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Investigating validity, reliability and measurement invariance of the Rosenberg Self-Esteem Scale: a comparison study

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ABSTRACT

The purpose of this study is twofold: (a) to examine validity and reliability of the Rosenberg Self-Esteem Scale (RSES) using four competing factorial models (b) to assess measurement invariance across gender with a sample of college students in Turkey. Confirmatory and multigroup confirmatory factor analyses were used to analyse the data from 291 college students. The results indicated that a two-factor correlated model (i.e., positive self-esteem and negative self-esteem) provided a better fit for the data than the previously validated the other three competing models. In contrast to the first factor (self-esteem positive), the second factor (self-esteem negative) was significantly associated with psychological well-being. Both of the factors had strong internal consistency reliabilities. Also, the RSES had measurement invariance across gender. Overall, the RSES is a valid and reliable self-assessment tool that can be used to assess self-esteem and develop self-esteem-related interventions for college students.

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Assessment; measurement invariance; psychological well-being; risk factors and self-esteem

Self-esteem is one of the widely known significant personality characteristics in the field of counseling and psychology. It has been conceptualised as a person's self-image and attitudes towards him/herself and evaluation of ones's self worth. Individuals with high self-esteem tend to have higher levels of self-respect, self-love, positive feelings about themselves, and perceive themselves a worthy of other's love and respect (Brown et al., 2001, p. 616; Rosenberg, 1979, p. 54). However, low self-esteem is reflected in dissatisfaction with oneself, negative self-judgment with the belief that there is something fundamentally wrong with them (Kernis, 2003).

Although self-esteem is substantially important across all age span, it is particularly critical for mental health well-being during college years, because people tend to solidify their personal identity during late teenage and early adulthood years. However, the transition to a new environment, dealing with academic and financial problems, being exposed to culturally diverse and different ideologies, as well as some college-specific challenges, such as lack of current knowledge among professors, a lack of university facilities and resources, and a lack of off-campus transportation that costs both time and

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money (Arslan & Akkas, 2014; Akinlotu & Ertan, 2018) may present substantial challenges and negatively impact college students' self-image.

It is essential to investigate self-esteem and related personal and environmental factors for college students. If not addressed, lack of self-esteem may cause substantial mental health and well-being problems. Research indicated that lower levels of self-esteem is significantly associated with depression and anxiety problems and a higher level of self-esteem is significantly associated with better psychological health, social adjustment and quality of life (Eklund et al., 2018). Additionally, college students who have a higher level of self-esteem tend to have better college adjustment and a higher level of retention and success than students with a lower level of self-esteem (Grant-Vallone et al., 2003; Shim et al., 2012). However, male tend to have a higher level of self-esteem than females during late adolescence to middle adulthood, and this gender gap has been pronounced in Western societies compared to Eastern societies (Bleidorn et al., 2016). In addition, people from East Asian countries tend to report lower self-esteem scores than people from Western countries (Cai et al., 2007), which might be related to the collectivist tendencies of Eastern societies. It is possible that cultural background impact interpretation of Self-Esteem Scale items (Gnambs et al., 2018). Overall, the research shows that self-esteem is related to mental health and well-being, particularly for college students, and culture has a significant impact on understanding self-esteem. However, further research on this topic is needed.

An important first step for the use of self-esteem in research and practice is to have a reliable and valid psychometric measurement tool. Rosenberg (1979) developed the Rosenberg Self-Esteem Scale (RSES), currently a widely known self-esteem measure, to assess self-esteem. It includes five positive and five negatively worded items pertaining to self-worth and self-acceptance that are presented alternately to reduce the effect of the response set. The RSES has been translated into several languages – English, French, and Norwegian – and validated across different countries (Monteiro et al., 2021).

Although, RSES is originally proposed as a unidimensional scale (Martín-Albo et al., 2007), there have been many other research studies that indicated that the RSES has two factorial structures (Eklund et al., 2018). Researchers argued that the two factorial structures might be due to method artefacts, as positive and negative items load on different factors. Therefore, Tafarodi and Milne (2002) proposed a different version of the two-factorial structure for the RSES, which was composed of the first five and last five items, and named the factors self-competence and self-liking. Recently, Monteiro et al. (2021) developed a shorter scale: a brief version of the RSES (BRSES) composed of the six items from the original scale that overcame the method artefact effect.

Purpose of the study

Currently, the literature provides the different factorial structures for the RSES. In addition, research has indicated that sociodemographic and cultural variables such as culture collectivist and individualistic tendencies, gender and income level have a significant impact on the self-esteem construct. Currently, there is a lack of recent research that investigated the factorial structure of RSES college students. Low self-esteem has been associated with academic and emotional disengagement, academic disinterest, poor academic achievement and poor self-efficacy among college students (Alghamdi et al., 2023; Acosta-Gonzaga, 2023). On the other hand, high self-esteem has been linked to academic resilience and performance (Kwek

et al., 2013). For this reason it is crucial to have validity and reliability self-esteem scale for college students. Therefore, this purpose of this study is twofold: first, to investigate psychometric properties of the RSES to determine the best fit model for among the four competing models: (a) a one-factor solution composed of 10 items as proposed in the original version of the RSES, (b) a two-factor solution composed of the first five items (i.e., self-competence items) and the last five items of the RSES (i.e., self-liking items), (c) a one-factor solution composed of six items from the original RSES and (d) a two-factor solution composed of positive self-esteem and negative self-esteem items, and second, to examine measurement invariance of the RSES across gender with a sample of Turkish college students.

Method

Procedures and participants

Convenience sampling method was used as the sampling procedure. After receiving approval from the respective organisations to conduct the study, the data were collected with the help of class instructors from different universities located in the east, and southeast regions of Turkey. Before participating in the study, the potential participants were informed about the study, and they were informed that participation was totally voluntary and that not participating in the study would not have any negative effect on their relationship with the class instructors. Additionally, it was clarified that no personal information would be collected and the general results would be published. The volunteer participants completed an online survey packet using Google Forms via a link shared with the students. The participants who completed the survey at their respected universities were given adequate time to complete the questionnaire. It took approximately 20–25 min to complete the questionnaire. The data was placed a safe and password protected computer for data analysis. To be included in the current study, the participants had to be college students, Turkish citizens and over 18 years old.

The participants of the current study included 291 college students (207 male and 84 female). The participants had a mean age of 21.22 ($SD = 2.81$), ranging from 18 to 36 years old. Among them, 24% were freshman ($N = 57$), 34% were sophomore ($N = 79$), 21% were junior ($N = 49$) and 21% were senior ($N = 50$) college students. All of the participants were Turkish. Forty-five percent of the participants had a family income lower than the minimum wage, and 55% had a family income higher than the minimum wage.

Measures

The Rosenberg Self-esteem Scale

The Rosenberg Self-Esteem Scale (RSES) measures self-esteem which reflects the favorable/positive or unfavorable/negative attitudes of a person towards himself/herself (Rosenberg, 1979). The scale is composed of positively and negatively worded 10 items. Each item is rated on a four-point rating scale (1 = *strongly agree* to 4 = *strongly disagree*). A total score is obtained by summing the scores of the individual items after reverse scoring the negatively worded items, with higher scores indicating higher levels of self-esteem. The total score ranges from 0 to 30. Scores between 15 and 25 are considered normal self esteem; scores below 15 suggest low self-esteem. Sample items include "On the whole, I am satisfied with

myself" and "At times I think I am no good at all". The internal consistency reliability coefficients (Cronbach's alpha) for the RSES were reported to be .92 (Rosenberg, 1979). The test-retest reliability over a period of two weeks was reported to be .85 and .88, reflecting excellent stability. In the current study, the internal consistency reliability coefficient (Cronbach's alpha) of the RSES was reported to be .84, indicating high reliability (Taber, 2018).

The Flourishing Scale

The Flourishing Scale (FS) is a measure reflecting psychological well-being measuring self-perceived success in human functioning, such as relationships, self-esteem, purpose and optimism (Diener et al., 2009, 2010). The scale is composed of eight items; and each item is rated on a seven-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*). A total score is obtained by summing the scores of the individual items, with higher scores indicating higher levels of positive functioning and psychological well-being. The total score range from 8 to 56; a high score represents a person with many psychological resources and strengths. Sample items include "I lead a purposeful and meaningful life" and "My social relationships are supportive and rewarding".The internal consistency reliability coefficients (Cronbach's alpha) for the FS were reported to be .87 (Diener et al., 2010). In the current study, the internal consistency reliability coefficient (Cronbach's alpha) of the FS was reported to be .84, indicating high reliability (Taber, 2018).

Self-Construal Scale (SCS)

The Self-Construal Scale measures independent (emphasis on separateness and individuality) and interdependent (emphasis on connectedness and relations) self-construal. The National Survey of Midlife Development in the United States (MIDUS II) used a six-item abbreviated version of the SCS called the Self-Construal Measure, which was used in this study. Each item is rated on a seven-point Likert rating scale ranging from 1 (strongly agree) to 7 (strongly disagree). Factor-based scores are used for each subscale, with higher scores reflecting higher standing on the scale. Total score range from 1 to 7, higher scores suggest higher levels of independent and interdependent self-construal. Sample items include "My happiness depends on the happiness around me" and "I act in the same way no matter who I am with". The internal consistency reliability coefficients (Cronbach's alpha) were reported to range between .17 to .27 for independence and .31 to. 37 for interdependence subscales (Ryff et al., 2017; MIDUS, 2004-2006). It is possible that low number of items resulted in low internal consistency reliability estimates. However, the literature includes studies with similar estimates for the scale (Ryff et al., 2017). The Cronbach`s alphas for the independence and interdependence subscales for the sample in the present study were .55 and .75, respectively.

Data analysis

The current study used confirmatory and multigroup factor analysis to investigate the factorial structure and measurement invariance of the RSES. The R statistical programming software which is a widely used free software was used for data analyses. To test the model fit, we used the chi-square goodness-of-fit test and several other fit indices. Chi-square goodness-

of-fit assesses the magnitude of discrepancy between the sample and the fitted covariance. However, the chi-square test is sensitive to sample sizes (Hu & Bentler, 1995). Therefore, as recommended by SEM researchers, we used several additional fit indices to test the model fit (Weston et al., 2008). We used the χ^2/df ratio to correct the chi-square goodness-of-fit for sample size and the comparative fit index (CFI) to compare the improvement of the fit of the researchers` model over a more restricted model, and the Tucker–Lewis index (TLI) compared the researchers` model with a so-called null/baseline model. The following fit index cut values were recommended for an acceptable fit: a nonsignificant chi-square, a relative chi-square (χ^2/df) in the range of 3–1, and values greater than .90 for CFI and TLI indicate an acceptable fit and values greater than.95 indicate a good fit (Xia & Yang, 2019). In addition, a root-mean-square error of approximation (RMSEA), which assessed error approximation of the model fit in the population with a 90% confidence interval, was reported. A value of less than .05 is considered a close fit, and values up to .08 were considered reasonable errors of approximation in the population (Hu & Bentler, 1995; Kaplan, 2009; Weston et al., 2008). Finally, Bayesian Criterion Information (BIC) was used to compare model fits, and a lower BIC value indicated a better fit.

In addition, Pearson correlation coefficients were used to determine the relationship between self-esteem and psychological well-being, measured by FS and independent and interdependent self-construal, measured by SCS to enhance understanding of the scale`s validity. A correlation coefficient between 0 and .3 is considered weak, between .3 and .7 is moderate, and between .7 and 1 is strong. It is expected that self-esteem is significantly positively associated with psychological well-being. T tests, ANOVA, and descriptive analysis, including means and standard deviations, were used to provide a general description of the sample.

Results

The results indicated that the students had a mean score of 26.2, a moderate level of self-esteem ($M = 2.62$, $SD = .81$). However, the scores were lower than the mean self-esteem scores reported for 53 nations ($M = 30.85$, $SD = 4.82$) (Schmitt & Allik, 2005). The difference between the studies might be due to sampling differences. Additionally, the results supported the idea that people tend to positively evaluate themselves as the participants received a higher score than the theoretical midpoint score of 25 for the RSES (Schmitt & Allik, 2005). In contrast to previous research that reported higher self-esteem levels of females (Bleidorn et al., 2016), one-way analysis of variance (ANOVA) results indicated that there were no significant differences between male ($M = 2.59$, $SD = .81$) and female students ($M = 2.64$, $SD = .81$), F (1, 290) = .02, $p = .87$; and also between freshman ($M = 2.77$, $SD = .76$), sophomore ($M = 2.55$, $SD = .80$), junior ($M = 2.58$, $SD = .72$) senior ($M = 2.57$, $SD = .90$) students F (4, 286) = 1.39, $p = .23$). Additionally, age was not significantly correlated with the participants' self-esteem scores ($r = -.02$, $p = .69$).

Confirmatory factor analysis

In the current study, we evaluated the four competing CFA models: (a) the one-factor model composed of the original 10 items, (b) the two-factor intercorrelated model composed of the first five and the last five items, (c) the one-factor model for the BRSES

Table 1. Fit Indices for tested factorial models for RSES.

Model	χ/df	CFI	TLI	RMSEA 90% CI	BIC
1. One-factor model	18.42	.75	.68	.24 (.22-.26)	7161
2. Two-factor model (first five and last five items)	16.01	.79	.71	.22 (.21-.24)	7066
3. One-factor model of the Brief BRES	26.10	.79	.58	.29 (.25-.33)	4006
4. Two-factor model (positive and negative items)	9.08	.88	.85	.16 (.15-.18)	6830
4.1. Two-factor model (excluding item #8)	8.80	.91	.88	.14 (.16-.18)	5929
4.2. Two-factor model excluding item #8 with correlated error terms	2.71	.98	.97	.07 (.05-.09)	5776

composed of six items from the original scale and (d) the two-factor intercorrelated model composed of positive and negative items. The results are shown in Table 1.

Among the models, the two-factor model composed of positive and negative items provided relatively better fit indices than the other models. Examination of the factor loadings indicated that the factor loadings for the model ranged from .82 to .94 for the first factor and from .68 to .86 for the second factor, except for the factor loading of item # 8, "I wish I could have more respect for myself", which was .17. It is important to note that the lowest factor loading for item #8 was reported in previous studies for Japanese, Malaysian, South Korean and Turkish samples (Schmitt & Allik, 2005). Structural equation modelling researchers indicated that items with extremely low factor loadings add very little to explanatory power to the model and interfere with the relationship between the estimated parameter and the linking construct (Hulland, 1999; Nunnally, 1978); therefore, items with factor loadings lower than .40 or .50 should be dropped from models (Hulland, 1999). After dropping item #8, the two-factor model composed of positive and negative items provided a better fit between the model and the data χ^2 (26, $N = 291$) = 229.00, $p < .001$, $\chi^2/df = 8.80$, CFI = .91, TLI = .88, RMSEA = .14 90% CI [.16, .18], BIC = 5929.48. However, some of the fit indices, the χ^2/df, TLI, and RMSEA, were not in the acceptable range. Examination of the modification indices suggested that error terms for two pairs of items had to be correlated. The correlated error terms indicate that there are residuals associated with the items that cannot be explained by the evaluated model, and knowing the residual of one item helps in knowing the residual associated with another item. After correlation of error terms for items #2 (i.e., I feel that I have a number of good qualities) and # 6 (i.e., I take a positive attitude towards myself) and items #1 (i.e., I feel that I am a person of worth, at least on equal plane with others) and #10 (i.e., At times, I think I am no good at all), the model provided a good fit for the data: χ^2 (24, $N = 291$) = 65.06, $p < .001$, $\chi^2/df = 2.71$, CFI = .98, TLI = .97, RMSEA = .07 90% CI [.05, .09], BIC = 5776.89.

The first factor was related to positive evaluations towards oneself, positive self-image and positive aspects of self-esteem, and the second factor was related to negative evaluations towards oneself, negative image and negative aspects of self-esteem (Mimura & Griffiths, 2007). Previous research labelled these factors as self-esteem positive and self-esteem negative (Kielkiewicz et al., 2020). A careful review of the items in each factor suggested that these two factors should be labelled as self-esteem positive and self-esteem negative. Figure 1 shows detailed information on the model.

Reliability

Cronbach's alpha coefficients were used to measure internal consistency reliability estimates. The alphas for the positive self-esteem and negative self-esteem factors were .95 and .87, respectively. The results indicated a high level of reliability for the positive

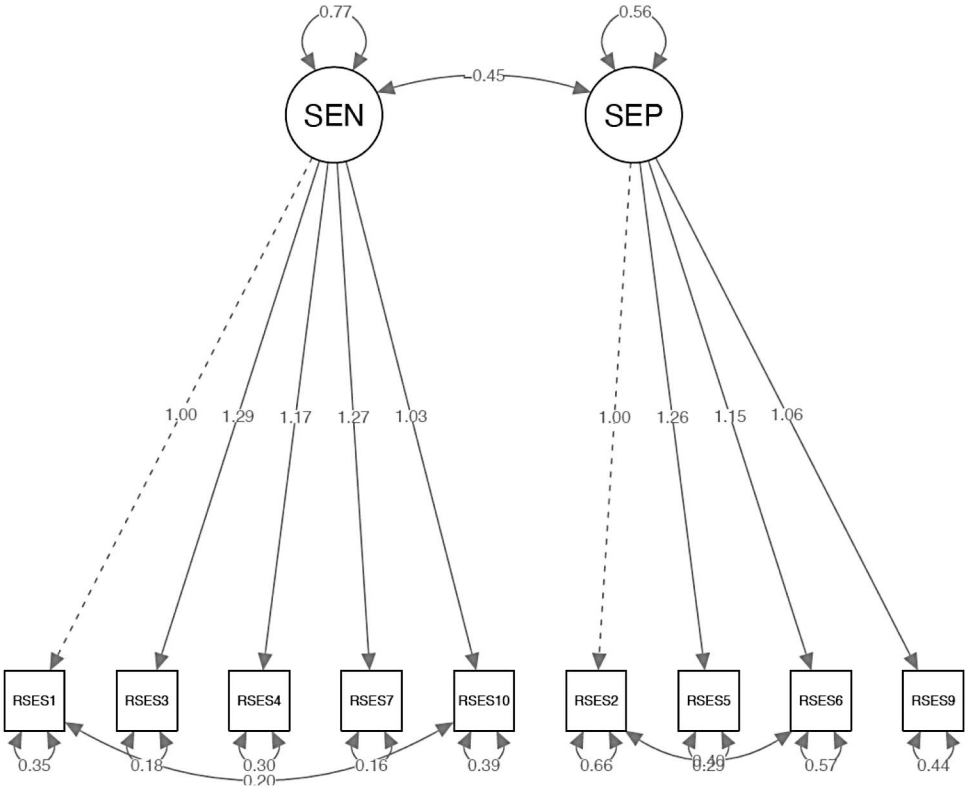

Figure 1. Two-factor structure of the RSES composed of positive and negative items.

and negative self-esteem factors (α ≥. 80; Sriken et al., 2021). The internal consistency reliability of the factors in this study was relatively higher than the internal consistency reliability estimates of the factors reported in previous reliability studies for RSES ($\alpha_1 = .87$, $\alpha_2 = .75$; $\alpha_1 = .75$, $\alpha_2 = .76$; Mimura & Griffiths, 2007).

External correlates

The self-esteem scores were correlated with scores of psychological well-being using the Pearson product-moment correlation coefficient. The results indicated that negative self-esteem was significantly correlated with psychological well-being ($r = .18$, $p < .01$; a weak negative correlation); however, positive self-esteem did not have a significant association with psychological well-being ($r = .01$, $p = 76$). We also correlated the factor scores with the self-construal scores. The results indicated that there was no significant correlation between positive self-esteem and independent and interdependent self-construal ($r = -.03$, $p = .55$; $r = .02$, $p = .66$) or between negative self-esteem and independent and interdependent self-construal ($r = -.09$, $p = .11$; $r = .02$, $p = .69$).

Multigroup confirmatory factor analysis

Measurement invariance of the RSES across gender was examined using multigroup confirmatory factor analysis. First, configural existence across male and female

students was tested. The results provided a good fit between the model and the data χ^2 (48, $N_{female} = 207$, $N_{male} = 84$) = 102.14, $p < .001$, $\chi^2/df = 2.12$, CFI = .97, TLI = .96, RMSEA = .08 90% CI [.06, .11], BIC = 5974, indicating that a two-factor structure exists for both male and female students. Second, the metric invariance was tested. The test results provided a good fit χ^2 (55, $N_{female} = 207$, $N_{male} = 84$) = 105.78, $p < .001$, $\chi^2/df = 1.90$, CFI = .97, TLI = .97, RMSEA = .08 90% CI [.05, .10], BIC = 5938, indicating that there was no significant difference between factor loadings for male and female students. Third, the scalar invariance was tested. The test results provided a good fit χ^2 (62, $N_{female} = 207$, $N_{male} = 84$) = 113.91, $p < .001$, $\chi^2/df = 1.82$, CFI = .97, TLI = .97, RMSEA = .07 90% CI [.05, .09], BIC = 5906, indicating that there was no significant difference between the intercepts of male and female students. Additionally, the chi-square difference between the metric model and the configural model ($\Delta\chi^2$ ($\Delta df = 7$, $N = 291$) = 3. 63, $p = .82$.) and between the metric model and the scalar model ($\Delta\chi^2$ ($\Delta df = 7$, $N = 291$) = 8.13, $p = .32$) were not significant. The results are shown in Table 2 and Figure 2.

Table 2. Measurement invariance of the participants scores on the RSES across gender and income level.

Model	χ/df	CFI	TLI	RMSEA 90% CI	BIC
Configural invariance across gender	2.12	.97	.96	.08 (.06-.11)	5974
Measurement invariance across gender	1.90	.97	.97	.08 (.05-.10)	5938
Scalar Invariance across gender	1.82	.97	.97	.07 (.05-.09)	5906

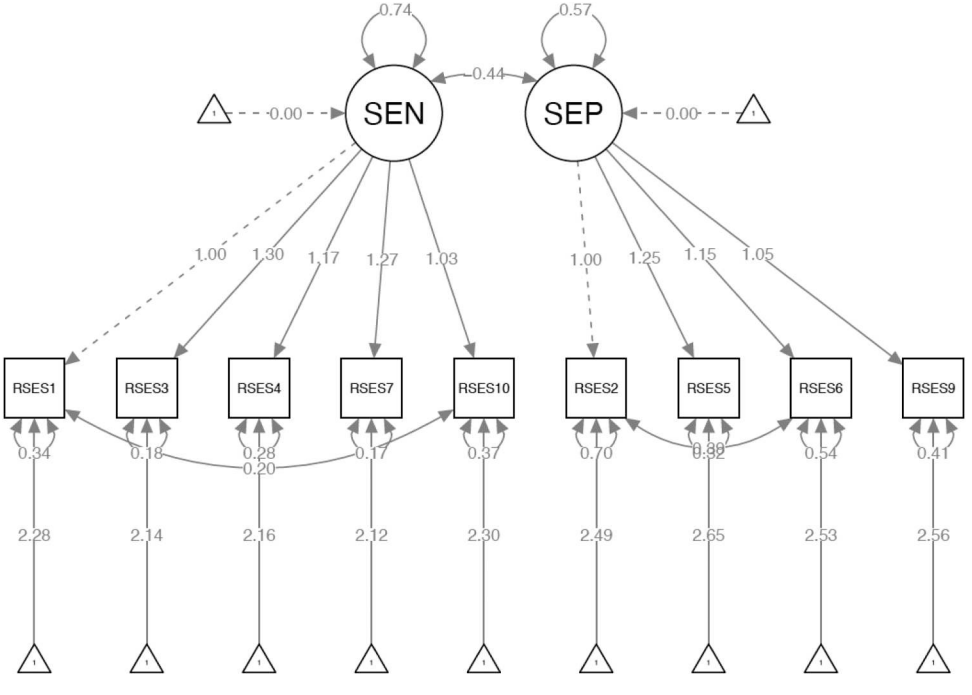

Figure 2. Measurement Invariance of the RSES across gender.

Discussion

The current study investigated the validity and reliability of the RSES with a sample of Turkish college students. The results of this study indicated that a two-factor correlated model composed of positive and negative items provided a better fit to the data than the other models. The factors were moderately correlated with each other ($r = .62$) and were differentially associated with psychological well-being, providing support for the multidimensionality of the RSES. Both of the factors had strong internal consistency reliabilities. Finally, there was measurement invariance across genders.

Although researchers have suggested that positively and negatively wording test items reduce response bias and preclude respondents' tendency to agree/disagree with items regardless of their content, such alternation may produce systematic variance and errors, leading unidimensional structures to appear multidimensional (Chen et al., 2010). Although the results of this study were in line with previous studies that supported the RSES having two subscales: positive self-esteem and negative self-esteem (Schmitt & Allik, 2005), it is important to consider method artefacts in psychometric validation studies. Additional analysis indicated that 50% of the variance was explained by a single factor, suggesting that the method effect cannot totally be overridden (Eichhorn, 2014). Overall, the results supported that RSES is a valid and reliable measurement tool with two subscales measuring the same latent construct (Schmitt & Allik, 2005).

The results indicated a significant relationship between negative self-esteem and psychological well-being; however, positive self-esteem did not have a significant association with it. The findings were in line with previous studies indicating that positive self-esteem and negative self-esteem are differentially related to external psychological constructs (Schmitt & Allik, 2005). The positive items of the RSES represent positive self-image, and the negative items represent negative self-image. Although a higher level of endorsement of negative items may reflect negative emotional reactions, dysfunctional behaviours and symptomology (Hamm, 2009), a higher level of endorsement of positive items might not reflect psychological well-being, as psychological well-being is more than having positive self-image and perceptions. It is related to a healthy state of mind, body and social structures all together.

Although previous research indicated that females tend to report lower levels of self-esteem than males (Buyukgoze-Kavas, 2009), this study found no significant differences between male and female students. This finding was consistent with a previous Turkish study indicating no gender differences between the self-esteem levels of male and female students (Buyukgoze-Kavas, 2009). The number of women in higher education has steadily increased since 1914 from .74% to 47.5% in 2018–2019 (Çakıroğlu Çevik & Gündüz Hoşgör, 2020). This situation led to a positive self-image and a higher level of self-esteem for Turkish female college students. Also, education level is one of the important indicators of social status in Turkey; therefore, receiving a college degree may have a more pronounced impact on the self-esteem level of female Turkish college students. However, it is important to note that the rate of females who attend college in Turkey is still lower when compared to the European countries.

Implications

The results provided further support for the relationship between the negative self-esteem items and poor psychological well-being. Therefore, college professionals need

to pay attention to students who are more likely to endorse negative self-esteem items. Although self-esteem is considered a relatively stable individual trait (Altmann & Roth, 2018), it can be increased utilising self-esteem appropriate interventions (Center for Clinical Intervention, 2005). RSES and its factors can be a starting point to determine and select suitable interventions for college students. The literature provides various self-esteem interventions, including but not limited to cognitive behavioural therapies, reminiscence-based interventions, support groups and positive psychology interventions. Cognitive behaviour therapy intervention focuses on dysfunctional self-schemata and aims to change negative self-evaluations and perceptual and interpretive biases in processing information. Reminiscence-based interventions focus on recalling positive memories and re-evaluating negative events. For information on specific self-esteem interventions, the readers are referred to Lim et al. (2005). Overall, college health professionals could provide such therapies and interventions to students based on their needs irrespective of gender.

Limitations

This study has several limitations that limit the generalisability of the results. This study is a cross-sectional study; the results only indicate the relationship between the variables; therefore, a cause-effect relationship cannot be determined. In addition, this study used a flourishing scale for external correlation; therefore, we cannot determine the relationship between self-esteem and other psychological well-being constructs, such as cognitive well-being. Finally, the current study used self-report scales and did not use any other objective criteria for measuring self-esteem and psychological well-being; therefore, social desirability remains an important factor in interpretations of the results.

Ethical statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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Appendix

The Turkish Version of The Self-Esteem Scale

Rosenberg Benlik Saygısı Ölçeği

Lütfen 1'den 4`e kadar derecelendirilmiş ölçeği kullanarak aşağıdaki ifadelerden her birisine ne kadar katılıp katılmadığınızı belirtiniz. 1- Kesinlikle Katılıyorum, 2- Katılıyorum, 3-Katılmıyorum, 4-Kesinlikle Katılmıyorum. Sizin için uygun olanı seçiniz.

1) Kendimi en az diğer insanlar kadar değerli buluyorum.
(a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

2) Bazı olumlu özelliklerim olduğunu düşünüyorum.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

3) Genelde kendimi başarısız bir kişi olarak görme eğilimindeyim.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

4) Ben de diğer insanların birçoğunun yapabildiği kadar bir şeyler yapabilirim.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

5) Kendimde gurur duyacak fazla bir şey bulamıyorum.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

6) Kendime karşı olumlu bir tutum içindeyim.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

7) Genel olarak kendimden memnunum.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

8) Kendime karşı daha fazla saygı duyabilmeyi isterdim.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

9) Bazen kesinlikle kendimin bir işe yaramadığını düşünüyorum.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum

10) Bazen kendimin hiç de yeterli bir insan olmadığını düşünüyorum.
a) Kesinlikle Katılıyorum b) Katılıyorum c) Katılmıyorum d) Kesinlikle Katılmıyorum