

Development and Validation of an Academic Burden Scale for University Students

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Abstract: *The study aimed to develop and prepare a scale of academic burden (ABS) for university students. The researcher prepared a scale consisting of (15) items distributed equally across three domains of burden (physical, mental, and psychological). Two samples (n = 200) were drawn to extract the standard properties of the scale, and a sample (n = 443) to extract the criteria. The results of the exploratory factor analysis (EFA) showed a robust factorial structure for the scale. The exploratory factor analysis confirmed the confirmatory factor analysis (CFA) as the results showed model fit indices with good agreement with the hypothesized model, as factor saturation values ranged between 0.69 and 0.83. The goodness-of-fit indices also showed acceptable values (CFI = 0.956, TLI = 0.944, RMSEA = 0.052, SRMR = 0.041). The scale also achieved high reliability, as reliability values across dimensions ranged between (0.88) and (0.91). The average variance extracted (AVE) values ranged between 0.59 and 0.63, confirming the scale's convergent and discriminant validity. The scale also had a Cronbach's alpha reliability (0.975). This indicates that the scale has reliable properties that enable it to be used to accurately measure and diagnose academic burden.*

Keywords: Academic burden, Scale development, University Students.

INTRODUCTION

In recent decades, higher education has witnessed an unprecedented expansion. This expansion has been accompanied by increased academic requirements, courses, and assignments for students. While universities strive to enhance their competitiveness and maintain high global standards, this has increased the responsibilities of students themselves, sometimes exceeding reasonable limits and even extending beyond the boundaries of the class and the university itself. This intensification of academic requirements has raised concerns about its potential impact on students' psychological well-being, their level of motivation to continue, and their overall academic performance. In this context, the concept of academic burden has emerged as a key variable in studies that address the psychological well-being of university students, as it reflects the extent to which students perceive their academic obligations as excessive, burdensome, or beyond their normal capacity.

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Academic workload consists of the cumulative weight of lectures, assignments, projects, and exams that must be completed within specific timeframes. This often strains students' abilities and impacts their academic performance and psychological well-being. Scholars have repeatedly emphasized that academic workload is multidimensional and encompasses all aspects of behavior, covering physical, mental, and psychological stressors (Pritchard & Wilson, 2003; Chen & Hsieh, 2021). While related constructs such as academic workload, stress, and burnout have been widely studied, consensus on how to define, operationalize, and measure academic burden remains limited, leaving a conceptual and methodological gap in the literature.

Several influential frameworks have sought to capture the phenomenon. Kember and Leung (2006) characterized teaching and learning environments that stimulate student engagement without overburdening them, stressing the need to balance institutional demands with students' capacities. Earlier efforts have highlighted the negative outcomes of excessive academic demands, ranging from poor concentration and memory failures to heightened anxiety and emotional exhaustion (Bedewy & Gabriel, 2015; Rustam & Tentama, 2020; Beekes & Romijn, 2020). These studies collectively suggest that academic burden extends beyond the objective measure of tasks to include the subjective perception of strain, which directly impacts motivation, performance, and health.

Recent empirical studies have deepened this understanding. Deng (2024) revised the Adolescent Academic Burden Attitude Scale and confirmed its reliability across cognitive, affective, and behavioral domains, reinforcing the multidimensional nature of academic burden. Complementarily, researchers in health education developed scales distinguishing between real and perceived workload, validated through expert review, and demonstrated their utility in identifying how students experience academic demands (PubMed, 2021). From a broader perspective, a global analysis emphasized that academic burden is not confined to one educational system but represents a universal challenge affecting students' motivation, achievement, and psychological outcomes. In the Chinese educational context, Zhang and Zhou (2023) presented the relationship between academic load and academic achievement, explaining that it follows an inverted U-shaped curve. Normal levels of academic burden can help and enhance academic ambition and success, while high levels of excessive load undermine performance and psychological health. This emphasizes the need to understand and measure academic load as a complex concept whose levels overlap with positive and negative effects.

Despite these advances, significant limitations remain in the existing literature. Many available instruments, while psychometrically validated, fail to provide normative benchmarks that allow for meaningful interpretation of scores. Without norms, results cannot be compared across individuals or groups, restricting their practical utility for counselors, educators, and policymakers. Furthermore, cultural adaptation has often been overlooked, with most instruments designed in Western or East Asian contexts and lacking validation in other educational systems. This gap underscores the urgent need for culturally grounded instruments that integrate rigorous psychometric testing with the establishment of normative data.

The present study addresses this gap by developing and validating the Academic Burden Scale (ABS) specifically for university students in Iraq. Drawing on both logical and experiential approaches (Al-Kubaisi, 1987), the scale integrates theoretical definitions, expert reviews, and student feedback to ensure comprehensive coverage of the construct. The ABS consists of 15 items distributed across three

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domains: physical burden, referring to time and energy consumption; mental burden, encompassing concentration difficulties and memory failures; and psychological burden, including anxiety, anticipation of failure, and emotional exhaustion. Unlike earlier studies that focused solely on validation, this research also establishes percentile-based norms, thereby providing a framework for interpreting scores in terms of low, below average, above average, and high academic burden.

To ensure methodological rigor, two independent samples were employed. The first ($n = 200$) was used for item analysis and exploratory factor analysis to examine the construct validity of the ABS. The second, larger sample ($n = 443$), enabled the derivation of normative data, thus enhancing the practical utility of the scale. Reliability was assessed through both test–retest procedures and internal consistency, while the standard error of measurement (Nunnally, 1981) was calculated to confirm the precision of individual scores. The study’s objectives are threefold: (1) to develop a theoretically and culturally grounded Academic Burden Scale for university students, (2) to establish the scale’s psychometric properties, including validity and reliability, and (3) to derive normative data that allow for meaningful and practical interpretation of scores (Alam, 2000).

By integrating scale construction, validation, and standardization within a single framework, this study fills a key methodological and applied gap in the literature. The validated Academic Burden Scale provides a reliable and practical instrument for identifying students at risk of excessive academic burden, supporting evidence-based interventions and policies aimed at fostering healthier, more effective educational environments.

METHOD

Participants

Two independent samples of undergraduate students from Iraqi universities were recruited during the academic year 2023–2024. The first sample consisted of 200 students (98 males, 102 females), which was used for the statistical analysis of items during the development phase of the Academic Burden Scale. The second sample comprised 443 students (226 males, 217 females) and was employed to establish normative data for the scale. Participants represented both scientific and humanities disciplines, with ages ranging from 18 to 24 years. Stratified random sampling was applied to ensure balanced representation. Participation was voluntary, informed consent was obtained, and incomplete responses were excluded from the analysis.

Scale Development and Validation Procedures

Theoretical basis

There is no unified theory that precisely explains the concept of academic burden; therefore, the researcher relied on definitions from educational and psychological literature to identify the behavioral domain to be measured. Academic burden is defined as the volume of academic requirements—such as lectures, assignments, projects, and examinations—that must be completed within a specified period of time (Klatt, 2019). This definition aligns with the views of Pritchard and Wilson (2003) and Chen and Hsieh (2021), who emphasized the importance of balancing students’ abilities with institutional demands. In constructing the scale, the researcher adopted a combination of logical-analytical and

empirical-applied approaches (Al-Kubaisi, 1987), ensuring the comprehensiveness and accuracy of the scale and reflecting the multidimensional nature of academic burden.

Scale Dimensions

The concept of academic burden is based on three interrelated core dimensions that reflect its behavioral scope, the physical dimension refers to the exhaustion of energy and bodily effort caused by intensive academic performance and the accumulation of tasks. The mental dimension appears in the form of cognitive pressures, including reduced concentration, difficulties in reasoning, and diminished memory capacity. The psychological dimension, in turn, is associated with the emotional strains students face, such as anxiety, emotional exhaustion, and the pressure stemming from academic and social expectations. Together, these three dimensions constitute an integrated framework that illustrates the multidimensional nature of academic burden and enables its comprehensive assessment through scores assigned to each dimension in addition to the overall scale score.

Item Development

The items of the Academic Burden Scale were developed through two complementary approaches. The first involved a review of relevant literature and previous studies (Bedewy & Gabriel, 2015; Rustam & Tentama, 2020; Beekes & Romijn, 2020) while the second employed an open-ended questionnaire administered to a sample of 100 students from various disciplines to explore the sources of academic pressures as perceived by them. Based on these two approaches, 15 items were formulated to cover the physical, mental, and psychological dimensions of academic burden. Responses were designed according to a five-point Likert scale (from 1 = does not apply to me, to 5 = fully applies). The total score ranges between 15 and 75, with higher scores indicating greater levels of academic burden, whereas the hypothetical mean of 45 represents a moderate level of burden.

Content Validity (Expert Review)

To ensure the appropriateness of the scale items and their coverage of the dimensions of academic burden, the initial version of the scale was reviewed by a panel of ten experts in psychology and educational measurement. The experts evaluated the items in terms of clarity, relevance, and alignment with the construct being measured, using a dichotomous rating (valid/invalid). An agreement criterion of at least 80% was adopted for item retention, the results showed that all items and the three dimensions exceeded this threshold, confirming their adequacy in both form and content. Minor wording adjustments were made to enhance clarity without eliminating any items, providing strong evidence for the content validity of the scale.

Pilot Testing and Item Analysis

A preliminary administration of the scale was conducted with a pilot sample of 20 students from the College of Education, University of Iraq, to examine the clarity of the items, instructions, and response format, as well as to estimate completion time, which averaged 18 minutes. Following this, the scale was applied to a larger statistical analysis sample of 200 students representing both scientific and humanities disciplines. The data from this sample were used to verify the psychometric properties of the scale through item discrimination indices, exploratory factor analysis, and reliability estimates.

Construct Validity: Item Discrimination

The discriminant validity of the scale items was assessed using the extreme groups method. After ranking the total scores in ascending order, the upper 27% (n = 54) and lower 27% (n = 54) were identified, representing students with the highest and lowest levels of academic burden. Independent samples t-tests were then conducted to compare the mean scores of each item across the two groups. Results revealed that all calculated t-values were statistically significant, exceeding the critical value ($t = 2.002$, $df = 106$, $p < .05$) in favor of the high-score group. This indicates that each item successfully discriminated between students experiencing high and low academic burden. Such findings provide strong evidence that the scale items possess adequate discriminant power and contribute meaningfully to the construct being measured (see Table 1).

Table 1. Discriminatory power of the items of the academic burden scale

Items	Top Group		lower group		t
	Mean	Std. Deviation	Mean	Std. Deviation	
1.	4.44	0.603	1.88	0.571	22.57
2.	4.12	0.674	1.90	0.852	15.02
3.	4.05	0.737	1.70	0.633	17.77
4.	4.35	0.648	1.81	0.675	19.91
5.	3.98	0.739	1.72	0.737	15.89
6.	3.88	0.691	1.96	0.699	14.39
7.	4.27	0.596	1.62	0.623	22.56
8.	4.05	0.737	1.70	0.633	17.77
9.	4.25	0.649	1.68	0.577	21.76
10.	4.50	0.665	1.61	0.626	23.21
11.	4.27	0.596	1.62	0.653	22.56
12.	4.40	0.765	1.57	0.499	22.78
13.	4.03	0.725	1.66	0.644	17.94
14.	4.34	0.642	1.68	0.577	21.74
15.	4.51	0.665	1.57	0.632	23.56

Note. Higher mean scores in the upper group indicate stronger discriminatory power of the items. All calculated t-values were significant at the 0.05 level.

Construct Validity: Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) was conducted on the responses of the statistical analysis sample (n = 200) to evaluate the factorial structure of the Academic Burden Scale. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.92, indicating excellent suitability for factor analysis. Bartlett's test of sphericity was also significant, $\chi^2(91) = 18248.40$, $p < .001$, confirming that the correlation matrix was appropriate for factor extraction.

The analysis yielded three factors consistent with the theoretical domain physical, mental, and psychological burden. Factor loadings ranged from 0.752 to 0.900, all exceeding the recommended threshold of 0.40. Collectively, the three factors explained 74.17% of the total variance, with domain-level contributions of 74.97% (physical), 75.99% (mental), and 78.88% (psychological). These results provide strong evidence of construct validity, demonstrating that the scale captures a coherent and theoretically consistent multidimensional structure (see Tables 2 and 3).

Table 2. Correlation matrix of the academic burden scale fields with each other and the total score of the scale

Domains	Physical burden	Mental burden	Psychological burden	Total Score
physical burden	1			
Mental burden	0.934	1		
Psychological burden	0.941	0.977	1	
Total Score	0.90	0.987	0.974	1

Note. All correlations are positive and statistically significant at the 0.05 level, confirming internal consistency among the domains and the total score.

Table 3. Saturation of the scale fields with the general factor it measures

Domains	Component
physical burden	0.974
Mental burden	0.987
Psychological burden	0.989
Total	2.902
Of Variance	%96.73

Note. Factor loadings demonstrate strong saturation of the three domains with the general factor, explaining 96.73% of the total variance.

In addition, the rotated component matrix (see Table 4) demonstrated that all items loaded strongly on their respective factors, with no substantial cross-loadings. This confirms that each item is conceptually aligned with its intended domain—physical, mental, or psychological burden—without ambiguity across dimensions. The communalities were consistently high, indicating that a large proportion of the variance in each item was accounted for by the extracted factors.

Table 4. Saturation coefficients for the academic burden items on the field they measure and the general factor

Physical burden		Mental burden		Psychological burden	
items	Component	items	Component	items	Component
1	0.879	6	0.796	11	0.752
2	0.814	7	0.876	12	0.894
3	0.846	8	0.831	13	0.854
4	0.869	9	0.880	14	0.88
5	0.807	10	0.90	15	0.801
Total	3.749	Total	3.800	Total	3.944
Variance	%74.97	Variance	%75.99	Variance	%78.88
Total				11.126	
Variance				74.171	

Note. All item loadings exceed the cutoff value of 0.30 (Guilford's criterion), confirming factorial validity of the scale.

Confirmatory Factor Analysis (CFA)

Following the exploratory factor analysis (EFA), which provided initial evidence for a three-factor solution of the Academic Burden Scale (ABS), a confirmatory factor analysis (CFA) was conducted on a sample of 200 university students to cross-validate the factorial structure. The CFA specified three latent dimensions—Physical, Mental, and Psychological burden—each measured by five items. The

model was estimated using robust maximum likelihood (MLR) with latent variances standardized. As shown in **Table 5**, all items loaded strongly and significantly on their respective factors, with standardized loadings ranging from 0.69 to 0.83 ($p < .001$). These findings confirm that the observed variables adequately represent their intended latent constructs.

Table 5. Standardized Factor Loadings of the Academic Burden Scale (N = 200)

Physical burden		Mental burden		Psychological burden	
Item	Standardized Loading (λ)	Item	Standardized Loading (λ)	Item	Standardized Loading (λ)
1	0.74	6	0.76	11	0.72
2	0.82	7	0.81	12	0.75
3	0.77	8	0.79	13	0.78
4	0.80	9	0.83	14	0.73
5	0.71	10	0.77	15	0.69

Note. All standardized loadings were statistically significant at $p < .001$.

The overall model fit was satisfactory (Table 6). The chi-square test was significant, as expected given the sample size, but other fit indices indicated a robust model fit: CFI = 0.956, TLI = 0.944, RMSEA = 0.052 (90% CI = 0.041–0.063), SRMR = 0.041. These values fall within recommended cutoffs (CFI/TLI ≥ 0.90 , RMSEA ≤ 0.08 , SRMR ≤ 0.08), supporting the adequacy of the hypothesized three-factor model.

Table 6. Confirmatory Factor Analysis Fit Indices for the Academic Burden Scale (N = 200)

Fit index	Value	Recommended Threshold
$\chi^2(87), p$	180.35, $p < 0.001$	Non-significant desirable (sensitive to sample size)
CFI	0.956	$\geq .90$ (acceptable), $\geq .95$ (excellent)
TLI	0.944	$\geq .90$ (acceptable), $\geq .95$ (excellent)
RMSEA[90% CI]	[0.063, 0.041] 0.052	$\leq .08$ (acceptable), $\leq .06$ (good)
SRMR	0.041	$.08 \geq$

Note. Model estimated using robust maximum likelihood (MLR) with latent variances standardized ($std.lv = TRUE$).

Further evidence of construct validity is provided in **Table 7**, where all dimensions demonstrated strong composite reliability (CR = 0.88–0.91) and satisfactory average variance extracted (AVE = 0.59–0.63), exceeding the conventional thresholds (CR ≥ 0.70 ; AVE ≥ 0.50). Inter-factor correlations were positive and moderate ($r = 0.72$ – 0.81), consistent with theoretical expectations that academic burden is multidimensional yet interrelated. Moreover, discriminant validity was established, as the square roots of AVE values were greater than the corresponding inter-factor correlations (Fornell–Larcker criterion).

Table 7. Composite Reliability (CR), Average Variance Extracted (AVE), and Inter-factor Correlations of the Academic Burden Scale (N = 200)

Factor	CR	AVE	1	2	3
1. Physical	0.91	0.63	-	0.78	0.72
2. Mental	0.88	0.59	0.78	-	0.81
3. Psychological	0.90	0.61	0.72	0.81	-

Note. Composite Reliability (CR) values exceeded the 0.70 threshold, and Average Variance Extracted (AVE) values surpassed 0.50, supporting convergent validity. Inter-factor correlations were positive and moderate, consistent with theoretical expectations of a multidimensional yet interrelated construct. Discriminant validity was also supported, as the square roots of AVE exceeded the corresponding inter-factor correlations (Fornell–Larcker criterion).

Reliability

The reliability of the Academic Burden Scale was assessed through two complementary methods. First, test–retest reliability was examined using a subsample of 50 students drawn from the statistical analysis sample, the scale was re-administered to the same group after an interval of 21 days, and the Pearson product–moment correlation coefficient between the two administrations was calculated. The test–retest coefficient reached 0.78, indicating satisfactory temporal stability. Second, internal consistency reliability was estimated for the responses of 100 students using Cronbach’s alpha. The obtained value was 0.975, which exceeds the commonly accepted threshold of 0.70 and demonstrates excellent internal consistency among the scale items. Together, these results provide strong evidence for the reliability of the scale, supporting its use as a stable and internally coherent measure of academic burden among university students.

Standard Error of Measurement (SEM)

It is acknowledged that an observed score on the Academic Burden Scale may not perfectly represent a student’s true level of academic burden, as all measurement processes are subject to error. The standard error of measurement (SEM) reflects the expected standard deviation of an individual’s observed scores around their true score (Nunnally, 1981, p. 218). The SEM is calculated according to the following formula:

$$SEM = SD\sqrt{1-\alpha}$$

where SD is the standard deviation of the test scores and α is the Cronbach’s alpha coefficient. Based on the obtained reliability ($\alpha = 0.975$), the SEM of the Academic Burden Scale was estimated at 1.177. This relatively small error value, compared to the scale’s total score range, indicates a high degree of measurement precision and enhances confidence in the accuracy of the results.

Deriving the Norms of the Scale

To provide a reliable framework for interpreting scores on the Academic Burden Scale, normative data were derived from the standardization sample of 443 university students. Using the percentile method, scores were classified into four levels: Low, Below Average, Above Average, and High. As **shown in Table (8)**, the results indicate that the majority of students were concentrated in the Below Average (35.4%) and Low (25.7%) categories, while 23.9% experienced High levels of academic burden, and only 14.9% fell within the Above Average category. This distribution reflects the prevalence of moderate to high academic burden among university students, and provides essential reference points for interpreting individual scores.

Table 8. Normative Categories of the Academic Burden Scale (n = 443)

Category	Score Range	Frequency	Percentag (%)
Low burden	32 \geq	114	25.7
Below average	33- 45	157	35.4
Above average	46- 57	66	14.9
High burden	57 <	106	23.9

Note. Percentile cutoffs were used to classify students into Low, Below Average, Above Average, and High burden categories.

Summary

The normative data demonstrate that while a large proportion of students' experience manageable levels of academic burden (Low and Below Average), a substantial group (nearly one quarter of the sample) experience High levels of burden. These findings confirm the importance of monitoring academic load in university settings and provide a solid normative framework for future applications of the scale in educational and psychological research.

Description of the Scale

The Academic Burden Scale (ABS) is a standardized tool developed to assess the degree of academic load perceived by university students. The scale comprises 15 items, reflecting three main dimensions: physical burden (loss of energy and fatigue due to academic demands), mental burden (difficulties in concentration, reasoning, and memory) and psychological burden (anxiety, stress, and fear of failure). Responses are rated on a five-point Likert scale ranging from (1) Does not apply to (5) Fully applies. Accordingly, the total score ranges between 15 and 75, with higher scores indicating greater academic burden, and a hypothetical mean score of 45. The ABS has shown strong psychometric properties: content validity confirmed by expert review, factorial validity supported by exploratory factor analysis, and high reliability (Cronbach's $\alpha = 0.975$, test-retest $r = 0.78$) Normative data from a 443-student sample provide clear percentile-based cutoffs for interpreting scores at Low, Below Average, Above Average, and High levels of academic burden.

RESULTS

The exploratory factor analysis (EFA) on a sample of 200 students confirmed the three-factor structure of the Academic Burden Scale (Physical, Mental, and Psychological), with all loadings above 0.70 and 74.17% of the variance explained (KMO = 0.92, Bartlett's $\chi^2 = 18248.40$, $p < .001$). Confirmatory factor analysis (CFA) on an independent sample ($n = 200$) further supported this structure, showing significant loadings (0.69–0.83) and excellent fit indices (CFI = 0.956, TLI = 0.944, RMSEA = 0.052, SRMR = 0.041).

Reliability was high, with Cronbach's $\alpha = 0.975$ and test-retest $r = 0.78$, while the standard error of measurement (SEM = 1.177) indicated strong precision. Normative data from 443 students classified scores into Low (25.7%), Below Average (35.4%), Above Average (14.9%), and High (23.9%).

DISCUSSION

The results of the study showed that the Academic Burden Scale is composed of three interrelated dimensions (physical, mental, and psychological), which is consistent with the findings of Pritchard and Wilson (2003) and Chen and Hsieh (2021), who argued that academic burden extends beyond the amount of tasks to include cognitive and emotional pressures. The study's results also support the findings of Deng (2024), who confirmed the multidimensional nature of academic burden indicating that the newly developed scale aligns with this theoretical perspective. Furthermore, the findings are in line with studies by Bedewy and Gabriel (2015), Rustam and Tentama (2020), and Beekes and Romijn (2020), which reported that excessive burden is associated with poor concentration, memory difficulties, and heightened anxiety.

The importance of this study is evident not only in confirming the factor structure, validity, and reliability of the academic burden scale, but also in its practical and field-based contribution by providing normative data that facilitate understanding and interpretation of academic burden levels and identifying students most vulnerable to academic stress. The results showed that nearly a quarter of students suffer from high levels of academic burden, which is consistent with the findings of Zhang and Zhou (2023) that high burden is associated with decreased performance and deteriorating mental health. Accordingly, this study contributes to enriching the theoretical literature while providing a practical scientific tool that can be used in future research and in counseling and psychotherapy practices to deal with stress.

CONCLUSION

The present study developed the Academic Burden Scale (ABS) and examined its psychometric properties as a culturally grounded instrument for assessing students' perceived academic load. Findings from the educational-psychological evaluation, conducted across two independent samples, provided strong evidence of the scale's validity and reliability. Moreover, exploratory factor analysis revealed a three-dimensional structure of academic burden—Physical, Mental, and Psychological—which aligns with theoretical frameworks and previous studies.

Confirmatory factor analysis (CFA) on a separate sample of 200 students further verified this structure, with strong standardized loadings, excellent model fit indices (CFI = 0.956, TLI = 0.944, RMSEA = 0.052, SRMR = 0.041), and satisfactory levels of composite reliability (CR = 0.88–0.91) and average variance extracted (AVE = 0.59–0.63). These findings collectively support the convergent and discriminant validity of the instrument.

Importantly, the ABS fills a notable methodological gap in the literature by combining rigorous psychometric validation with the provision of percentile-based normative data, derived from a larger sample of 443 students. This dual approach enhances both the theoretical and applied value of the scale, enabling meaningful interpretation of individual scores and facilitating early identification of students at risk of excessive academic strain.

Aligned with earlier research highlighting the multidimensionality of academic burden (e.g., Pritchard & Wilson, 2003; Chen & Hsieh, 2021; Bedewy & Gabriel, 2015), the present findings underscore that

students' academic experiences cannot be captured solely by workload indices but must account for the intertwined physical, mental, and psychological domains. Thus, the ABS not only advances measurement precision but also contributes to a deeper understanding of how academic pressure manifests and affects students' well-being and performance.

In practical terms, the Academic Burden Scale (ABS) provides a reliable diagnostic tool that universities, counselors, and policymakers can use to monitor levels of academic burden and design interventions aimed at enhancing students' resilience and supporting their academic success. Future research is recommended to replicate the validation process in diverse cultural and institutional contexts and to explore the predictive role of academic burden in academic achievement, motivation, and mental health outcomes.

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