



Assessment of the Validity and Reliability of the Persian Version of the Breakup Distress Scale and Its Relationship with Resilience Among College Students

Negar Mousivand ¹, Masoume Pourmohamadrez-Tajrishi ^{2,*}, Jahangir Mohammadi Bytamar ³

¹ Department of Clinical Psychology, Faculty of Behavioral Sciences and Mental Health, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

² Department of Psychology and Education of Exceptional Children, Faculty of Behavioral Sciences and Mental Health, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

³ Department of Clinical Psychology, Faculty of Psychology and Educational Sciences, Shahid Beheshti University, Tehran, Iran

*Corresponding Author: Department of Psychology and Education of Exceptional Children, Faculty of Behavioral Sciences and Mental Health, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran. Email: mpmrtajrishi@gmail.com

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Abstract

Background: This research investigates the validity and reliability of the Persian adaptation of the Breakup Distress Scale (BDS) while exploring its association with resilience in Iranian students.

Objectives: The primary aim is to assess the psychometric properties of the Persian BDS and analyze the relationship between resilience and breakup distress among single students, ultimately contributing to the development of effective interventions for managing emotional distress following breakups.

Methods: Utilizing a cross-sectional survey design, this study involved a sample of 350 single students (131 males and 219 females) aged 18 to 30, each of whom had experienced a romantic breakup at least six months prior. Participants completed the Persian version of the BDS alongside the Connor-Davidson Resilience Scale (CD-RISC). Psychometric analyses included confirmatory factor analysis (CFA) and evaluations of internal consistency. The data were analyzed using AMOS and SPSS version 23.

Results: The initial CFA revealed inadequate model fit; however, subsequent adjustments, including item removal and covariance modifications, resulted in a final model with acceptable fit indices (RMSEA = 0.075, IFI = 0.91, CFI = 0.91, $\frac{\chi^2}{df} = 2.97$). Both the original and revised versions of the BDS reflected robust internal consistency, as indicated by Cronbach's alpha coefficients ranging from 0.79 to 0.86. Moreover, significant negative correlations existed between resilience and breakup-related distress ($\beta = -0.36$), with emotional control identified as the most significant predictor of distress ($P < 0.001$).

Conclusions: The Persian version of the BDS is a reliable and valid measure of breakup distress, showing a negative correlation with resilience. However, important limitations warrant caution in interpreting the findings: Reliance on self-report data, lack of clinical evaluation, no focus on traumatic separations for validating low-loading item 11, absence of a determined cutoff point, and lack of inter-rater agreement coefficients. Additionally, the convenience sampling method may introduce bias, and the study did not examine the interaction between resilience and coping strategies. Addressing these limitations in future research is crucial for enhancing the robustness and applicability of the BDS in understanding breakup distress and resilience.

Keywords: Psychological Distress, Resilience, Reliability, Validity

1. Background

In early adulthood, particularly between the ages of 18 and 25, individuals often explore various romantic relationships as they seek their ideal partner (1). The end of these relationships, whether due to separation or divorce, can lead to significant emotional distress, including feelings of sadness, anxiety, and grief that may persist over time (2). While the causes of breakups are complex, common contributing factors such as

conflicting goals, lack of emotional intimacy (3), and personal development challenges are often associated with heightened emotional responses (4).

Experiencing distress following a breakup can be alleviated through adaptive coping strategies, with resilience serving as a key protective factor in this process (5). Resilience not only buffers against emotional harm but also fosters personal growth and recovery (6). Despite the importance of these constructs, existing assessment tools frequently lack cultural

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sensitivity when applied to diverse populations, such as Iranians, highlighting the necessity for culturally adapted measures.

The emotional aftermath of a breakup often involves negative feelings such as anger, loneliness, and anxiety (7), which may lead individuals to adopt unhealthy coping mechanisms like overeating, reduced physical activity, or substance use. To mitigate these adverse effects, cognitive reframing — adjusting one's perspective — has been shown to improve coping and resilience during such challenging times (8).

For students, breakup distress can resemble complicated grief, characterized by intense sorrow following the loss of a romantic partner. Research indicates that sleep disturbances, such as insomnia, are more common among those experiencing such grief, often tied to intrusive thoughts about the loss. Additionally, breakup-related distress is frequently linked to negative self-perceptions and tendencies toward self-blame (4). The strength and duration of emotional distress are often predicted by factors such as the intimacy and length of the relationships, where stronger emotional bonds tend to hinder recovery (7).

Despite the extensive challenges associated with breakup distress, research exploring its root causes remains limited. Longitudinal studies suggest that disparities in engagement and investment within relationships — such as emotional dependency or commitment — contribute to the intensity of post-breakup distress, sometimes leading to disengagement or emotional withdrawal (9). The loss of vital relationship features, especially in adolescent relationships involving emerging sexual needs and a desire for intimacy, further exacerbates distress (10). As individuals mature, there is typically a shift from dependency on romantic bonds towards seeking deeper emotional connections, which complicates the emotional aftermath of a breakup (1). The emotional and physical health repercussions of breakup distress are profound and well-documented (11, 12).

While tools such as the Beck Depression Inventory (BDI) and the Perceived Stress Scale (PSS) are widely used, their ability to accurately capture the complex, culturally specific emotional reactions associated with breakup experiences is limited (13). This underscores the urgent need to develop and validate assessment instruments that are culturally relevant for Iranian populations. Current assessment tools for breakup distress possess limitations, particularly in their cultural applicability to Iranian populations. This necessitates a comprehensive psychometric study aimed at evaluating existing measures, such as the

Breakup Distress Scale (BDS), alongside the exploration of resilience as a critical psychological construct. The BDI, designed to measure depression severity, is often linked to breakup distress but may not capture the multifaceted emotional responses unique to such experiences, particularly in different cultural contexts. Additionally, tools such as the PSS and the Relationship Assessment Scale (RAS) provide insights into stress levels and relationship quality, respectively, yet may overlook specific cultural influences on breakup distress. The Coping Strategies Inventory (CSI) and the Attachment Style Questionnaire (ASQ) are useful in understanding coping mechanisms and emotional responses, but their effectiveness may be diminished if not culturally tailored. Finally, the Quality-of-Life Scale (QoL) evaluates overall well-being but may lack the specificity needed to address breakup-related emotional distress comprehensively.

Given the unique socio-cultural landscape of Iran, existing tools such as the Persian version of the Female Sexual Distress Scale-Revised (FSDS-R) for sexual distress, the Disaster Resilience Measuring Tool (DRMT-C19) for disaster resilience, and the Peritraumatic Distress Inventory (PDI) for acute distress are valuable but require adaptation for breakup scenarios. There remains a significant gap in the availability of reliable Persian-language instruments specifically designed to assess breakup distress, thereby reinforcing the necessity of developing culturally sensitive measures that include the evaluation of resilience.

Resilience is defined as the capacity to adapt positively to adverse situations. It is central to understanding how individuals cope with breakup-related distress. Evidence indicates that higher resilience correlates positively with overall well-being and social support, which can serve as vital resources during emotional upheaval (14). Factors such as commitment and social support have been shown to alleviate distress, whereas prolonged grief often results from difficulties with attachment and positive memory recall (6, 15). Recognizing these facets emphasizes the importance of distinguishing emotional reactions from deeper psychological constructs like resilience.

Considering the unaccounted variance in breakup distress identified in student populations — stemming from depression, betrayal, and intimacy levels — there is a pressing need for further investigation and development of assessment tools (7) tailored to the Iranian context. This psychometric study aims to fill this gap by emphasizing the importance of resilience in coping with breakup distress. By focusing on resilience, the study seeks to develop instruments that not only

assess distress but also capture relevant personality traits and protective factors. An enhanced understanding of resilience is anticipated to facilitate improved coping strategies and promote emotional recovery, ultimately aiding individuals in navigating the complexities of breakup distress more effectively. In summary, addressing the limitations of existing tools and incorporating the concept of resilience provides a comprehensive framework for understanding and assessing breakup distress in a culturally sensitive manner. This approach could significantly contribute to the emotional well-being of individuals experiencing relationship transitions in the context of Iran.

2. Objectives

This research aims to evaluate the validity and reliability of the Persian version of the BDS and to compare resilience levels among students with high versus low breakup distress scores. Understanding these dynamics is essential for developing interventions that enhance resilience and support individuals coping with breakup distress.

3. Methods

The current study investigates the validity and reliability of the BDS, classified as applied research and employing a psychometric methodology. Utilizing a field study design for data collection, it is categorized as a survey study. The BDS was administered to 350 participants (mean age: 24.96 ± 3.41 years), all of whom had experienced breakup distress in the past six months. Inclusion criteria were ages 18 - 30, previous emotional relationships lasting at least six months, and no medical or psychological issues affecting results. Exclusion criteria included self-reported psychiatric disorders, prior emotional relationships shorter than six months, and recent psychoactive substance use. All participants remained in the study from start to finish with no exclusions.

To clarify the rationale and statistical justification for this sample size, we conducted a post-hoc power analysis using G*Power (version X) based on our primary analytical approach involving multiple regression with three predictors. The analysis revealed a high statistical power of 0.99997 (with an effect size f^2 of 0.063, $\alpha = 0.05$, and an estimated minimum sample size of 573). Although our actual sample was slightly below this number, the high power indicates sufficient sensitivity to detect meaningful effects, thus supporting the robustness of our findings. All 350 participants initially recruited met inclusion criteria, completed the

questionnaires, and remained in the study throughout without exclusions.

The second aim of the study was to examine the relationship between breakup distress [measured by the BDS) and resilience (measured by the Connor-Davidson Resilience Scale (CD-RISC)]. To operationalize this, we administered both instruments concurrently, collected data over the designated period, and performed correlational and regression analyses to explore associations. Consent forms, the BDS, the Resilience Scale (16), and demographic information were collected. The sample comprised 131 (37.4%) men and 219 (62.6%) women.

The BDS was developed by Field et al. (17) to evaluate breakup distress in students, drawing parallels to complicated grief. Adapted from the Inventory of Complicated Grief (ICG) (18), it replaces "deceased person" with "breakup distress," retaining 16 of the original 19 items. The scale employs a four-point Likert scale for responses and classifies individuals into low (scores 16 - 41) and high (scores 41 - 64) breakup distress categories. Field reported a Cronbach's alpha of 0.91 for the BDS, indicating high internal consistency, although the original ICG showed a Cronbach's alpha of 0.94 and a strong correlation with depression (17).

The CD-RISC measures resilience, drawing from various theoretical frameworks. The concept of resilience is rooted in Kobasa's work from 1979, emphasizing control, commitment, and viewing change as a challenge. Adaptations from Rutter's 1985 research focus on goal orientation, self-esteem, adaptability, social problem-solving, humor in stress, stress empowerment, accountability, emotional bonds, and prior successes. Items assessing stress tolerance are influenced by Lyons's 1991 strategies for positive coping after trauma, while Shackleton's insights on faith and altruism highlight the spiritual dimension of resilience. The CD-RISC comprises 25 items rated on a five-point Likert scale (zero-four), reflecting participant feelings over the past month. Total scores range from zero to 100, with higher scores indicating greater resilience. Resilience levels are categorized as low (25 - 41), moderate (41 - 83), and high (above 83). Factor analysis reveals five dimensions: Personal competence (8 items), tolerance of negative affect (7 items), positive acceptance of change (5 items), control (3 items), and spiritual influences (2 items). The scale exhibits strong internal consistency (Cronbach's alpha = 0.89) and test-retest reliability (0.87) (16). The Persian version demonstrated validity through factor analysis, with item correlation coefficients ranging from 0.41 to 0.64, and a reliability coefficient of 0.93 (19).

3.1. Research Procedure

In accordance with the Ethics Committee approval from the Deputy of Research and Technology, University of Social Welfare and Rehabilitation Sciences in Iran, this study aimed to evaluate the validity and reliability of the BDS through several phases.

In the initial phase of the study, the primary goal was to evaluate the validity and reliability of the Persian version of the BDS. To accomplish this, we commenced by selecting an established, validated questionnaire and securing formal permission from the original developer for translation. The translation process adhered to rigorous methodological standards, involving several steps: Initial forward translation and revisions by a team of four professionals, including a Ph.D. holder and a certified translator; synthesis of the translations followed by back-translation into English by a specialized translator to ensure fidelity to the original instrument; and a careful comparison of the back-translated version with the original questionnaire to finalize the Persian adaptation.

To ensure cultural relevance, we engaged cultural experts and conducted focus groups with potential respondents for feedback and adaptation. A pilot study was subsequently conducted to assess the clarity, comprehensibility, and emotional resonance of the translated items, leading to final adjustments. Psychometric testing was then performed to assess the scale's validity and reliability within the Iranian context, ensuring that it accurately measures breakup distress culturally and linguistically.

The second phase aimed to explore the relationship between breakup distress and resilience among students who met predefined inclusion criteria. Participants provided informed consent electronically and completed both the Persian version of the BDS alongside the CD-RISC simultaneously via an online survey platform (Porsline) over three months (July to August 2023). The BDS was used to quantify participants' emotional reactions following a recent breakup, while the CD-RISC provided a measure of resilience. The survey links were distributed through social media channels targeting the student population, facilitating broad and accessible participation. Resilience scores from the CD-RISC were interpreted such that higher scores indicated greater resilience. To analyze the data, we employed correlation and multiple regression analyses to determine whether resilience predicted levels of breakup distress, while controlling for demographic variables such as age and gender. This approach enabled

us to examine the protective role of resilience in mitigating breakup-related emotional distress.

3.2. Statistical Analysis

The dataset was analyzed using both descriptive and inferential statistics. Descriptive statistics, including means and standard deviations, summarized the sample characteristics. For validity and reliability assessment of the scales, confirmatory factor analysis (CFA) was performed, along with calculating Cronbach's alpha and split-half reliability coefficients. To explore the relationships between variables, Pearson correlation analyses were conducted. To evaluate resilience as a predictor of breakup distress, we applied multiple linear regression, with breakup distress as the outcome variable and resilience as the primary predictor. This analysis also controlled for demographic factors such as age and gender to isolate the effect of resilience. All statistical procedures were performed using SPSS version 23 and AMOS.

4. Results

To evaluate the validity of the BDS, we conducted CFA based on its original model. Initial findings revealed a poor fit, prompting modifications. Item 11 ("I go out of my way to avoid reminders of the person"), with a low factor loading (Estimate = 0.21), was removed. Additionally, covariance errors were permitted between several item pairs, leading to significant improvements in the model fit indices. The final model demonstrated acceptable fit, as detailed in [Tables 1, 2](#), and [Figure 1](#).

To evaluate the reliability of the BDS, we employed internal consistency methods, including Cronbach's alpha and split-half reliability. The Cronbach's alpha coefficients were 0.883 for the original 16-item scale and 0.891 for the revised 15-item version. Split-half reliability coefficients for the original version were 0.812 (first half), 0.787 (second half), and 0.856 (overall). For the revised version, the coefficients were 0.812 (first half), 0.821 (second half), and 0.851 (overall). These results indicate adequate reliability for research use ([Table 3](#)).

In this study, participants included 62.6% male and 37.4% female students, with the majority (46.9%) being firstborns and 45.4% holding a bachelor's degree. Notably, 34% reported experiencing a separation lasting two years or more, and 66.6% had deep relationships prior to the separation, while 30.6% reported emotional relationships lasting less than six months. The mean breakup distress score was 31.34 ± 9.21 , with 81.7% of participants scoring high (41 - 64) and 18.3% scoring low (16 - 41). Women exhibited higher frequencies in both

Table 1. Results of the Goodness-of-Fit Indices for the Measurement Models of the Breakup Distress Scale

Index	$\frac{\chi^2}{df}$	GFI	CFI	IFI	TLI	RMSEA
Proposed criteria	≥ 3	≥ 0.9	≥ 0.9	≥ 0.9	≥ 0.9	≥ 0.08
Values for the original measurement model of the Breakup Distress Scale	4.72	0.85	0.81	0.81	0.76	0.105
Values for the revised measurement model of the Breakup Distress Scale	2.97	0.91	0.91	0.91	0.89	0.075

Table 2. The Results of Factor Analysis for the Breakup Distress Scale (N = 350)

Item	Sentence	Factor Loading	Score (M \pm SD)
1	I am so preoccupied with the person that I believe it is difficult for me to perform routine tasks.	0.58	1.78 \pm 0.83
2	The person's memories irritate me.	0.50	1.89 \pm 0.85
3	I believe that I am unable to accept that I have gone through an emotional breakdown.	0.55	1.78 \pm 0.98
4	I believe I am drawn to places associated with the person.	0.58	1.90 \pm 0.94
5	I am unable to control my rage as a result of my emotional breakdown.	0.57	1.78 \pm 0.83
6	I think what has happened to me seems impossible to believe.	0.65	1.83 \pm 0.91
7	I believe I am perplexed and astonished by what has happened to me.	0.68	1.99 \pm 0.94
8	I find it difficult to trust people now that I have had an emotional breakdown.	0.44	2.31 \pm 1.03
9	I believe I am unable to care for people or that I am disappointed in caring for them since I experienced an emotional breakdown.	0.55	2.05 \pm 1.00
10	I have felt pain since I went through an emotional breakdown.	0.61	2.32 \pm 0.96
11	I try to stay away from things that remind me of the person.	0.21	2.18 \pm 1.14
12	I feel as though my life is absurd without the person in my life.	0.53	1.53 \pm 0.75
13	I am sad because I had an emotional breakdown.	0.74	2.10 \pm 0.95
14	I am envious of people who have not had an emotional breakdown.	0.51	1.86 \pm 1.01
15	I feel incredibly lonely since I experienced an emotional breakdown.	0.66	2.05 \pm 1.05
16	I feel I want to burst into tears when I think about the person.	0.65	2.00 \pm 1.03

Abbreviations: M, mean; SD, standard deviation.

high (59.4%) and low (63.3%) score groups compared to men (40.6% and 36.7%, respectively). Firstborns represented the highest frequency in both score groups. Educational attainment varied, with associate degrees (10.9%) and doctoral degrees (50%) among high scorers, while bachelor's degrees (44.4%) and doctoral degrees (40.6%) were most common in the low score group. The longest duration since breakup distress for high scorers was predominantly within 6 months (34.4%). Significant differences between high and low score groups were observed concerning birth order and time since separation ($P < 0.01$), with lower scores among later-born students and those separated for over one year. Independent *t*-tests revealed no significant gender differences in breakup distress scores, though resilience differed significantly between high and low scorers across most components ($P < 0.01$) (Table 4).

Analysis of variance revealed a significant difference in resilience based on the duration since separation ($P = 0.026$). Follow-up LSD tests indicated that students

separated for 12 to 24 months exhibited greater resilience than those separated for 6 to 12 months and those separated for over 24 months ($P < 0.05$). No significant differences in resilience were found across other demographic variables ($P > 0.01$). However, comparisons by gender showed significant differences in two resilience components – personal competence and tolerance of negative affect ($P < 0.05$, Table 5).

Pearson correlation analysis revealed a significant negative relationship between overall resilience scores, including its components (personal competence, tolerance of negative affect, positive acceptance of change, and control), and breakup distress ($P < 0.01$). The strongest correlations were noted between breakup distress and the overall resilience score, particularly regarding the control component. Among male students, significant negative correlations were found across all resilience components ($P < 0.01$), with the strongest link to positive acceptance of change. In contrast, female students exhibited a more intense

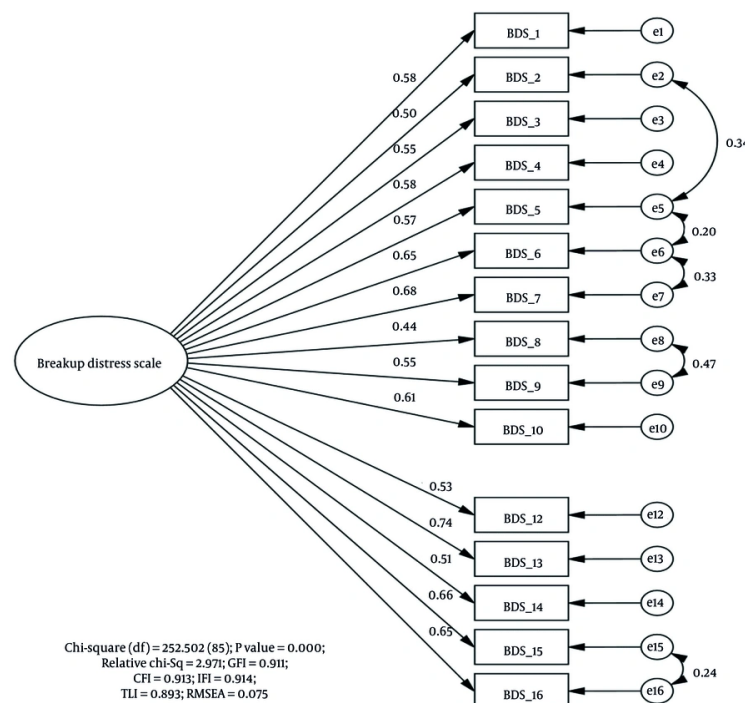


Figure 1. Final model of confirmatory factor analysis (CFA) for the Breakup Distress Scale (BDS)

Table 3. Mean, Standard Deviation, and Internal Consistency Results for the Breakup Distress Scale

Breakup Distress Scale	Split-Half Values	N	Cronbach's Alpha	M ± SD
Original version (16-item)		350	0.883	31.34 ± 9.21
First half	0.812			
Second half	0.787			
Full scale	0.856			
Revised version (15-item)		350	0.891	29.16 ± 8.89
First half	0.812			
Second half	0.821			
Full scale	0.851			

Abbreviations: N, number; M, mean; SD, standard deviation.

negative relationship with overall resilience and its components ($P < 0.001$), highlighting control as the most correlated component with breakup distress. No significant relationship was observed between breakup distress and spiritual influences for either gender ($P > 0.05$, Table 6).

To predict breakup distress based on the duration since separation, resilience, and its components, stepwise regression analysis was conducted, resulting in

three significant models. The components entered in order of significance were control, time since separation, and positive acceptance of change, while other variables were excluded due to their lack of predictive power (Table 7).

In the first model, the control component emerged as the strongest predictor, explaining 13.4% of the variance in breakup distress ($P < 0.001$, $F = 53.84$). The standardized beta coefficient indicated that control

Table 4. Descriptive Indices of Participants with High (41 - 64) and Low (16 - 41) Score on the Breakup Distress Scale ^a

Variables	Low Score on BDS	High Score on BDS	χ^2/t	P-Value
Gender			$\chi^2 = 0.34$	0.559
Female	181 (63.3)	38 (59.4)		
Male	105 (26.7)	26 (40.6)		
Birth order			$\chi^2 = 9.93$	0.019
One child	4 (1.4)	4 (6.3)		
First child	134 (46.9)	30 (46.9)		
Middle child	77 (26.9)	22 (34.4)		
Last child	71 (24.8)	8 (12.5)		
Education years			$\chi^2 = 1.49$	0.687
College graduate	43 (15.0)	7 (10.9)		
Undergraduate	127 (44.4)	32 (50.0)		
Postgraduate	116 (40.6)	25 (29.1)		
Duration since separation (mo)			$\chi^2 = 8.90$	0.030
Lower than 6	66 (23.1)	22 (34.4)		
6 - 12	63 (22.0)	20 (31.3)		
12 - 24	52 (18.2)	8 (12.5)		
Higher than 24	105 (36.7)	14 (21.9)		
Intensity of relationship before separation (age)			$\chi^2 = 1.28$	0.317
Superficial	111 (38.8)	20 (31.3)		
Deep (closeness)	175 (61.2)	44 (68.8)		
Group				
Men (n = 131)	25.03 ± 3.08	25.63 ± 3.05		
Women (n = 219)	25.04 ± 3.63	24.02 ± 3.37		
Total	25.14 ± 3.07	24.86 ± 3.32	$t = 0.78$	0.435
Resilience CD-RISC				
ER	61.71 ± 11.89	52.94 ± 12.66	-	-
PC	20.54 ± 4.87	17.39 ± 5.34	$t = 4.59$	< 0.001
TN	16.09 ± 3.50	14.34 ± 4.44	$t = 2.95$	0.004
PA	13.21 ± 2.99	11.25 ± 2.98	$t = 4.73$	< 0.001
C	7.26 ± 2.27	5.53 ± 2.39	$t = 5.46$	< 0.001
SI	4.61 ± 2.23	4.42 ± 2.01	$t = 0.62$	0.532

Abbreviations: BDS, Breakup Distress Scale; CD-RISC, Connor-Davidson Resilience Scale; ER, entire resilience score; PC, personal competence; TN, tolerance of negative affect; PA, positive acceptance of change; C, control; SI, spiritual influences.

^a Values are expressed as No. (%) or mean ± SD.

negatively predicts breakup distress ($\beta = -0.37$). The second model, which included both control and time since separation, explained 17.3% of the variance ($P < 0.001$, $F = 36.35$), with standardized beta coefficients of $\beta = -0.36$ for control and $\beta = -0.198$ for duration since separation. In the third model, adding the acceptance component resulted in an explanation of 18.9% of the variance ($P < 0.001$, $F = 26.81$). The standardized beta coefficients for this model were $\beta = -0.287$ for control, $\beta = -0.186$ for duration since separation, and $\beta = -0.145$ for acceptance, all significantly predicting breakup distress ($P < 0.05$).

5. Discussion

This study involved 350 Iranian university students aged 18 to 30 and aimed to achieve two primary objectives: First, to translate and adapt the 16-item BDS into Persian, assessing its psychometric properties (validity and reliability) among students who have experienced breakup distress within the past six months; second, to examine the relationship between breakup distress and resilience, considering demographic factors such as gender, age, birth order, education level, duration since separation, and the intensity of prior relationships.

Table 5. Comparison of the Mean and Standard Deviation of Resilience Levels in Students Based on Demographic Variables ^a

Variables	N	Values	t-Test or ANOVA	P-Value
Gender				
Male	131	61.59 ± 13.13	1.72	0.086
Female	219	59.22 ± 12.04		
Age (y)				
18 - 24	119	119 ± 13.01	0.01	0.925
24 - 30	231	60.06 ± 12.24		
Birth order				
Only child	8	60.00 ± 17.14	0.09	0.963
First born (oldest)	164	59.83 ± 12.34		
Middle born	99	60.05 ± 12.41		
Last born (youngest)	79	60.05 ± 12.62		
Education level				
College graduate	50	57.98 ± 13.83	1.27	0.285
Undergraduate	459	59.50 ± 12.67		
Postgraduate	93	61.31 ± 11.76		
PhD degree	48	62.00 ± 11.67		
Duration since separation (mo)				
Lower than 6	88	59.82 ± 13.03	3.13	0.026
6 - 12	83	57.18 ± 8.42		
12 - 24	60	63.48 ± 12.97		
Higher than 24	119	60.65 ± 13.80		
Intensity of relationship before separation (age)				
Shallow	131	58.93 ± 12.52	-1.36	0.174
Deep	219	60.81 ± 12.45		
Duration of previous emotional relationship (mo)				
Lower than 6	107	58.94 ± 12.12	0.61	0.610
6 - 12	83	60.16 ± 12.25		
12 - 24	67	61.52 ± 12.27		
Higher than 24	93	60.38 ± 13.33		
Variables	Male (N = 131)	Female (N = 219)	t -Test	P-Value
Resilience				
PC	20.70 ± 5.19	19.52 ± 5.01	2.11 ^b	0.036
TN	16.52 ± 3.91	15.33 ± 3.58	2.91 ^c	0.004
PA	12.65 ± 3.37	12.97 ± 2.90	-0.90	0.367
C	7.21 ± 2.49	6.78 ± 2.31	1.65	0.100
SI	4.50 ± 2.25	4.62 ± 2.17	-0.48	0.633
ER	61.59 ± 13.13	59.22 ± 12.04	1.72	0.086

Abbreviations: ANOVA, analysis of variance; PC, personal competence; TN, tolerance of negative affect; PA, positive acceptance of change; C, control; SI, spiritual influences; ER, entire resilience score.

^a Values are expressed as mean ± SD.

^b P < 0.05

^c P < 0.01

Initial findings suggest that the Persian Breakup Distress Scale (P-BDS) exhibits adequate construct and content validity for assessing the experiences of separation among students. However, to strengthen these findings, further investigation into its cross-cultural validity and potential biases associated with

self-reported data is crucial. The CFA indicated that the original model of the P-BDS did not fit well, leading to necessary modifications. Specifically, Item 11 was eliminated due to a low factor loading of 0.21, which improved the model's fit but raises questions about its conceptual relevance. This suggests that the item might

Table 6. Correlation Matrix Determining the Relationship Between Breakup Distress and Resilience in Students by Gender

Variables	Breakup Distress					
	Male (N = 131)		Female (N = 219)		Overall Sample (N = 350)	
	R	P-Value	R	P-Value	R	P-Value
Resilience						
PC	-0.23 ^a	0.009	-0.34 ^b	< 0.001	-0.30 ^b	< 0.001
TN	-0.25 ^a	0.004	-0.28 ^b	< 0.001	-0.27 ^b	< 0.001
PA	-0.28 ^b	< 0.001	-0.32 ^b	< 0.001	-0.30 ^b	< 0.001
C	-0.24 ^a	0.006	-0.45 ^b	< 0.001	-0.37 ^b	< 0.001
SI	-0.01	0.966	-0.13	0.059	0.08	0.144
ER	-0.28 ^b	0.001	-0.41 ^b	< 0.001	-0.36 ^b	< 0.001

Abbreviations: PC, personal competence; TN, tolerance of negative affect; PA, positive acceptance of change; C, control; SI, spiritual influences; ER, entire resilience score

^a P < 0.05

^b P < 0.01

reflect cultural differences in how breakup distress is conceptualized and expressed. Additionally, covariance errors between five item pairs were addressed, resulting in a revised model that demonstrated acceptable fit.

Reliability assessments indicated high internal consistency for both the original 16-item version (Cronbach's alpha = 0.88) and the modified 15-item version (Cronbach's alpha = 0.89), consistent with earlier findings that reported a Cronbach's alpha of 0.91 for the original scale (3). Moreover, scores on the BDS were positively correlated with feelings of rejection, betrayal, intrusive thoughts, sleep disturbances, anxiety, and depression (20). This supports the notion that the Persian version effectively captures the construct of breakup distress, in line with other cultural adaptations of the scale.

Recent literature highlights the significance of age demographics in studies of breakup distress, arguing that it is a culturally relevant phenomenon linked to the normative development of intimacy in young adults rather than merely reflecting relationship failure (21). The BDS is based on the complicated Grief Inventory (18) and illustrates how the end of romantic relationships can trigger elevated physical and emotional distress, marked by feelings of rejection and a desire for intimacy (12).

The P-BDS's reliability among Iranian students, assessed through the split-half method, revealed coefficients of $R = 0.81$ for the first half, $R = 0.82$ for the second half, and $R = 0.85$ overall. These findings closely mirror those from the original version and its Spanish adaptation, which also report high internal consistency. Additionally, structural equation modeling showed that individuals who initiate breakups tend to experience

lower distress levels than those who are on the receiving end (3).

Further analysis indicated that students' breakup distress scores varied according to birth order and the time since the breakup. Specifically, students with lower birth order rankings reported reduced breakup distress, aligning with research suggesting that strong sibling attachments can alleviate anxiety and distress (22, 23). Healthy sibling relationships appear to enhance self-esteem and positively impact psychosocial development, helping individuals cope better during stressful situations. A supportive family environment is vital for mitigating breakup distress and facilitating adjustment post-separation (24).

The study also found that as the time since a breakup increases, students report lower distress levels, which supports existing research identifying time as a key predictor of emotional recovery (7). Notably, the most severe mental health issues are typically associated with relationships lasting less than one year (25). Individuals often employ cognitive and behavioral coping strategies to manage separation stress, with adaptive strategies — such as self-help practices and building new relationships — correlating negatively with symptoms of depression and anxiety. Over time, individuals become more skilled at using these coping mechanisms after experiencing a breakup.

Interestingly, no significant differences in breakup distress scores were observed between male and female students, contrasting with prior research indicating that females generally report higher distress levels (17). This discrepancy may arise from the study's specific sample composition, as women typically experience more intense feelings of depression and hopelessness

Table 7. Stepwise Regression Analysis Based on Scores from the Breakup Distress Scale

Step	Model Summary			ANOVA		Standardized Coefficients		
	R	R Square	R ²	F for Change	P-Value	Beta	t	P-Value
1								
Control component	0.366	0.134	0.131	53.84	< 0.001	-0.366	7.34	< 0.001
2	0.416	0.173	0.168	36.35	< 0.001			
Control component						-0.360	7.37	< 0.001
Duration since separation						-0.189	-4.06	< 0.001
3	0.434	0.189	0.182	26.81	< 0.001			
Control component						-0.287	-5.12	< 0.001
Duration since separation						-0.186	3.83	< 0.001
Acceptance component						-0.145	-2.56	0.011

post-breakup. Overall, this highlights the importance of considering the sample's characteristics when interpreting gender differences in breakup distress.

The analysis also identified significant differences in resilience and its components – such as personal competence, tolerance of negative affect, positive acceptance of change, and control – between students with high and low breakup distress scores, except for the spiritual aspect. A notable negative correlation was found between breakup distress and overall resilience, particularly regarding control, a trend that was especially evident among female students. Resilience is increasingly recognized as a crucial trait that helps young adults navigate challenges in romantic relationships (26-28). Family resilience theory posits that the quality of interpersonal relationships significantly affects one's capacity to cope with crises like breakups (27).

This research indicates that individuals grappling with breakup distress can benefit from enhanced resilience, which boosts their coping abilities. Resilience facilitates personal competence during pivotal events, such as relational endings, leading to better emotional acceptance. Consequently, resilience serves as a psychological buffer, helping to mitigate the adverse effects of breakup distress and allowing for smoother adjustments following relationship terminations (28). Increased resilience correlates with higher self-esteem and more adaptive coping strategies, enabling individuals to navigate the challenges associated with breakups effectively.

Furthermore, the notion of sudden loss closely aligns with levels of depression, as supported by existing grief literature. While prior studies indicate that women typically experience higher depression following breakups (29), this study found no significant gender differences in depression scores. Additionally, men did

not demonstrate a correlation between the loss of positive affect and the severity of depressive symptoms, suggesting they may underreport their emotional struggles during stressful situations. Longitudinal research is essential to further explore the unique coping mechanisms and vulnerabilities tied to depressive symptoms under stress (30).

The analysis revealed a connection between students' resilience levels and the time elapsed since their breakup, with those who had broken up within the last 12 to 24 months reporting higher resilience than those who had experienced a breakup recently or over two years prior, which aligns with earlier findings (31, 32). However, no significant resilience differences were discovered based on demographic factors such as gender, age, birth order, educational background, or relationship intensity. Notably, commitment to a past relationship negatively correlated with the willingness to engage in new relationships, while negative memories of former partners were associated with increased depression and distress (32).

A comparative analysis of resilience by gender showed that male and female students significantly differed only in personal competence and tolerance of negative affect, with males scoring higher in both areas, a finding consistent with Behl and Jain (32). Furthermore, three resilience components – control, commitment, and purpose – serve as indicators of "hardiness" (33). Individuals who perceived less control over breakup decisions experienced greater distress, suggesting that emphasizing social connections and pursuing new romantic relationships could aid recovery by decreasing post-breakup distress. Additionally, men often exhibited a more optimistic outlook on post-breakup challenges compared to women (32).

Lastly, the study assessed the combined effects of control, time since the breakup, and acceptance in

predicting breakup distress, explaining 18.9% of variance in distress levels, consistent with Rosenfeld's findings (26). Individuals in high-quality romantic relationships typically display greater resilience, derive meaning from their breakup experiences, and manage external stressors effectively. Conversely, seeking new romantic partnerships was negatively correlated with breakup distress. Higher commitment, intimacy, and longer relationship durations emerged as strong predictors of breakup distress. Resilience significantly shapes psychological outcomes after a breakup, with numerous studies affirming its positive impact on helping young adults navigate emotional distress (7). Resilience is also associated with cognitive styles and coping strategies, suggesting it fosters positive thinking and adaptive strategies among students dealing with recent breakups (31). Exploring resilience interventions more thoroughly could provide insights into effective methods for reducing breakup distress.

The concept of sudden loss is intricately linked to depression scores, aligning with existing literature on grief, particularly regarding unexpected losses and associated psychiatric challenges like clinical depression. Despite findings indicating that women often experience higher depression levels linked to breakup distress than men (29), this study found no significant gender differences in depression scores. Men exhibited no correlation between the loss of positive affect and depressive symptoms, while women reported more significant declines in positive affect. These results suggest that men may underreport their emotional difficulties during stressful periods, influencing perceived gender disparities in depression rates. The aftermath of breakups relates to both sudden loss and the loss of positive affect, emphasizing the necessity for longitudinal studies to explore coping mechanisms and vulnerabilities among individuals experiencing depressive symptoms during stress (30).

5.1. Conclusions

This study significantly contributes to the research literature by being the first to assess the validity and reliability of the Persian version of the BDS among Iranian students. The results indicate that the Persian translation exhibits suitable psychometric properties for individuals who have experienced breakup distress at least six months prior. Distinctions between high and low distress levels were associated with birth order, time since the breakup, and certain resilience components, such as personal competence and tolerance for negative affect. The study highlights a multidimensional approach to romantic separations, demonstrating that

the 15-item version of the scale is as reliable as the 16-item version and is recommended for screening emotional distress in this population. Future research should focus on reliability assessments, cross-cultural validity, and the relationship between emotional distress and adjustment post-breakup, emphasizing the need for longitudinal studies to explore these dynamics over time.

5.2. Limitations

This study has made valuable contributions, but it also presents several limitations. Participants were not assessed for psychological disorders through clinical interviews, and the reliance on self-reported data may impact the findings' validity. To enhance future research, it would be beneficial to include individuals who have experienced traumatic breakups to validate Item 11 of the BDS, which demonstrated low factor loading. Other limitations include the absence of established cutoff points for the BDS, lack of inter-rater agreement coefficients, and reliance on convenience sampling instead of random sampling. The findings may not be widely applicable due to the focus on a specific student population. This sampling method may not reflect the broader public's experiences, potentially limiting the study's relevance. Relying solely on self-reports introduces bias, highlighting the need for future studies to include more diverse samples. Exploring various age groups and backgrounds will help deepen the understanding of breakup distress and resilience, making the research more applicable across different populations.

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Footnotes

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