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The Hopelessness and Helplessness Scale: Validity and Measurement Invariance

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This study set out to investigate the psychometric properties of the Hopelessness and Helplessness Scale (HHS), which was designed to measure an individual's levels of hopelessness and helplessness. First, the structural validity of the scale was evaluated using confirmatory factor analysis. The results supported a two-factor model with an acceptable model fit. Convergent validity was investigated using correlations with the subscales of the Hopelessness, Helplessness, and Haplessness Scale; and criterion-related validity via correlations with depression and anxiety symptoms assessed using the Brief Symptom Inventory. All correlations were positive and statistically significant at the $p < .001$ level. The reliability findings of the scale indicate that the calculated Cronbach's alpha and McDonald's omega (ω) values demonstrate high internal consistency for both subdimensions. Furthermore, measurement invariance across gender and between student and non-student groups was examined using multi-group confirmatory factor analysis. The results supported configural, metric, scalar, and strict invariance, indicating that the HHS is a psychometrically robust instrument suitable for comparative research across gender and academic status.

Keywords: Hopelessness, helplessness, confirmatory factor analysis, measurement invariance

Hopelessness and helplessness are fundamental psychological constructs frequently addressed together in the clinical psychology and psychiatry literature, particularly within the context of depressive disorders, as they deeply impact an individual's cognitive, emotional, and behavioral functioning (Abramson et al., 1989; Joiner et al., 2005). Within Beck's (1974) cognitive theory, hopelessness is described as the tendency to hold negative expectations about the future, the loss of hope in achieving personal goals, and diminished belief in the possibility of positive change. Prior research has demonstrated that hopelessness is associated with an elevated risk of suicide (Douglas et al., 2025; Hutchinson et al., 2025) as well as depressive thinking patterns (Yanmaz et al., 2025; Beck et al., 1974; Metalsky & Joiner, 1992), psychopathology (Vatan & Dağ, 2009), and psychological well-being (Vatan & Lester, 2025).

Helplessness is described as a reduction in motivation, expectations, and emotional response due to repeated exposure to uncontrollable stressors (Seligman, 1975). This distorted cognitive appraisal makes the person believe that he or she is not able to influence the outcome of his or her actions, therefore resulting in a passive and demotivated attitude after some time (Maier & Seligman, 1976). Learned helplessness is not only seen in depression but has also been linked to other psychopathological disorders such as anxiety disorders and post-traumatic stress disorder (Overmier & Murison, 2000; Salcioglu et al., 2017; Swendsen, 1997).

Current literature reveals a reciprocal interaction between hopelessness and helplessness, with both constructs being particularly pronounced under chronic stress and related sources of the same (Dixon et al., 1992; Duru & Balkis, 2024; Henkel et al., 2002). These emotions result in a decreased life satisfaction, decreased perceived self-efficacy, and psychological resilience (Dogruyol & Tayinmak, 2023; Uacar et al., 2019). Furthermore, individuals exhibiting high levels of hopelessness and helplessness are reported to experience elevated levels of depression and anxiety (Gallagher et al., 2025; Hong et al., 2024; Pryce et al., 2011; Swendsen, 1997; Yanmaz et al., 2025; Waikar & Craske, 1997), more frequent suicidal ideation, decreased functionality, and reduced help-seeking behaviors (Joiner et al., 2005; Ribeiro et al., 2018). Mercer and Kane (1979) also noted that both states can co-occur in individuals who have lost their sense of control.

Hopelessness and Helplessness: Towards Conceptual Clarity

Although there is an interrelation between helplessness and hopelessness, they represent different psychological states. While Beck (1974) defines hopelessness in terms of a cognitive state that is characterized by negative expectations about the future, Seligman (1975) conceptualizes helplessness as a psychological reaction to uncontrollable events. As Lester (2001) emphasizes that although these two constructs are complementary to each other, they are fundamentally different. Helplessness is related to a person's perceived ability to cope, whereas hopelessness is related to the perception that current circumstances can neither be changed (Gençöz et al., 2006). According to Ejdemyr et al. (2021), a person who feels helpless is one that feels that their efforts will not be effective, while a hopeless person is someone who thinks that even if successful, their efforts will not change the outcome.

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Hopelessness and helplessness are terms that are often used interchangeably, but the mechanisms behind the terms are different. This confusion has frequently led to conceptual inaccuracy in the description of processes related to depression and stress. Generally speaking, hopelessness refers to the loss of optimistic expectations about the future and reduced meaning or purpose of life (Beck et al., 1974; Abramson et al., 1989). Helplessness, in turn, is about the now: it is an attitude towards a lack of control over the surrounding world and it is likely to be expressed through behavioral passivity or withdrawal (Maier & Seligman, 2016). This distinction represents not just a matter of words, but it is a theoretical distinction between future-oriented cognitive hopelessness and instant motivational failure (Peterson & Steen, 2002).

The recent theoretical views have started to describe helplessness as both more dynamic and complex as the initial conceptualization. The new concept of learned helplessness (Maier & Seligman, 2016) places the phenomenon in the context of neurocognition. In this view, helplessness is not only an action-based remnant of previous failure, but also a symptom of the derailed regulation under the prefrontal-amygdala connections. The failure of the prefrontal cortex to provide adequate top-down control increases the likelihood of stressors being appraised as uncontrollable, and this increases emotional distress and depresses motivation. The empirical evidence of Grahek et al. (2019) also includes the lack of cognitive control and the flexibility of emotion-regulation as the root of this process, with helplessness being associated with the entire dysregulation of self-regulatory systems.

Conversely, the hopelessness theory of depression describes vulnerability in more of a futuristic perspective. In this case, the maladaptive attributional styles play a role as a thinking intermediary between the negative occurrences and depressive perspectives. Those who explain adverse events by internal, stable and global factors would tend to anticipate that they will continue happening in the future (Abramson et al., 1989; Alloy et al., 2012). In the long run, such a pessimistic generalization causes the loss of any sense of purpose and deterioration of meaning systems, which result in lasting declines in psychological well-being (Gomez-Tabares et al., 2024; Nasiri & Bahram, 2008; Zhang et al., 2025). In this regard, hopelessness is the projection of the psychological impact of helplessness in time, i.e. that it is not possible to do something now but that there will be nothing to be done in the future.

In a broader conceptual perspective, helplessness is the experience and immediate loss of control and hopelessness turns this loss into a future-directed cognitive map. The two are connected by cycles of appraisal, attribution and regulation. This cycle can be derailed through theoretical and clinical work which increasingly points at the importance of improving perceived control or encouraging cognitive reappraisal (Southwick et al., 2005; Garland et al., 2017). Although the difference between these constructs might seem as mere, explaining how the two interact offers a clearer model on which one can understand how the state of distress under situations leads to the development of persistent depressive cognition. Furthermore, this viewpoint draws attention to the promise of intervention approaches in which flexible emotion regulation is fostered as one of the pathways to the restoration of agency, meaning, and consequently, hope.

In this context, treating these two basic constructs, hopelessness and helplessness, together and with an integrated approach is of importance both for academic study and for clinical practice. Although there are a variety of different measurement tools that measure these various concepts in the literature, these are frequently studied separately or are interchangeable constructs. However, people often experience both feelings of helplessness and hopelessness, especially in psychopathological processes coupled with a prolonged period of stress and the effects of these feelings may be compounded by their interaction (Mercer & Kane, 1979; Dixon et al., 1992).

Among the existing tools that evaluate both hopelessness and helplessness simultaneously, the most well-known is the Hopelessness, Helplessness, and Haplessness Scale developed by Lester (2001) and adapted into Turkish by Gençöz and colleagues (2006). Upon closer examination, however, several limitations of this scale become apparent. For instance, the item under the hopelessness subscale, “It is very unlikely that I will get any real satisfaction in the future”, is highly abstract and may evoke an intense sense of helplessness rather than purely measuring hopelessness. Another issue is the statement “I am confident that I will complete college.” This item only provides a meaningful and valid evaluation for college students; it may lose its validity for people of different ages and educational levels because it does not correspond to their life context. This situation weakens the semantic validity of the responses and limits the generalizability of the scale. The statement “I have difficulty starting to do things” in the helplessness subscale can also indicate a lack of motivation rather than helplessness. The item “I certainly feel useless at times” reflects an affective dimension of self-worth rather than the construct of helplessness. While the concepts of hopelessness and helplessness are traditionally discussed together, they actually reflect distinct psychological processes. Hopelessness is primarily about negative expectations for the future, whereas helplessness more directly reflects perceptions of control and competence in managing a situation. This distinction highlights a significant limitation that the current scale may not adequately capture both domains in a valid and integrated way.

Therefore, the need for new psychometric instruments that can simultaneously and validly assess the constructs of hopelessness and helplessness is clearly evident in the literature. Although the Hopelessness-Helplessness Scale (HHS) was developed by Duru and Balkıs (2024) to fulfil this need, the fact that its psychometric properties have not yet been extensively investigated is a significant shortcoming. In this context, the present study aims to fill this gap by conducting a detailed investigation of the validity and reliability of the HHS.

Hopelessness and Helplessness Scale

The Hopelessness and Helplessness Scale (HHS) was developed by Duru and Balkıs (2024). The HHS includes two subscales, hopelessness and helplessness, each consisting of six items. The items are answered on a five-point Likert scale ranging from 1 (never) to 5 (always). A sample statement for the hopelessness dimension is: “I don’t believe the future will be better than today”, while a sample item for the helplessness dimension is: “I generally feel helpless”.

The factor structure of the HHS was examined via exploratory factor analysis (EFA). According to the EFA results, two factors with eigenvalues greater than 1 explained a total of 72.939% of the variance. The first and primary factor, Helplessness (6 items), accounted for 59.843% of the variance with an eigenvalue of 7.158. The second factor, Hopelessness (6 items), accounted for 13.146% of the variance with an eigenvalue of 1.578. Internal consistency coefficients were found to be high (α = .89 for Hopelessness; α = .95 for Helplessness), and the overall Cronbach's alpha of the scale was α = .94.

The Current Study

The primary aim of this study is to conduct a comprehensive evaluation of the psychometric properties of the Hopelessness and Helplessness Scale (HHS), which was developed to measure individuals' levels of hopelessness and helplessness. To this end, the structural validity of the scale will first be tested by using the confirmatory factor analysis (CFA). In addition, evidence for convergent and predictive validity will be obtained to examine the relation of the HHS to relevant psychological constructs.

Furthermore, measurement invariance analyses will be conducted to assess whether the scale works the same across gender groups and sample types (student vs. non-student). When comparing groups, we assume the measurement tool assesses the same psychological construct across all demographics. When this assumption is true, our comparisons are valid and we can have a rich interpretation about the differences and similarities among groups. However, if this assumption fails, the meanings implicated by our comparisons may become meaningless (Milfont & Fischer, 2010). Invariance analyses will help identify the scale's applicability for comparative research with diverse populations. Briefly, this study aims to present robust psychometric evidence for the usage of the HHS as a valid and reliable instrument for assessing hopelessness and helplessness..

Methods

Participants

This study was carried out with the voluntary participation of a total of 424 individuals who were reached via a variety of universities and social media platforms across Turkey. Participants ranged in age from 18 to 61 years (M = 28.10, SD = 10.46). Out of the total sample, 300 people were identified as female, and 124 as male. Concerning marital status, 70% of the participants were single, 29.2% were married, 0.5% were divorced and 0.2% were widowed. In terms of educational background, 63.9% were undergraduate students or graduates, 14.4% had completed high school, 9.4% held a master's degree, 5% had an associate degree, 4% a doctoral degree, 2.6% middle school education, and 0.7% had completed only primary school. Additionally, 57.1% of participants indicated that they were currently students. Participants who were not students reported that they worked in various occupations, such as teaching, technical services, engineering, healthcare, banking, law, and manual labor. Participation in the study was entirely voluntary, and only the data from participants who fully completed the online questionnaire were included in the analysis. Approval for the study was obtained from the ethics committee, participants were informed about the researcher's purpose, and consent forms were collected.

Measures

Hopelessness and Helplessness Scale (HHS). The HHS was developed by Duru and Balkıs (2024) to assess participants' levels of hopelessness and helplessness. Each of the two subscales consists of six items rated on a 5-point Likert scale (1 = never, 5 = always). The internal consistency coefficients were calculated as α = .89 for the Hopelessness subscale and α = .95 for the Helplessness subscale. The overall Cronbach's alpha for the scale was α = .94.

Depression and Anxiety Symptoms. To assess participants' levels of depression and anxiety, the Depression and Anxiety subscales of the *Brief Symptom Inventory* (BSI; Derogatis, 1993) were used. Each subscale contains six items rated on a 5-point scale ranging from 0 (not at all) to 4 (extremely). Participants rated the items according to their emotional experiences during the previous six months, including the day of data collection. The Turkish adaptation of these subscales was carried out by Balkis and Duru (2020) as well as Duru and Balkis (2019). The internal consistency coefficients were α = .74 for the Depression subscale and α = .80 for the Anxiety subscale.

Hopelessness, Helplessness, and Haplessness Scale. This scale was developed by Lester (2001), drawing on Beck et al.'s (1974) Hopelessness Scale, to measure hopelessness and helplessness as distinct constructs. It also includes a "haplessness" subscale to assess perceived lack of control. The scale comprises three subscales with 10 items each, totaling 30 items. In the Turkish adaptation by Gençöz et al. (2006), the overall Cronbach's alpha was reported as .90. Subscale reliabilities were α = .76 for Hopelessness, α = .81 for Helplessness, and α = .81 for Haplessness.

Data Analysis

Data analysis was carried out in three stages using SPSS 27 and AMOS 22 software. In the first stage, the structural validity of the HHS was tested using the Confirmatory Factor Analysis (CFA). The model's fit to the data was assessed with a number of fit indices, such

Table 1. Descriptive statistics and correlation analysis (N = 424)

Variables	1	2	3	4	5	6
1-Hopelessness (5 items)	1					
2-Helplessness (5 items)	.61**	1				
3-Hopelessness (10 items)	.75**	.59**	1			
4- Helplessness (10 items)	.50**	.69**	.62**	1		
5-Depression	.56**	.63**	.57**	.59**	1	
6-Anxiety	.38**	.57**	.38**	.47**	.75**	1
Mean	12.47	11.17	27.27	25.44	8.40	7.01
Standard Deviation	5.26	4.74	9.77	8.81	5.47	6.05
Skewness	.349	.585	.268	.341	.469	.861
Kurtosis	-.643	-.166	-.356	-.372	-.521	-.045

**p<.001

Table 2. Fit indices for the confirmatory factor analysis models

Model	χ^2 (df, N)	p	χ^2/df	RMSEA (90% CI)	SRMR	CFI	TLI	NFI	RFI
Model 1 (12 items)	252.94 (53, 268)	< .001	4.77	.12 [.10–.13]	.06	.89	.87	.87	.84
Model 2 (10 items)	96.67 (34, 268)	< .001	2.84	.08 [.06–.10]	.05	.96	.94	.93	.91
Model 3(Single Factor-10 items)	164.503 (35, 268)	<.001	.4.700	.17 [.15-.20]	.11	.79	.74	.76	.69

Note. χ^2 = chi-square; df = degrees of freedom; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index; TLI = Tucker–Lewis index; NFI = normed fit index; RFI = relative fit index.

as chi-square per degree of freedom (df), CFI, TLI, RMSEA, and SRMR in accordance with the criteria proposed by Hu and Bentler (1999). In the second stage, convergent validity and criterion-related validity were checked. For convergent validity, Pearson correlation coefficients were used to examine the correlations between Hopelessness and Helplessness subscales of the Hopelessness, Helplessness, and Hapelessness Scale and the corresponding subscales of the HHS. In terms of criterion validity, the relationships among hopelessness, helplessness, depression, and anxiety were analyzed according to previous findings in the literature.

In the final stage, measurement invariance of the HHS was tested using multi-group confirmatory factor analysis. To determine invariance across groups, changes in model fit were evaluated based on the criteria of $\Delta CFI \leq 0.01$ and $\Delta RMSEA \leq 0.015$ (Chen, 2007).

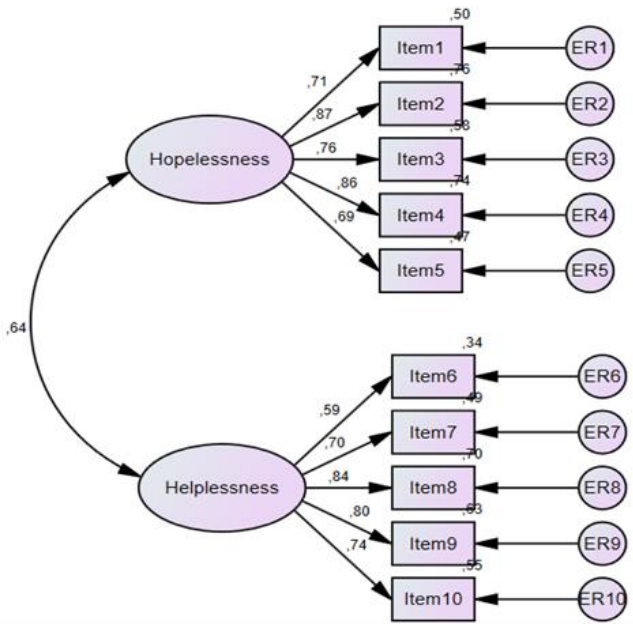

Figure 1. Confirmatory factor analysis

Results

Validity Analyses

As part of the validity analyses of the Hopelessness and Helplessness Scale (HHS), construct validity, convergent validity, and criterion-related validity were examined sequentially.

Construct Validity. To evaluate the construct validity of the HHS, confirmatory factor analysis was conducted on a sample of 268 participants (144 females, 124 males). The analysis results indicated that the model did not demonstrate an adequate fit to the data: $\chi^2(53, N = 268) = 252.938$, $p < .001$; $\chi^2/df = 4.772$; RMSEA = .12, 90% CI [.10–.13]; SRMR = .06; CFI = .89; TLI = .87; NFI = .87; RFI = .84 (Table 2). These results suggest that the model did not exhibit a satisfactory fit. Therefore, modification indices were reviewed to improve the model.

The modification indices revealed high error covariances (ranging between 1 and 2) between certain item pairs in both the Hopelessness and Helplessness subscales. This indicated that these item pairs shared substantial common variance and may have negatively impacted model fit due to content redundancy.

Within the Hopelessness subscale, a high error covariance was found between Item 1, "*I have no belief that things will improve in the future,*" and Item 2, "*I don't believe the future will be better than today*". Upon inspection, both items were determined to assess beliefs about the future and overlapped substantially in content. In line with the study's findings, one item was removed from the scale. Furthermore, within the Helplessness subscale, a significant error covariance was identified between Item 1, "*I don't think I can overcome problems without the support of others,*" and Item 2, *"I don't think I can solve problems on my own"*. Since both items overlapped around the theme of self-efficacy, they were considered repetitive in nature. Therefore, to preserve the integrity of the scale, one of these items was excluded.

Following these revisions, one item was eliminated from each subscale, resulting in a 10-item version of the scale. This revised form was subsequently re-examined through a Confirmatory Factor Analysis (CFA). The updated *CFA* results indicated that the revised model demonstrated a good fit to the data: $\chi^2(34, N = 268) = 96.669$, $p < .001$; $\chi^2/df = 2.843$; RMSEA = .08, 90% CI [.06–.10]; SRMR = .05; CFI = .96; TLI = .94; NFI = .93; RFI = .91(Table 2, Figure 1).

To examine discriminant validity, a single-factor model was also tested and compared with the hypothesized two-factor model. The hypothesized two-factor model showed good fit, $\chi^2(34, N = 268) = 96.669$, $p < .001$; $\chi^2/df = 2.843$; RMSEA = .08; CFI = .96, etc. In contrast, the single-factor model demonstrated poor fit, $\chi^2(35, N = 268) = 164.503$, $p < .001$; $\chi^2/df = 4.700$; RMSEA = .17; CFI = .79, etc., supporting the discriminant validity of the two subscales (Table 2).

Convergent Validity. We evaluated convergent validity by correlating the Hopelessness and Helplessness subscales of the HHS with the parallel subscales of the Hopelessness, Helplessness, and Haplessness Scale (HHHS, Table 1). The results showed a significant positive correlation between the Hopelessness subscale of the HHS and the same subscale of the HHHS ($r = .75$, $p < .001$). Likewise, the Helplessness subscales of both instruments were found to be highly and significantly correlated ($r = .69$, $p < .001$). These results suggest that the two scales measure the same conceptual constructs and support the convergent validity of the HHS.

Criterion-Related Validity. We examined the relationship between the hopelessness and helplessness subscale of HHS and depression and anxiety subscales of the Brief Symptom Inventory to

Table 3. Multi-group confirmatory analysis

	X^2 (*df*)	*p*	X^2/ df	*CFI*	*RMSEA (90 % CI)*	Δ X^2 (df)	*p*	Δ*CFI*	Δ*RMSEA*
Measurement Invariance– Gender (*N* = 268**)**									
Configural	140.773 (68)	.000	2.070	.949	.063(.049 - .078)				
Metric	153.127 (78)	.000	1.963	.947	.060(.046 - .074)	12.355 (10)	.26	.002	.003
Scalar	153.221 (79)	.000	1.940	.948	.059(.045 - .073)	0.093 (1)	.76	-.001	.001
Strict	167.738 (89)	000	1.885	.945	.058(.044-.071)	14.517 (10)	.15	.002	.001
Student-Non-Students (*N* =424)									
Configural	207.283 (68)	.000	3.048	.944	.070(.059 -. 081)				
Metric	223.112 (78)	.000	2.860	.942	.066(.056 - .077)	15.829 (10)	.11	.002	.004
Scalar	223.887 (79)	.000	2.834	.942	.066(.056 - .076)	0.775 (1)	.38	.000	.000
Strict	246.925 (89)	000	2.774	.937	.065(.055. -.075)	23.038 (10)	.011	.005	.001

examine the criterion-related validity of the HHS(Table 1). The results from correlation analysis indicated that hopelessness was positively related to depression *(r* = .56, *p* < .001) and anxiety (*r* = .38, *p* < .001). Helplessness also showed a strong relationship with depression (*r* = .63, *p* < .001) and anxiety (r = .57, p < .001). Overall, these results indicate that the HHS reliably measures structures associated with psychological symptoms. These findings suggest that the HHS has criterion-related validity.

Measurement Invariance

Measurement invariance analysis was conducted to determine whether a measurement instrument assesses the same construct across different groups (Başusta & Gelbal, 2015). In the present study, we examined the measurement invariance of the Hopelessness and Helplessness Scale (HHS) across gender using configural, metric, scalar, and strict invariance tests (Chen, 2007).

In the first stage, confirmatory factor analysis (CFA) was conducted separately for male and female participants, and acceptable fit indices were obtained for both groups. For males: χ^2(34, N = 124) = 64.136, χ^2/df = 1.886, *p* < .001; RMSEA = .09 (90% CI: .05–.12); SRMR = .06; CFI = .95; TLI = .94. For females: χ^2(34, *N* = 144) = 76.638, χ^2/df = 2.254, *p* < .001; RMSEA = .09 (90% CI: .06–.12); SRMR = .06; CFI = .95; TLI = .93.

Subsequently, metric, scalar, and strict invariance were evaluated using multi-group confirmatory factor analysis (MG-CFA). Following the criteria proposed by Chen (2007), measurement invariance is considered supported when changes in model fit indices remain within ΔCFI ≤ .01 and ΔRMSEA ≤ .015. In the present study, the observed ΔCFI and ΔRMSEA values fell within these recommended thresholds, indicating that all four levels of invariance, configural, metric, scalar, and strict, were established. These results suggest that the Hopelessness and Helplessness Scale (HHS) exhibits consistent structural properties across gender groups (Table 3).

Using the same procedures, we tested the measurement invariance of the HHS across student and non-student participants. Initially, we tested configural invariance through separate confirmatory factor analyses for each group. The findings from confirmatory factor analysis indicated acceptable model fit in both populations. For students: χ^2(34, *N* = 242) = 122.447, χ^2/df = 3.602, *p* < .001; RMSEA = .10 (90% CI: .09–.12); SRMR = .06; CFI = .94; TLI = .92. For non-students: χ^2(34, *N* = 182) = 83.200, χ^2/df = 2.447, *p* < .001; RMSEA = .09 (90% CI: .06–.11); SRMR = .05; CFI = .95; TLI = .94.

Next, we conducted a multi-group confirmatory factor analysis (MG-CFA) to test whether the scale met all levels of invariance, including structural, metric, scalar, and strict. The findings showed that the scale met all levels of invariance. These results indicate that the Hopelessness and Helplessness Scale (HHS) has equivalent structural properties in both student and non-student groups(Table 2).

Reliability

To evaluate the reliability of the Hopelessness and Helplessness Scale, we calculated Cronbach's alpha and McDonald's omega coefficients based on a sample of 424 participants. The hopelessness subscale showed high internal consistency (α = .88; ω = .89), as did the helplessness subscale (α = .88; ω = .88). Together, these findings highlight the strong reliability of both subscales.

Discussion

The main objective of this study was to evaluate the validity of the Hopelessness and Helplessness Scale (HHS), designed to assess individuals' levels of hopelessness and helplessness, and to thoroughly examine its psychometric properties. The findings revealed that the scale demonstrated robust validity in various areas, including structural, convergent, and criterion-related validity. Furthermore, evidence of measurement invariance was found between genders and between student and non-student groups. When the results are evaluated as a whole, it can be said that the HHS is a valid and reliable tool for comparative research.

The confirmatory factor analysis confirmed the two-factor structure of the Hopelessness and Helplessness Scale. While the fit indices of the original model did not reach the expected level, the revisions made after the removal of some items with similar content significantly improved the overall fit of the model. The fit indices of the revised model met the required criteria, and the measurement reliability of the scale was strengthened. The results suggest that hopelessness and helplessness are distinct but complementary dimensions. These findings are consistent with theoretical approaches that view helplessness as a cognitive disposition associated with a decrease in coping capacity and hopelessness as a cognitive disposition associated with pessimistic future expectations (Lester, 2001; Gençöz et al., 2006). These CFA results also provide evidence that the two subscales (Hopelessness and Helplessness) are empirically distinct, supporting the scale's discriminant validity.

The relationship between the Hopelessness and Helplessness Scale (HHS) and the Hopelessness, Helplessness, and Haplessness Scale provides evidence for the convergent validity of the HHS. The measure developed by Duru and Balkıs (2024) appears to represent the constructs of hopelessness and helplessness well and aligns closely with established instruments. Also, associations between HHS scores and symptoms of depression and anxiety support its criterion-related validity. These results are consistent with some previous findings (Hong et al., 2024; Gallagher et al., 2025; Waikar and Craske, 1997) that highlight the role of hopelessness and helplessness in the etiology of psychological distress. Overall, the results support the validity and usefulness of the HHS.

Reliability analyses of the Hopelessness and Helplessness Scale (HHS) were carried out using Cronbach's alpha (α) and McDonald's omega (ω). The results demonstrated high levels of internal consistency for both the hopelessness and helplessness subscales. These outcomes suggest that the scale reliably measures the intended constructs and are consistent with findings previously reported by Duru and Balkıs (2024).

Finally, measurement invariance analysis was performed to examine whether the HHS demonstrated measurement invariance across both gender and academic status. The results of the multi-group confirmatory factor analyses indicated that the HHS has the same structures for male and female participants, as well as between student and non-student groups. These findings suggest that the scale is free from systematic measurement bias and can therefore be used with confidence in comparative studies.

Multi-group confirmatory factor analysis findings indicated that the model met the configural, metric, scalar, and strict invariance criteria of gender and different population (students and community) groups. Such complete invariance will signify that the construct is functioning in an equivalent manner in these populations. In practice, what this means is that whatever differences in the observed means are probably based on true psychological differences and not measurement error. Moreover, the validity of the latent variable in its form and the consistency of factor loadings and residual variances also seem to be equally strong in the investigated subgroups, which gives an adequate background to plausible cross-group comparisons.

It is necessary to note that strict invariance is hardly proven in research in the field of psychology. It, therefore, has a specific theoretical and methodological importance to its appearance in the current research. This finding implies that the instrument is psychometrically intact and is unbiased across demographic differences. In this regard, the differences in latent means, e.g., between men and women study participants or separate groups of students, can be construed as genuine psychological differences, but not as manifestations of different response styles or item-functioning bias.

Strict invariance in the final model, even after the minimum conditions that are necessary in order to conduct comparisons at the valid mean level, enhances the interpretive validity of the findings. Undertaking a successively more restrictive degree of invariance contributes to defining more substantial evidence of cross-group equivalence, as Chen (2008) has argued. Likewise, Putnick and Bornstein (2016) observe that achieving strict invariance, despite its methodological challenge, increases the credibility of comparative analyses, reducing group-specific measurement error and bias. In this connection, the current results form strong arguments in favor of the psychometric validity of the instrument in demographic settings.

Overall, the tool utilized in the present study maintains a consistent and similar measurement structure between gender and different populations. This has provided consistency that can create confidence that any difference in scores observed is due to substantive psychological characteristics and not due to methodological artifacts, which in turn enhances the fairness, as well as the validity of cross-group comparison.

Briefly, the findings of this study suggest that the HHS can be used as a valid and reliable measurement tool to measure the level of hopelessness and helplessness of emerging adults in Turkey. Evidence derived from structural, convergent, and criterion-related validity analyses, in addition to measurement invariance, highlights its suitability for use in both academic research and applied clinical settings. This contribution is particularly significant given the well-documented associations between hopelessness and helplessness and adverse psychological outcomes, including depression (Gallagher et al., 2025), anxiety (Yanmaz et al., 2025), and suicide risk (Douglas et al., 2025; Hutchinson et al., 2025). By providing a reliable and theoretically grounded means of assessment, the HHS offers researchers and clinicians an efficient tool for evaluating psychological risk factors and advancing understanding of these interrelated constructs.

Despite its contributions, there are a number of limitations that this study is subject to, which should be acknowledged. First, the data were gathered online from a volunteer sample that consisted mainly of students and non-student groups, which may limit the generalizability of the findings to other age groups and more diverse populations. Future research based on representative samples in different age, socioeconomic, and cultural environments would strengthen the external validity of the scale. Second, the study of criterion-related validity was limited to the areas of depression and anxiety. Although these are critical clinical outcomes, prior studies have also demonstrated associations between hopelessness and helplessness and a range of positive psychological constructs, including self-efficacy, resilience, life satisfaction, and social support (Brott & Veilleux, 2024; Doğruyol & Tayınmak, 2023; Panzarella et al., 2006; Shek & Li, 2016; Uçar et al., 2019). In future studies, the comprehensiveness of the HHS's criterion related validity analyses needs to be increased to include these variables, thus ensuring a more comprehensive assessment of the scale's criterion related validity. Another limitation is associated with the online data collection method. Online surveys have many advantages, including no need for an interviewer and saving on postage and printing expenses. They can be launched quickly, reducing the time delay between completion and data collection. However, two main factors can affect their reliability: incomplete coverage and self-selection. These problems lead to biased estimates and incorrect conclusions (Bethlehem, 2010). Inadequate coverage means that some sections of the target population could be missed. Additionally, because the participants are accessing the survey online of their own volition, the selection process is also not controlled by the researchers, making it necessary to be careful when

interpreting the results.

In conclusion, the Hopelessness and Helplessness Scale has been shown to be a psychometrically robust measure of two important psychological constructs. Evidence of structural validity, convergent validity, criterion-related validity, and measurement invariance supports the utility of the scale in both academic research and clinical practice. Due to its strong psychometric properties, the scale provides researchers with a reliable means of expanding theoretical knowledge and clinicians with a practical tool for assessing psychological risk factors. Given the known links between hopelessness, helplessness, and negative outcomes such as depression and anxiety, the HHS has a lot of potential both as a research tool and as an aid to applied psychological assessment.. .

Compliance with Ethical Standards

Disclosure of Potential Conflicts of Interest. The authors declare no conflicts of interest related to the research, authorship and/or publication of this article.

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Ethical Approval. 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. Ethical approval was obtained from the Institutional Review Board of Pamukkale University (10-16 meeting/decision dated 13/June/2025).

Informed Consent. Consent was obtained from all participants included in the study.

Data Sharing Statement. The data file for this study is available upon request.

Author Contributions. First author: Conceptualization, research design, supervision, interpretation, literature review, writing, critical review. Second author: Conceptualization, research design, data collection and processing, interpretation, literature review, writing, critical review. Third author: Research design, data collection and processing, critical review, writing.

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