

Adaptation and Validation of the Essential Resilience Scale for Chinese College Students

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ABSTRACT

In the digital-intelligent era, college students are facing increasingly complex psychological pressures, interpersonal adaptation challenges, and risks of covert bullying. As an important protective psychological resource, psychological resilience therefore requires effective measurement tools for assessment. This study aimed to adapt and validate the Essential Resilience Scale (ERS) among Chinese college students, providing a reliable measurement tool for subsequent research on psychological resilience, covert bullying prevention, and dance/movement therapy interventions. The original ERS consists of 15 items across three dimensions: Physical Resilience, Emotional Resilience, and Social Resilience. To enhance its contextual relevance for college students, three items were slightly revised while retaining the original theoretical structure. A total of 561 college students from Shandong Province, China, participated in the study. Overall, 94.1% of the participants were female, 67.0% were aged 20–21 years, and 63.1% were second-year students. A two-phase research design was adopted. In the pilot study, 330 valid responses were collected and used for item analysis and exploratory factor analysis. In the formal study, 231 valid responses were collected and used for confirmatory factor analysis, convergent validity, discriminant validity, and reliability testing. The item analysis results showed that all items demonstrated satisfactory discriminatory power, with CR values ranging from 9.24 to 13.59 and corrected item-total correlations ranging from 0.506 to 0.632. Exploratory factor analysis using principal axis factoring with direct oblimin rotation supported a clear three-factor structure, accounting for 57.720% of the variance, with pattern coefficients ranging from .626 to .824. Confirmatory factor analysis further indicated that the three-factor model fitted the data well, $\chi^2(87) = 90.830$, $p = .368$, $\chi^2/df = 1.044$, CFI = .998, TLI = .998, and RMSEA = .014. The scale also demonstrated satisfactory convergent validity, discriminant validity, and internal consistency reliability. Overall, the adapted ERS showed good psychometric properties and can be considered a reliable and valid instrument for assessing psychological resilience among Chinese college students.

Keywords: Essential Resilience Scale; psychological resilience; college students; scale adaptation

INTRODUCTION

The university stage is an important period for individual psychological development and social adaptation, and it is also a stage in which mental health problems are relatively prominent. The arrival of the digital-intelligent era has profoundly changed the learning styles, interpersonal communication patterns, and psychological experiences of contemporary university students. While the widespread use of artificial intelligence, social media,

and other digital technologies has improved the convenience of learning and daily life, it has also exposed university students to more complex psychological pressures and social adaptation challenges (Yue, 2025). Against this background, campus bullying has shown new characteristics and forms. In addition to traditional overt bullying, covert bullying, as a more hidden and less easily detected form of aggressive behavior, has gradually become an important risk factor affecting the mental health of university students (Zhang et al., 2026). Covert bullying, also known as relational bullying or social exclusion, generally refers to psychological harm caused to others through non-violent means such as spreading rumors, social isolation, and malicious exclusion in interpersonal contexts. Compared with overt bullying, covert bullying is more difficult to identify and intervene in promptly due to its hidden nature, the difficulty of retaining evidence, and victims' difficulty in clearly expressing their experiences. As a result, it may have a continuous negative impact on victims' mental health (Ma & Cai, 2025).

In response to university students' mental health problems, especially the psychological distress that may result from covert bullying, it is important to explore effective psychological protective factors and intervention pathways. Psychological resilience refers to an individual's ability to adapt, recover, and grow when facing stress, adversity, trauma, or threats. It is an important psychological resource that protects individuals from the impact of negative life events and promotes mental health development. For individuals who experience covert bullying or social exclusion, a higher level of psychological resilience may help them maintain relatively stable emotional states, strengthen their ability to cope with stress, and promote psychological recovery and social adaptation. Therefore, psychological resilience is not only an important variable in research on university students' mental health, but also an important intervention target in mental health education and intervention practice in higher education institutions.

Dance/movement therapy (DMT), as an important branch of expressive arts therapy, has attracted increasing attention in the field of mental health promotion in recent years. DMT promotes mind-body integration, emotional regulation, and social functioning through body movement, dance improvisation, and body awareness practices (Mastnak & Mao, 2021). Existing studies have shown that dance therapy interventions can improve university students' interpersonal communication ability, self-disclosure, and emotional support ability, while also helping to reduce negative emotions and enhance positive emotional experiences (Magulandanm et al., 2019). From the perspective of cultural adaptation, Chinese ethnic dance therapy emphasizes cultural sensitivity and integrates traditional dance elements with mental health promotion, providing a new pathway for mind-body integration interventions within the local cultural context (Mao et al., 2025). Therefore, in subsequent DMT intervention research, accurately measuring changes in university students' psychological resilience becomes an important foundation for evaluating intervention effects and explaining the underlying mechanisms.

However, although the importance of psychological resilience has been widely recognized, existing measurement tools may still have certain limitations when applied to Chinese university students. On the one hand, some mature scales were mainly developed based on foreign cultural backgrounds and samples, and the wording of certain items may not fully align with the cultural experiences and daily language expressions of Chinese university students. On the other hand, some items lack specific situational anchoring, which may make it difficult for respondents to accurately relate the items to their real experiences, thereby affecting the authenticity and accuracy of measurement. In addition, the disciplinary system of dance therapy in China is still developing, and there remains considerable room for expansion in localized empirical research (Mastnak & Mao, 2021). Therefore, based on the theoretical framework of mature scales, it is of great significance to appropriately localize, revise, and validate a multidimensional resilience scale by considering the cultural characteristics, language habits, and life contexts of Chinese university students. This may help improve the applicability of the measurement tool and strengthen the scientific basis of subsequent intervention research.

Based on the above background, this study aims to appropriately revise and validate a mature multidimensional resilience scale in order to provide a scientifically reliable measurement tool for subsequent DMT intervention research. This study is an important component of the project “Research on Dance/Movement Therapy Prevention and Psychological Capital Cultivation for Covert Bullying among University Students in the Digital Era.” By revising and validating the multidimensional resilience scale, this study aims to construct a psychological resilience measurement tool suitable for Chinese university students and to lay a methodological foundation for subsequent DMT intervention and mechanism research.

Specifically, the objectives of this study are as follows: first, to adaptively revise certain items while maintaining the theoretical framework and core structure of the original scale, mainly by simplifying the language expression and anchoring the items in specific situations; second, to examine the item quality of the revised scale, including the discrimination of each item and other basic psychometric indicators; third, to systematically evaluate the reliability and validity of the scale using multiple statistical methods; and fourth, to use confirmatory factor analysis to examine the degree of fit between the theoretical model of the scale and the actual data.

METHODOLOGY

Sample Population

The target population of this study consisted of university students in Shandong Province, China, mainly higher vocational and junior college students. This population was selected because students at this stage are undergoing important psychological development and social adaptation. They may be more likely to experience interpersonal stress, social exclusion, and covert bullying. Therefore, this group is considered appropriate for revising and validating a multidimensional resilience scale in the context of university students’ mental health.

This study adopted a convenience sampling method. Data were collected through an online questionnaire platform. The questionnaire link was distributed with the assistance of course teachers and counsellors. All participants were informed of the purpose of the study and participated voluntarily.

The data collection was conducted in two stages. Two samples were used for the scale validation. The first stage was the pilot study, in which 330 responses were collected. The sample consisted of 330 students, including 9 males (2.7%) and 321 females (97.3%). Of these participants, 105 (31.8%) were aged 18–19 years, 223 (67.6%) were aged 20–21 years, and 2 (0.6%) were aged 22–23 years. Regarding year of study, 97 students (29.4%) were in their first year, 194 (58.8%) were in their second year, and 39 (11.8%) were in their third year. The second stage was the formal study, in which 231 responses were collected, including 24 males (10.4%) and 207 females (89.6%). Among them, 76 (32.9%) were aged 18–19 years and 155 (67.1%) were aged 20–21 years. In terms of year of study, 71 students (30.7%) were in their first year and 160 (69.3%) were in their second year.

Measures

Adaptation of the Essential Resilience Scale

The Essential Resilience Scale (ERS) was originally developed by Chen et al. (2015) based on a conceptual framework that includes three core capabilities: anticipation, flexibility, and bouncing back. These capabilities are reflected across three types of adverse or traumatic experiences, namely physical, emotional, and social experiences. The original scale demonstrated sound psychometric properties in a diverse Chinese adult sample aged 18 to 45 years ($\alpha = 0.94$; CFI = 0.98; RMSEA = 0.06). The ERS consists of 15 items across three subscales: Physical Resilience, Emotional Resilience, and Social Resilience, with five items in each subscale. All items are

rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale is available in both Chinese and English and can be used for research purposes without licensing fees.

Although the ERS has demonstrated satisfactory reliability and validity in general adult populations, its original items were mainly developed within workplace and daily life contexts. Therefore, some items may not fully reflect the experiences of college students. In particular, the academic environment emphasizes sustained cognitive engagement rather than physical labour, and the wording of some Chinese items may not fully align with the everyday language used by young adults. Accordingly, minor adaptations were made to enhance the contextual relevance and readability of the scale for Chinese college students.

The adaptation followed the principle of retaining the original theoretical structure while improving contextual appropriateness. Three items were revised. First, Item PR2, originally worded as “I can continuously work for a long time without feeling tired,” was modified in Chinese from “I can continuously work for a long time without feeling tired” to “I can continuously study for a long time without feeling tired,” because studying, rather than working, is the primary daily activity of students. Second, Item ER1 was originally worded in English as “I consider myself an emotionally ‘strong’ person,” and its original Chinese version described the respondent as “naturally a person with strong psychological resilience.” In the present study, the Chinese wording was revised to “naturally a person with strong psychological endurance,” because “psychological endurance” is a more familiar and easily understood expression among Chinese college students. Third, Item SR4 was originally expressed in Chinese as “even when I am wronged or framed, I believe that the truth will eventually come to light.” It was revised to “even when I am wronged or falsely accused, I believe that the truth will eventually come to light,” in order to make the wording more natural and easier to understand while preserving the original meaning. All other items remained unchanged to maintain the integrity of the original factor structure.

As a result, the adapted ERS consists of 15 items and retains the original three-dimensional structure: Physical Resilience, Emotional Resilience, and Social Resilience, with five items in each dimension. All items are rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating higher levels of resilience. The adapted scale was administered to participants in both the pilot study and the formal validation study.

Data Analysis Strategy

This study was conducted in two phases to complete the revision and psychometric evaluation of the adapted scale.

Phase 1 (Pilot Study): A pilot test was first administered, yielding a total of 330 valid questionnaires. This sample was used for item analysis, including corrected item-total correlation and the extreme-group method, and exploratory factor analysis (EFA) to preliminarily examine the dimensional structure of the scale and identify potentially inappropriate items.

Phase 2 (Formal Study): Based on the results of the pilot study, the scale was administered again, yielding 231 valid questionnaires. This sample was employed for confirmatory factor analysis (CFA) to validate the factor structure of the scale. Convergent validity was assessed by calculating average variance extracted (AVE), while composite reliability (CR) was computed to evaluate construct reliability. Discriminant validity was examined to test the distinctiveness among dimensions. Internal consistency reliability was evaluated by calculating Cronbach’s α coefficients.

RESULTS

Content Validity

Given that the Essential Resilience Scale (ERS) employed in the present study underwent contextual adaptation for the college student population, including the revision of three items, an evaluation of content validity was conducted to verify the appropriateness of the adapted scale. This assessment focused on whether the items adequately reflected the construct of multidimensional resilience in terms of relevance, clarity, and contextual appropriateness within the target population. Content validity was examined at both the item and scale levels by calculating the I-CVI and the S-CVI/Ave.

A total of four experts were invited to participate in the content validity evaluation of the scale. The expert panel consisted of two experts in psychology with experience in scale development and psychometric research, and two university faculty members who had long been engaged in research and practice related to college student mental health education. The selected experts demonstrated strong complementarity in terms of research backgrounds and practical experience. This diversity facilitated a comprehensive evaluation of the relevance and appropriateness of the scale items from multiple perspectives.

Experts were asked to rate the relevance of each item using a four-point Likert scale, where 1 = poor relevance, 2 = fair relevance, 3 = good relevance, and 4 = excellent relevance. Following the criteria proposed by Lynn (1986), when the number of experts is four, an I-CVI value of 0.75 or above, indicating that at least three experts rated the item as 3 or 4, was considered acceptable in this study. The S-CVI/Ave was computed by averaging the I-CVI values across all items, with values of 0.90 or above indicating satisfactory overall content validity (Polit & Beck, 2006).

The evaluation results indicated that the adapted ERS consisted of 15 items, all of which achieved I-CVI values no lower than 0.75. Notably, the three revised items—PR2 (“I can continuously study for a long time without feeling tired”), ER1 (“I consider myself a person with strong psychological endurance”), and SR4 (“Even when I am wronged or falsely accused, I believe that the truth will eventually come to light”)—demonstrated acceptable content validity, with I-CVI values ranging from 0.75 to 1.00. The computed S-CVI/Ave for the entire instrument was 0.92, surpassing the recommended benchmark. These results suggest that the adapted ERS demonstrated satisfactory content validity and was suitable for assessing multidimensional resilience among college students in the present study.

Item Analysis

Item analysis was conducted to evaluate the discriminatory power of each item and the associations between individual items and the total scale score. The analysis results demonstrated that all 15 items yielded significant differences between the high- and low-score groups ($p < .001$), with CR values ranging from 9.24 to 13.59, substantially exceeding the recommended threshold of 3. These findings indicate that each item effectively differentiates between individuals with high and low levels of resilience, confirming strong item discrimination across the scale.

In addition, item-total correlation analyses were conducted to further evaluate item quality. Corrected item-total correlation coefficients ranged from 0.506 to 0.632, all exceeding the commonly accepted minimum criterion of 0.30. These results suggest that each item was closely associated with the underlying construct of psychological resilience, with no item falling below the commonly accepted minimum criterion of 0.30.

Collectively, the item analysis results indicate that all 15 items of the adapted ERS possess satisfactory discriminative power and adequate associations with the overall scale. These findings provide empirical support for retaining all items and proceeding with subsequent examinations of structural validity and reliability.

Table 1 Item Analysis Results of the Adapted Essential Resilience Scale (ERS)

Item	Critical ratio Value	p	Corrected Item-Total Correlation
PR1	12.661	< .001	0.576
PR2	12.751	< .001	0.603
PR3	13.590	< .001	0.620
PR4	10.955	< .001	0.554
PR5	11.946	< .001	0.626
ER1	12.007	< .001	0.578
ER2	12.236	< .001	0.543
ER3	13.053	< .001	0.594
ER4	12.479	< .001	0.597
ER5	11.518	< .001	0.618
SR1	9.235	< .001	0.506
SR2	12.248	< .001	0.538
SR3	11.280	< .001	0.531
SR4	13.010	< .001	0.632
SR5	11.418	< .001	0.546

Note. CR = critical ratio

Exploratory Factor Analysis (EFA)

Exploratory factor analysis was conducted using the pilot study sample to examine the preliminary dimensional structure of the adapted Essential Resilience Scale (ERS). Prior to factor extraction, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were performed to evaluate the suitability of the data for factor analysis. The results showed that the KMO value was 0.914, indicating excellent sampling adequacy. Bartlett's test of sphericity was significant, $\chi^2(105) = 2448.102$, $p < .001$, suggesting that the correlation matrix was appropriate for factor analysis.

Table 2 KMO and Bartlett's Test of the Adapted Essential Resilience Scale (ERS)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.914
Bartlett's Test of Sphericity	Approx. Chi-Square	2448.102
	df	105
	Sig.	< .001

Note. KMO = Kaiser-Meyer-Olkin.

Exploratory factor analysis was conducted using principal axis factoring with direct oblimin rotation. Principal axis factoring was selected to extract the common latent factors underlying the items, while direct oblimin rotation was employed because the three dimensions of resilience were theoretically expected to be correlated.

Three factors were retained based on eigenvalues greater than 1, inspection of the scree plot, theoretical interpretability, and the original three-factor structure of the ERS. The initial eigenvalues of the first three factors were 6.251, 2.010, and 1.646, respectively, whereas the fourth eigenvalue decreased to .574. The extracted three-factor solution accounted for 57.720% of the variance. Specifically, Factors 1, 2, and 3 accounted for 38.884%, 10.646%, and 8.189% of the variance, respectively. The scree plot also showed a clear break after the third factor, supporting the retention of the three-factor solution.

Table 3 Total Variance Explained by Principal Axis Factoring

Factor	Initial Eigenvalue	Initial Variance (%)	Extraction Eigenvalue	Extraction Variance (%)	Cumulative Extraction Variance (%)
1	6.251	41.674	5.833	38.884	38.884
2	2.010	13.401	1.597	10.646	49.530
3	1.646	10.973	1.228	8.189	57.720

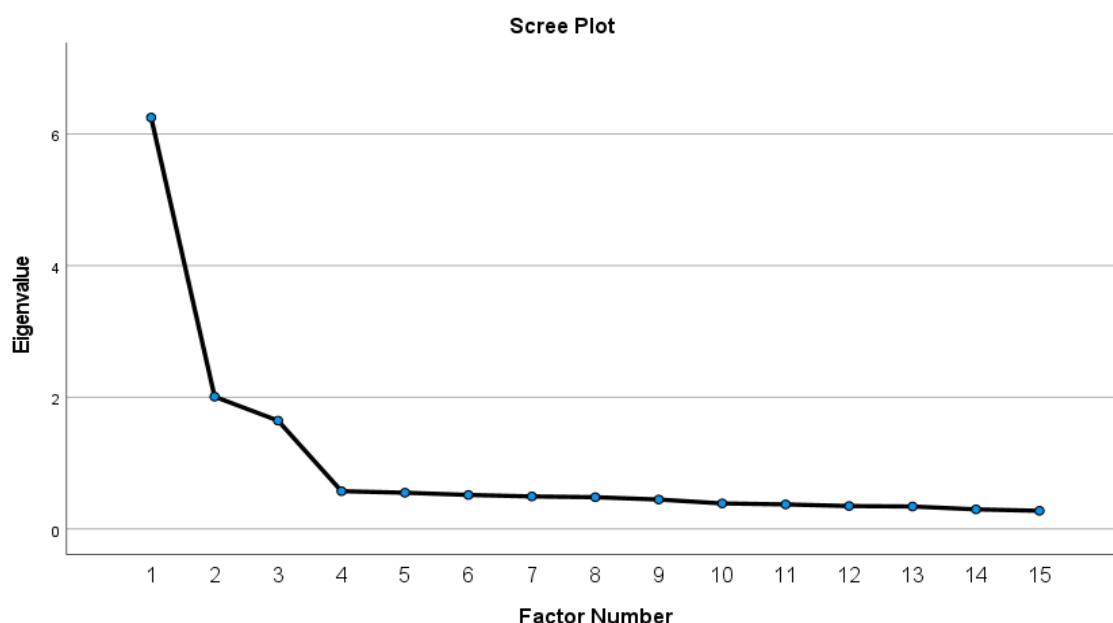


Figure 1 Scree Plot of the Adapted Essential Resilience Scale

After direct oblimin rotation, the pattern matrix demonstrated a clear simple structure consistent with the expected three-dimensional model of the ERS. The five Physical Resilience items loaded on Factor 1, with pattern coefficients ranging from .700 to .824. The five Social Resilience items loaded on Factor 2, with coefficients ranging from .626 to .822, while the five Emotional Resilience items loaded on Factor 3, with coefficients ranging from .632 to .815. All primary pattern coefficients exceeded .60, and no cross-loadings above .30 were observed. In addition, the extracted communalities ranged from .451 to .673, indicating that all items were adequately represented by the retained factors. Accordingly, no item was removed, and all 15 items were retained for the subsequent CFA.

Table 4 Pattern Matrix of the Adapted Essential Resilience Scale

	Component 1	Component 2	Component 3
PR1	0.772		
PR2	0.717		
PR3	0.700		

PR4	0.824		
PR5	0.818		
ER1			0.632
ER2			0.774
ER3			0.779
ER4			0.815
ER5			0.667
SR1		0.753	
SR2		0.732	
SR3		0.626	
SR4		0.779	
SR5		0.822	

Note. Extraction method = principal axis factoring; rotation method = direct oblimin with Kaiser normalization. Pattern coefficients below .30 were suppressed.

Overall, the exploratory factor analysis using principal axis factoring with direct oblimin rotation supported the proposed three-dimensional structure of the adapted ERS, corresponding to Physical Resilience, Emotional Resilience, and Social Resilience.

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was conducted using the formal study sample to further verify the three-dimensional structure of the adapted Essential Resilience Scale (ERS). The hypothesized model consisted of three latent factors, namely Physical Resilience, Emotional Resilience, and Social Resilience, with each factor measured by five observed items. The CFA model is presented in Figure 2.

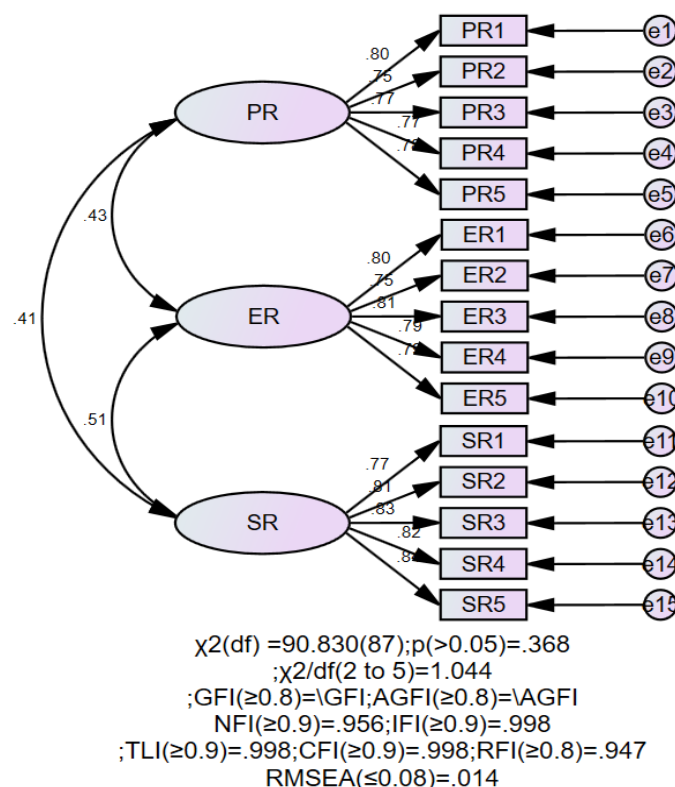


Figure 2 CFA Model of the Adapted Essential Resilience Scale

The results indicated that the three-factor model showed a good fit to the data. The chi-square value was not significant, $\chi^2(87) = 90.830$, $p = .368$, and the normed chi-square value was 1.044, which was below the recommended threshold of 3. Other fit indices also supported the adequacy of the model, including NFI = .956, IFI = .998, TLI = .998, CFI = .998, RFI = .947, and RMSEA = .014. These results suggest that the hypothesized three-factor model fitted the observed data well.

The standardized factor loadings of all items were satisfactory. The standardized loadings ranged from .749 to .836, exceeding the commonly recommended criterion of .50. Specifically, the factor loadings for the first dimension ranged from .753 to .799, those for the second dimension ranged from .749 to .805, and those for the third dimension ranged from .775 to .836. These results indicate that all observed items adequately represented their corresponding latent factors (See Table 5).

Table 5 Standardized Factor Loadings

Factor	Item	Standardized Loading
PR	PR 1	.799
PR	PR 2	.753
PR	PR 3	.768
PR	PR 4	.768
PR	PR 5	.785
ER	ER 1	.803
ER	ER 2	.749
ER	ER 3	.805
ER	ER 4	.788
ER	ER 5	.791
SR	SR 1	.775
SR	SR 2	.812
SR	SR 3	.829
SR	SR 4	.816
SR	SR 5	.836

Overall, the CFA results supported the three-dimensional structure of the adapted ERS and provided evidence for the structural validity of the scale among college students.

Convergent validity

Convergent validity was further examined using composite reliability (CR) and average variance extracted (AVE). The CR values for the three dimensions were .882, .891, and .907, all exceeding the recommended criterion of .70. The AVE values were .600, .621, and .662, respectively, all above the recommended threshold of .50. These findings indicate that the adapted ERS demonstrated satisfactory convergent validity and construct reliability.

Table 6 Convergent Validity of the Adapted Essential Resilience Scale

Dimension	CR	AVE	Result
PR	.882	.600	Acceptable
ER	.891	.621	Acceptable
SR	.907	.662	Acceptable

These results indicate that the observed items showed strong associations with their corresponding latent constructs. Therefore, the adapted ERS demonstrated satisfactory convergent validity.

Discriminant validity

Discriminant validity was assessed using the square root of AVE, maximum shared variance (MSV), and HTMT values. The square roots of AVE for the three dimensions were .775, .788, and .814, all of which were greater than the correlations among the dimensions. In addition, the MSV values were lower than the corresponding AVE values. The HTMT values ranged from .410 to .505, below the commonly recommended threshold of .85. These results indicate that the three dimensions of the adapted ERS were empirically distinct from one another.

Table 7 Discriminant Validity of the Adapted Essential Resilience Scale

Dimension	AVE	MSV	$\sqrt{\text{AVE}}$	PR	ER	SR
PR	.600	.184	.775	.775		
ER	.621	.256	.788	.429	.788	
SR	.662	.256	.814	.408	.506	.814

Note. AVE = average variance extracted; MSV = maximum shared variance.

Table 8 HTMT Values among the Three Dimensions

Dimension	PR	ER	SR
PR	—		
ER	.429	—	
SR	.410	.505	—

Reliability

Internal consistency reliability was assessed using Cronbach's alpha coefficient. The results showed that the overall Cronbach's alpha coefficient of the adapted ERS was 0.902, indicating excellent internal consistency reliability. In addition, all constructs demonstrated satisfactory internal consistency. PR obtained a Cronbach's alpha of 0.882, ER obtained 0.891, and SR obtained 0.907. Since all values exceeded the recommended threshold of 0.70, the adapted ERS was considered reliable and suitable for assessing multidimensional resilience among college students. Therefore, the adapted ERS demonstrated satisfactory reliability and was appropriate for assessing multidimensional resilience among college students.

Table 9 Reliability

Construct	Number of Items	Cronbach's Alpha	Interpretation
Overall ERS	15	0.902	Excellent
PR	5	0.882	Good
ER	5	0.891	Good
SR	5	0.907	Excellent

DISCUSSION

This study aimed to adapt and validate the Essential Resilience Scale (ERS) among Chinese college students. Overall, the findings provide empirical support for the psychometric quality of the adapted scale. The item

analysis results showed that all 15 items had satisfactory discriminatory power and adequate corrected item-total correlations, supporting the retention of all items. In addition, the results of EFA and CFA supported the three-dimensional structure of the adapted ERS, namely Physical Resilience, Emotional Resilience, and Social Resilience. These findings are generally consistent with the theoretical structure of the original ERS proposed by Chen et al. (2015).

The three-dimensional structure identified in this study is meaningful for understanding multidimensional resilience among college students. Physical Resilience reflects students' capacity to maintain energy and recover from physical strain, Emotional Resilience reflects their ability to regulate emotions and withstand psychological pressure, and Social Resilience reflects their ability to cope with interpersonal difficulties and social challenges. These dimensions are particularly relevant to college students, who may face academic pressure, interpersonal stress, social exclusion, and covert bullying during the process of psychological development and social adaptation. The CFA results further confirmed that the observed items adequately represented their corresponding latent constructs, providing evidence for the structural validity of the adapted scale.

The present study also highlights the importance of contextual adaptation in scale validation. Although the original ERS has demonstrated good psychometric properties in adult populations, several items were more closely related to workplace or general life contexts. In this study, minor revisions were made to improve the contextual relevance and readability of the scale for college students. For example, the item related to "working for a long time" was revised to "studying for a long time," and some Chinese expressions were adjusted to better match students' everyday language. The results showed that these adaptations did not alter the original factor structure but enhanced the suitability of the scale for the target population.

The adapted ERS also showed satisfactory convergent validity, discriminant validity, and internal consistency reliability. The CR and AVE values met the recommended criteria, indicating that the items within each dimension were strongly associated with their corresponding constructs. Meanwhile, the discriminant validity results suggested that the three dimensions were related but empirically distinct. This supports the use of the adapted ERS as a multidimensional instrument for assessing resilience among Chinese college students. From a practical perspective, the scale may be useful for future research on college student mental health, covert bullying prevention, and dance/movement therapy interventions, particularly for evaluating changes in students' physical, emotional, and social resilience.

Several limitations should be noted. First, the participants were mainly college students from Shandong Province, China, which may limit the generalizability of the findings to students from other regions or educational contexts. Second, this study used convenience sampling, and future studies could adopt more diverse and representative samples. Third, although this study examined the structural validity, convergent validity, discriminant validity, and internal consistency reliability of the adapted ERS, future research may further examine test-retest reliability, criterion-related validity, and measurement invariance across gender, grade level, or different student groups. Overall, the adapted ERS demonstrated satisfactory psychometric properties and may serve as a reliable and valid tool for assessing multidimensional resilience among Chinese college students.

CONCLUSION

This study revised and validated the Essential Resilience Scale (ERS) among Chinese college students. The adapted scale retained the original three-dimensional structure, including Physical Resilience, Emotional Resilience, and Social Resilience. The results of item analysis, exploratory factor analysis, confirmatory factor analysis, convergent validity, discriminant validity, and reliability testing all supported the psychometric quality

of the adapted ERS. Therefore, the adapted ERS can be considered a reliable and valid instrument for assessing multidimensional resilience among Chinese college students. It also provides a useful measurement tool for subsequent research on dance/movement therapy interventions and multidimensional resilience development in the context of covert bullying prevention.

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APPENDIX THE ESSENTIAL RESILIENCE SCALE (ERS) FOR CHINESE COLLEGE STUDENTS

This questionnaire aims to assess your psychological resilience, including your ability to cope with physical fatigue, emotional pressure, interpersonal difficulties, setbacks, and other challenging situations. Please read each item carefully and choose the response that best represents your actual situation. There are no right or wrong answers, and your responses will be used only for research purposes. Please tick “√” under the corresponding number for each item. “1” = strongly disagree, “2” = disagree, “3” = uncertain, “4” = agree, and “5” = strongly agree.

Dimensions	Items	1	2	3	4	5
Physical Resilience	1. Difficulties and hardship rarely stop me. 天生能够吃苦耐劳					
	2. I can continuously study for a long time without feeling tired. 能够连续学习长时间，也不会感到疲劳					
	3. My body can recover quickly after being physically exhausted. 非常劳累之后也能很快恢复					
	4. I can continue my tasks even when I am very thirsty or hungry. 在非常饥饿口渴的情况下也能坚持					
	5. No matter how hungry or thirsty, I recover quickly after eating or drinking. 再饿再渴，只要饱餐饱饮之后就恢复了					
Emotional Resilience	6. I consider myself an emotionally “strong” person. 天生就是一个心理承受能力很强的人					
	7. I can handle big, unexpected and very important events calmly. 无论什么大事急事和意外事件发生时，都能沉着应对					
	8. I always have hope when I face major difficulties or very bad situations. 面对重大困难或身处绝境时，总是能够看到希望					
	9. I can quickly get over sadness and feeling depressed. 能够很快地从悲伤和忧郁的情绪中恢复过来					

Dimensions	Items	1	2	3	4	5
	10. I can still stay grounded when extremely good things happen to me. 即使是再大的喜事来临，也从来不得意忘形					
Social Resilience	11. I can maintain good relationships for a long time with bad-tempered people. 与脾气不好的人长期相处也不发生矛盾					
	12. I can manage to learn from a very strict person. 能够从要求十分严厉的人那里学到本领					
	13. I believe in myself even when I am repeatedly teased, looked down upon and made fun of. 反复遭到别人的鄙视、嘲笑、挖苦也不会对自己失去信心					
	14. I believe in truth and justice when I am wronged or framed by others. 即使受到冤枉和诬陷，也坚信有一天事实会真相大白					
	15. I always rise up again quickly from big setbacks and failures. 经历巨大挫折和失败后，总是能够很快重新站起来					