). He emphasized the importance of social interest for mental health and stated that it is a reflection of being healthy (Adler, 2011b). Previous studies have revealed that social interest is positively correlated with mental health (Ansbacher, 1991), well-being (Rennebohm et al., 2017), and psychological adjustment (Ergüner-Tekinalp & Terzi, 2016; Kalkan, 2009; Leak & Leak, 2006). Social interest is expressed through cognitive, behavioral, affective, and motivational processes, such as friendship, empathy, caring, belonging (feeling attached to a family, group, school, country, and the world), cooperation, courage (not being perfect), helping, sharing, contributing, tolerance, and caring (Ansbacher, 1991; Crandall, 1980; Leak & Leak, 2006; Manaster et al., 2003).

Research suggests that individuals reporting lower levels of social interest are lonelier, depressed (Leak & Williams, 1989), hopeless (Miller et al., 1986), have lower positive self-perceptions (Sweitzer, 2005), experience difficulties regarding self-confidence and psychological well-being in their relationships and work life (Ansbacher, 1991), and have fewer social skills and less academic success (Brigman & Molina, 1999). Also, research has suggested that individuals with lower social interest also have a lower desire for self-actualization (Hjelle, 1991), are more self-centered and prone to belittle others, and lack constructive goals (Nyunt & Myint, 2020).

Numerous social interest scales developed by different researchers exist in the literature (Alizadeh et al., 2017; Alizadeh et al., 2021; Crandall, 1980; Greever et al., 1973; Kalkan, 2009; Kosaka, 2011, 2014; Sahami & Mazlomi, 2012; Soyer, 2004; Sulliman, 1973; Wheeler et al., 1982). Some of these scales are based on Adler's life tasks (Ansbacher, 1991). And others are based on Individual Psychology concepts such as caring for others, trust in society, belonging, and courage. Subdimensions of these scales are named differently. For those studies that examine definitions of social interest, it is clear that life tasks are essential in the development of social interest (Crandall, 1982). Besides life tasks, many other features—such as helping others (Adler, 2003), being sensitive to people and environment (Ansbacher,

1991), feeling belonging in society (Manaster et al., 2003), cooperation (Crandall & Harris, 1991), and empathy (Watkins, 1994)—are also components of social interest. All in all, these studies emphasize the need for a scale that is designed to considering belonging, empathy, and cooperation components as well.

In Turkish, there are only two scales of social interest: the Social Interest Scale adapted by Soyer (2004) and the Adlerian Social Interest Scale—Romantic Relationship Form developed by Kalkan (2009). Both scales measure social interest in adults. The Social Interest Index (SII) developed by Greever et al. (1973), and based on Adler's life tasks, is a 5-point Likert-type scale that consists of 32 items about work, self-significance, friendship, and love. The scale was adapted into Turkish by Soyer (2004), who also added new items to the scale. The Turkish version of the scale consists of a single dimension with 52 items, which is not suitable for scale adaptation. Moreover, the scale developed by Kalkan (2009) measures social interest levels in romantic relationships. For this reason, these scales, which were adapted or developed in Turkish culture, cannot be used with adolescents. As a result, we decided to develop a new scale for adolescents.

The existing scales in the literature have been developed for children and adults (Crandall, 1980; Kosaka, 2011; Sahami & Mazlomi, 2012; Sulliman, 1973; Wheeler et al., 1982). It has been observed that some of these scales have limited use, and the psychometric evaluations of some are insufficient. A scale developed by Alizadeh et al. (2021) measures the social interest levels of adolescents aged 13–19 and consists of concern for others, responsibility, courage, and self-acceptance subscales. The existing scales were all developed at similar times and in different cultures and will contribute to the field of Individual Psychology.

The Current Study

A literature review of existing scales measuring social interest revealed that no research had been conducted in Turkey in a multifaceted way on the level of adolescents' social interest. Also, our scale is the first social interest scale developed in Turkey for adolescents. Adolescence, which is a turning point in human development, is a period during which many changes and developments occur concurrently in the transition from childhood to adulthood. Adolescence is a period in which the child takes steps toward becoming a member of society. For this reason, the knowledge learned, skills gained, and behaviors acquired during this period determine what kind of adult an adolescent will become. It is important to develop a reliable and valid measurement tool, and it is essential to consider social and cultural differences in the measurement of this construct that determines adolescents'

social interest levels. For this reason, we set out to develop a valid and reliable measurement tool that could be used in determining the social interest levels of adolescents.

Method

The stages to be followed in scale development differ across researchers. Some researchers focus on scale development in 10 stages (Carpenter, 2018), and some handle it in eight phases (DeVellis, 2016). In some studies, the development is treated as process rather than in stages (Murphy & Davidshofer, 2005). Although the stages of the scale development process and the names given to these stages vary, the steps to be followed throughout the process are similar.

In this study, first, the literature regarding social interest scales was examined in detail. Then, definitions of social interest and indicators of social interest were investigated. It is not possible to determine an exact number of items to include in the item pool at the beginning, but it has been suggested that the item pool should consist of more than 50% of items in the final form (DeVellis, 2016). Therefore, the item pool in this study consisted of 56 items. While the items were being developed, attention was paid to that each item contain a single and definite statement, complied with grammatical rules, and was not too long. Inclusion of reverse items was meant to prevent verification-acceptance bias (DeVellis, 2016). The item pool was examined by the two researchers who carried out the study and then was presented to the field expert for evaluation. A 35-item trial form was created by reorganizing the items in line with the views and recommendations of researchers and experts. In the trial form, items and subdimensions were reviewed, and subdimensions were named as belonging, sensitivity, and state of being in action.

After a theoretical review, items were analyzed by experts. An expert from the department of Psychological Counselling and Guidance checked the items to see whether each item measured social interest and was related to the relevant subdimension. The compliance of the items with the item-writing principles was evaluated by an expert from the Department of Measurement and Evaluation in Education, and an expert from the Department of Turkish Education evaluated the comprehensibility of the expressions and appropriateness of the language. In this phase, one item was removed on the basis of the experts' feedback, and corrections were made on some items. The final trial form consisting of 34 items was created with a Likert scale ranging from 1 (*totally inappropriate*) to 5 (*totally appropriate*).

Next, a pilot study was carried out with 25 high school students. In the literature, the number of participants should be between 24 and 36 for the pilot application (Johanson & Brooks, 2010). The scale was applied to the students as a group in their classes, and clarity of the items, clarity of

the expressions, and the meaning of each item were discussed with students. Students' opinions were gathered and corrections were made on missing and unclear points.

In this study, data were collected from three different independent samples in three phases. The first phase was exploratory factor analysis (EFA); the second, confirmatory factor analysis (CFA); and the third, test–retest reliability.

Procedure

Sampling. There are different views on sample size for the development of measurement tools. The number of participants should be between 5 and 20 times the number of items (Kline, 2013; Stevens, 2012; Tavşancıl, 2005). Following these recommendations, taking potential missing data into account, 352 high school students were surveyed in the first phase. In the second phase—after omitting items on the basis of EFA—450 high school students were surveyed.

Ethical Issues. Ethics approval was obtained from the Gazi University Scientific Research and Ethical Review Board and followed the Helsinki Declaration. The required permissions were granted by the Ministry of Education. High school students were informed about the study and their approval was also obtained. Only volunteer students participated in the study. The survey took 10–15 minutes to complete.

Data Analysis. Before starting data analyses, extreme values, outliers, and missing values were explored. To determine structural validity, the Social Interest Scale for Adolescents (SISA) was tested using both EFA and CFA. EFA was performed using principal component analysis with Promax rotation. In addition, a parallel analysis was applied to determine the factorial structure of the scale. CFA was conducted with a different study group to evaluate the construct validity of the model that emerged after EFA (Kline, 2010). In this study, chi-square and degrees of freedom (χ^2/df), root mean square error of approximation (RMSEA), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), Tucker–Lewis index (TLI), and comparative fit index (CFI) values were taken into consideration. The IBM SPSS 21, AMOS 21, and JASP 10.2 packages were used for data analysis.

Measures. For demographics, data on participants' gender, age, school types, and grades were collected through a personal information form.

The Child Depression Scale was developed by Kovacs (1981), and Öy (1991) investigated its validity and reliability in Turkish. This scale, which was developed to measure the level of depression in children, consists of 27 items and is applied to children and adolescents aged 6–17 years. Within the scope of this study, the internal consistency coefficient of Cronbach's α was calculated as .81 in the reliability analysis of the Child Depression Scale. Adler (2011a) argued that there is a negative relationship between

depression and social interest, and that the healthy way forward for a depressed person is to cooperate with society. In this study, the depression scale was used as criterion validity in Phase 1.

The Child and Adolescent KA-Sİ Empathic Tendency Scale was developed by Kaya and Siyez (2010), and it consists of 17 items and two sub-dimensions: emotional empathy and cognitive empathy. In this study, the Cronbach's α coefficient was found to be .89 for the whole Child and Adolescent KA-Sİ Empathic Tendency Scale, .80 for cognitive empathy subscale, and .85 for emotional empathy subscale. Previous studies have reported that one of the best ways to express social interest is empathy (Adler, 2011a; Crandall & Harris, 1991), which is an important indicator of social interest. In this study, the empathy scale was used as criterion validity in Phase 2.

Phase 1

The purpose of Phase 1 was to determine the factor structure of the SISA, its reliability, and its subscales and any relationships between the Child Depression Scale and SISA for criterion-related validity.

Participants

This study was carried out with 352 high school students in Ankara. Before analysis of the data, participants who did not fill in the scale completely were excluded and analysis was carried out with 306 participants. Of participants, 55% ($n = 167$) were female, and 45% ($n = 139$) were male. About 52% ($n = 160$) of students were in ninth grade, and 48% ($n = 146$) were in 10th grade. The students' age range was 14–18 years, and the average age was 14.93.

Results

Construct Validity—EFA. To determine the suitability of the data for factor analysis, first, Kaiser-Mayer-Olkin (KMO) and Barlett sphericity tests were performed. According to Kaiser (1974), KMO values of .50 or greater, and according to Pallant (2001), values of .60 or greater, indicate an acceptable sample. In this study, the KMO value was .86, which is greater than the recommended KMO values. The Barlett test was also found to be significant ($\chi^2 = 2278.90$; $p < .0001$). Thus, our main sample proved itself adequate for EFA.

As for principal component analysis, any factor with an eigenvalue greater than 1 is considered significant for factor extraction, and factor loadings equal to or greater than .40 and items with low interitem correlations ($>.20$) are considered acceptable (DeVellis, 2016; Field, 2005). Initially,

Table 1
Factor Loadings

Item	F1	F2	F3	F4
I1	.780			
I4	.770			
I31	.719			
I17	.699			
I33	.684			
I13	.672			
I23	.643			
I34	.594			
I16		.821		
I14		.786		
I24		.721		
I15		.608		
I26		.465		
I18			.792	
I25			.744	
I32			.715	
I7			.682	
I5				.701
I2				.671
I3				.632
I20				.611
Eigenvalue	5.974	2.623	1.678	1.299
Variance explained	19.812	13.157	11.663	10.483
Cumulative variance	55.116			

Note. F = factor, and I = item.

eight factors showed eigenvalues greater than 1, accounting for approximately 59% of observed variance. However, 34 items of the SISA were subjected to item analysis, and items with low factor loadings ($< .40$), low interitem correlations ($< .20$), and items loaded equally on two factors were rejected one by one.

Table 2
Comparison of Factor Analysis and Parallel Analysis Eigenvalues ($n = 1000$)

Eigenvalue	F1	F2	F3	F4	F5	F6
FA eigenvalue	7.776	3.706	1.922	1.761	1.406	1.307
PA eigenvalue	1.771	1.664	1.587	1.523	1.468	1.414

Note. F = Factor.

After removing 13 items, the process resulted in a good four-factor scale that explains approximately 55% of variance. Table 1 presents factor loadings of the items.

As Table 1 indicates, the first factor has eight items with factor loadings ranging from .59 to .78; the second factor has five items with factor loadings ranging from .46 to .82; the third factor has four items with factor loadings ranging between .68 and .79; the final factor has four items with factor loadings ranging from .61 to .70. It was found that the first factor explains 19.81% of observed variance and was named "belonging." The second factor explains 13.16% of observed variance and was named "sensitivity." The third factor explains 11.66% of observed variance and was named "coping." The fourth factor explains 10.48% of observed variance and was named "helping." All factors explain 55.12% of the total variance.

Parallel Analysis. In addition to factor analysis, parallel analysis (Horn, 1965) was conducted to determine the number of factors. Table 2 shows the eigenvalues and factor numbers determined by the parallel analysis method.

As Table 2 shows, parallel analysis indicates a four-factor structure. It is seen on the fifth factor, the eigenvalues of the data sets produced in parallel with the baseline data are higher than the eigenvalues of the raw data. This shows that parallel analysis supports the four-factor structure.

After parallel analysis, the relationship between subdimensions of the scale was analyzed with Pearson's correlation. Correlation of the subdimensions ranged from .19 to .47 and had a positive and significant relationship.

Criterion-Related Validity. Pearson's correlation of the Child Depression Scale and SISA revealed that total scores of SISA ($r = -.60, p < .01$); belonging ($r = -.65, p < .01$); coping ($r = -.47, p < .01$); sensitivity ($r = -.19, p < .01$), and helping ($r = -.18, p < .01$) subscales were negatively correlated with total scores of the Child Depression Scale.

Reliability. Cronbach's α was calculated to determine the reliability of the scale. The Cronbach's α was .88 for the total score, .87 for the belonging, .77 for the sensitivity, .76 for the coping, .67 for the helping subfactor.

In addition to the Cronbach's α , ω coefficients (McDonald, 1999) were calculated: .87 for the total scale, .87 for belonging, .78 for sensitivity, .77 for coping, and .69 for helping.

Phase 2

As a result of EFA, a structure with four subdimensions and 21 items was obtained. To evaluate the construct validity of this model that emerged from EFA, CFA was conducted on the 21 items to test the instrument's model fitness. First- and second-order CFA were performed in an independent study group.

Participants

The study was conducted with 450 high school students in five different schools in Ankara. Before data analysis, participants who did not fill in the scale completely were excluded, and analysis was carried out with 404 participants. Of participants, 32% ($n = 131$) were male and 68% ($n = 273$) were female. Of the students, 19% ($n = 78$) were in English preparatory class, 14% ($n = 56$) were in ninth grade, 40% ($n = 162$) were in 10th grade, 18% ($n = 71$) were in 11th grade, and 9% ($n = 36$) were in 12th grade. The types of schools that participants were enrolled in were as follows: 35% ($n = 142$) in social sciences high school, 32% ($n = 128$) in Anatolian high school, 22% ($n = 90$) in science high school, 11% ($n = 44$) in Imam Hatip Anatolian high school. In addition, the age range of the students was between 14 and 19 years, with an average of 16.04.

Results

CFA. First of all, CFA was carried out for the 21-item and 4-factor SISA. Modification indexes suggested allowing for three-error covariance between closely related items. The goodness-of-fit indexes were reached before any modification was made, the fit indexes where the proposed modification suggestions were carried out, and the second-order factor analysis fit indexes are shown in Table 3.

As Table 3 suggests, fit indexes of the CFA for 21-item and four-factor structure of SISA suggested an inadequate model fit ($\chi^2/df = 2.56$, GFI = .898, CFI = .887, AGFI = .871, TLI = .870, and RMSEA = .062). Modification indexes suggested allowing for three-error covariance between closely related items 14 and 20, 8 and 10, and 4 and 7. Correlated error terms were allowed across similarly worded items to rule out response bias.

The GFI, CFI, AGFI, and TLI values of .95 or greater demonstrate a perfect model fit, and values of .90 or greater demonstrate a good model fit

Table 3
Fit Indexes

χ^2	<i>df</i>	GFI	CFI	AGFI	TLI	RMSEA
Model 1: First-order 21-item						
467.890	183	.898	.887	.871	.870	.062
Model 1: First-order 21-item (Items 14–20 error covariance added)						
426.116	182	.908	.903	.883	.888	.058
Model 1: First-order 21-item (Items 8–10 error covariance added)						
400.161	181	.913	.913	.889	.899	.055
Model 1: First-order 21-item (Items 4–7 error covariance added)						
380.637	180	.917	.920	.893	.907	.053
Model 2: Second-order CFA 21 item						
426.831	182	.909	.903	.884	.888	.058

(Kline, 2010). An RMSEA value of less than .08 shows adequate fit, and values less than .06 indicate a good model fit (Brown, 2006). A χ^2/df value of 5 or less indicates an acceptable fit, and a value of 3 or less shows perfect fit (Kline, 2010). As seen in Table 3, Model 1 showed good fit: first-order 21-item (item 4 and 7 error covariance added), $\chi^2/df = 2.11$, RMSEA = .053, GFI = .92, CFI = .92, AGFI = .89, and TLI = .91). Second-order CFA demonstrated good fit indexes ($\chi^2/df = 2.34$, RMSEA = .058, GFI = .91, CFI = .90, AGFI = .88, and TLI = .89), but only AGFI and TLI values were found to have acceptable fit indexes. Finally, the CFA demonstrated good fit for the four-factor model. Figure 1 shows the path diagram for the second-level factor analysis.

Criterion-Related Validity. Pearson's correlation analysis between the Child and Adolescent KA-Sİ Empathic Tendency Scale and SISA showed that total scores of SISA ($r = .45, p < .01$), helping ($r = .53, p < .01$), and sensitivity ($r = .43, p < .01$) were positively correlated with total scores of Child and Adolescent KA-Sİ Empathic Tendency Scale. No significant relationship was found between scores of the coping subfactor and the Child and Adolescent KA-Sİ Empathic Tendency Scale ($r = .09, p > .05$).

Pearson's correlation analysis between the cognitive empathy subscale and SISA showed that total scores of SISA ($r = .38, p < .01$), helping ($r = .37,$

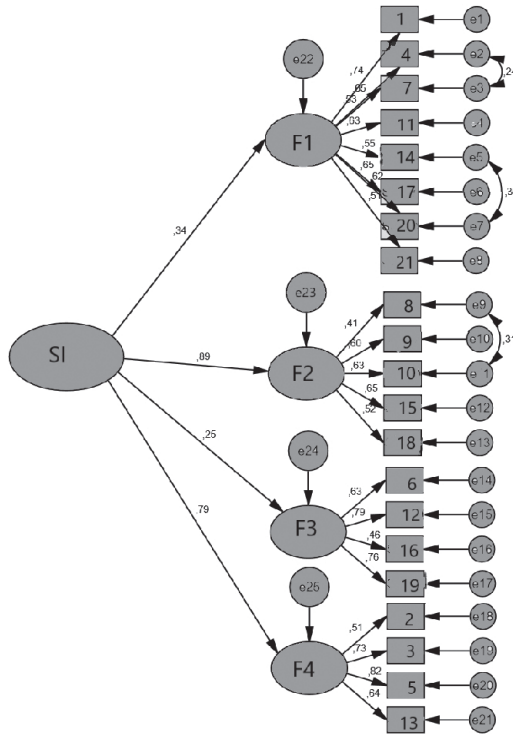


Figure 1. CFA Measurement Model with Parameter Estimates for 21-item Scale.

$p < .01$), belonging ($r = .25, p < .01$), sensitivity ($r = .27, p < .01$), and coping ($r = .21, p < .01$) were positively correlated with total scores of the cognitive empathy subscale.

Pearson's correlation analysis between the emotional empathy subscale and SISA showed that total scores of SISA ($r = .40, p < .01$), helping ($r = .53, p < .01$), and sensitivity ($r = .46, p < .01$) were positively correlated with total scores of the emotional empathy subscale. No significant relationship was found between the scores of the coping subscale and emotional empathy ($r = -.00, p > .05$).

Reliability. After CFA, Cronbach's α was calculated to determine the reliability of the scale again. The Cronbach's α was .83 for the total scores of SISA and belonging subscale, .71 for sensitivity, .81 for coping, and .77 for helping. In addition to Cronbach's α , ω coefficients (McDonald, 1999) were also calculated. It was found to be .83 for the total scale, .84 for belonging, .73 for sensitivity, .76 for coping, and .77 for helping.

Phase 3

The purpose of Phase 3 was to examine the test–retest reliability of the SISA.

Participants

The time interval was too short between test and retest, which may have meant that participants remembered some answers, but long time intervals can cause maturation. Tavşancıl (2005) stated that appropriate time intervals are between 2–3 and 4–6 weeks, and Peirce (1995) suggested between 2 and 4 weeks. In this study, test–retesting was performed with 60 participants in two classes 3 weeks later. Six participants who were not in the first or second week were removed from the data set, and the analysis was carried out with 54 participants.

Results: Test–Retest Reliability

The test–retest reliability coefficient was .84 for belonging, .74 for sensitivity, .73 for coping, .70 for helping, and .87 for the overall scale.

Discussion and Conclusions

The current study has described the development and psychometric properties of the Social Interest Scale for Adolescents (SISA). Items were generated on the basis of a thorough review of the literature and existing scales for different age groups. In the development phase, the scale's item analysis, exploratory factor analysis, confirmatory factor analysis, and reliability were explored. Results of the EFA and CFA demonstrated a good factorial structure for 21 items and four subdimensions. The EFA revealed a four-factor structure of the instrument: belonging, sensitivity, coping, and helping. This four-factor structure, which is the result of factor analysis, also coincides with the theoretical basis of Individual Psychology. Adler (1956) argued that social interest is the sense of sociality, the individual's relationship with other people, cooperation with society, and the individual's identification with other people. When the literature is examined in terms of the emotions and behaviors related to social interest, courage, belonging to society and humanity, feeling of alienation, cooperation, solidarity, empathy, sharing, cognition structures, and behaviors are among the characteristics associated with it (Adler, 2011b; Crandall, 1980; Manaster et al., 2003). As for CFA, the four-factor model demonstrated good (GFI = .91 and CFI = .90) and acceptable (AGFI = .88 and TLI = .89) fit indexes (Kline, 2010). Finally, when the reliability results are considered, Cronbach's α reliability and ω coefficients regarding total social interest and scale subdimensions were .70

and greater; thus, it is possible to say that the scale has a satisfactory level of reliability (Creswell, 2012).

During the development of SISA, two scales were used separately in both EFA and CFA stages within the scope of criterion validity. We used the Child Depression Scale for criterion validity in the EFA stage; in the CFA stage, we used the Child and Adolescent KA-Sİ Empathic Tendency Scale. Watkins (1994) found that individuals with higher social interest have lower levels of depression. For Adler (2011a), human isolation makes it impossible for a person to achieve life goals. With this isolation, it is not possible to sustain one's own life and humanity. Therefore, individuals have to cooperate with the people around them. This cooperation is the development of social interest, and the only way to solve life problems (Adler, 2003). Results supported the expected negative relationship between SISA and the Child Depression Scale. Crandall and Harris (1991) stated that social interest is expressed through cooperation, altruism, and empathy. Adler (2011a) defined social interest as seeing through someone else's eyes, hearing with someone else's ears, and feeling with someone else's heart; that is, he emphasized the relationship between social interest and empathy. Erginsoy (2010) stated that people generally prefer to be empathetic (also in the realm of social interest), to manage their environment and be successful, and to transform that into a lifestyle. Those who fail to do this act aggressively, with a need to establish power over other people. Trying to be superior or gain power over events causes stress in life. In this respect, results supported the expected positive relationship between SISA and the Child and Adolescent KA-Sİ Empathic Tendency Scale.

To conclude, SISA has satisfying psychometric properties in terms of validity and reliability. However, further testing of the psychometric properties of the scale is recommended, particularly conducting studies with different populations.

Limitations and Recommendations

The current study developed the Social Interest Scale for Adolescents, with four subdimensions—belonging, sensitivity, coping, and helping—and 21 items. The need for this scale was recognized with discussion and analysis of the psychometric properties of existing scales in the literature, their handling of different dimensions of social interest, and the absence of a measurement tool for social interest for adolescents in Turkish culture. Of course, there are limitations to this study. Any self-report measure is potentially biased, and this may have been observed in this study, despite random sample selection. The helping subscale had borderline levels of Cronbach α reliabilities compared to the commonly reported value of .70 (Creswell, 2012) in EFA. Thus, researchers should carefully examine the reliability of the subscales when using the SISA.

Author Note

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