



Adaptation and Psychometric Validation of The Peer Support Questionnaire for Indonesian University Students

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Abstract

University students are in a developmental phase characterized by increasingly complex academic and social demands, making peer support a crucial psychosocial resource for adaptation, academic engagement, and psychological well-being. Although peer support has been widely studied in Indonesia, there is still no multidimensional instrument that has been formally adapted and psychometrically validated for Indonesian university students. This study aimed to adapt and evaluate the psychometric properties of the Indonesian version of the Peer Support Questionnaire (PSQ) developed by Alaei and Hosseinneshad (2020). The study employed a quantitative cross-sectional design involving 530 active university students, purposively sampled from six faculties at a university in Indonesia. The cross-cultural adaptation process followed the framework proposed by Borsari, Damásio, and Bandeira (2012), which included translation, synthesis, back-translation, expert committee evaluation, pilot testing, and psychometric property assessment. Construct validity was examined using Confirmatory Factor Analysis (CFA) with the maximum likelihood estimator in IBM SPSS AMOS version 26. The findings indicated that all items demonstrated adequate standardized factor loadings ranging from 0.70 to 0.84. The five-dimensional model showed good model fit with $\chi^2 = 563.35$ (df = 199); CFI = 0.959; TLI = 0.953; RMSEA = 0.059; and SRMR = 0.030. Convergent validity was established, with Average Variance Extracted (AVE) values ranging from 0.56 to 0.68, while construct reliability was supported by Composite Reliability (CR) values between 0.83 and 0.90. These findings indicate that the Indonesian version of the PSQ is a valid and reliable instrument for measuring peer support among Indonesian university students. The novelty of this study lies in providing a psychometrically validated peer support instrument for universities in Indonesia.

Keywords: Peer support questionnaire, scale, university student, confirmatory factor analysis

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1. Introduction

University students are in a developmental phase characterized by increasingly complex academic demands. During this period, individuals learn to manage themselves and prepare for changes in social roles. This adaptation process places students in a vulnerable position toward psychological distress, which in turn affects academic performance. A systematic review of university students in the Southeast Asian region documented a high prevalence of mental health problems, with average rates of depression at 29.4%, anxiety at 42.4%, and stress at 16.4%, underscoring the urgency of providing adequate psychosocial resources, including peer support, within the regional higher education context [28]. These conditions make the availability of psychosocial support for university students a critical issue [1]. Other studies have also shown that peer social support individually has a significant effect on students' academic procrastination, with a negative relationship direction: the higher the conscientiousness and peer social support, the lower the level of academic procrastination among students [2]. This phenomenon has also been

observed across various universities in Indonesia, indicating that peers serve as a source of motivation and academic support, for example, through group study activities or by providing feedback on collaboratively completed assignments [3]. Peers also provide experiences that enrich students' social development, and research in Indonesia has consistently reported associations between peer support and levels of academic stress, such that the presence of peers facing similar challenges fosters a sense of togetherness in dealing with difficult situations [4].

Psychological distress among students may arise from anxiety regarding goal attainment and psychological instability. In such conditions, peers become a key resource because they are available to share concerns. Peer support is not merely a network between individuals, but also involves empathy and mutual understanding to strengthen one another [5]. Positive relationships with peers motivate students to engage in academic activities, while informational support and feedback from peers can reduce tension and confusion when completing academic tasks [6]. Furthermore, providing support to peers enhances students'

experiences and participation, improves psychological well-being, and enables students to adapt to various situations, particularly throughout the learning process [7]. Peer support cannot be viewed as a one-way process; rather, it is reciprocal in nature, where individuals not only provide but also receive support, thereby strengthening social closeness and fostering psychological well-being. As a form of psychosocial assistance, peer support requires certain skills that can be learned.

Previous research has also demonstrated that peer support involves shared experiences that may reshape perspectives on future Companionship. Social learning experiences make students more capable of navigating more mature Companionship [8]. Certainly, such a construct needs to be measured using valid and adequate instruments in order to contribute to cross-cultural literature. Recent methodological reviews emphasize that cross-cultural adaptation and validation processes are complex procedures requiring systematic steps to achieve semantic, idiomatic, and conceptual equivalence across cultural contexts [9].

A systematic review [10] of peer support interventions in higher education institutions concluded that structured peer support programs are positively associated with improvements in mental health, academic engagement, and students' sense of belonging. A prospective study [11] showed that perceptions of peer support longitudinally predicted improvements in academic competence and reductions in anxiety among students, while another study [12] documented that perceptions of peer support predicted students' academic adjustment through the mediation of academic expectations and professional identity. In the context of measurement, a study reported that a multidimensional social support scale among Chinese university students demonstrated measurement invariance across gender, supporting the notion that the multidimensional social support construct is robust across contexts [13]. More recently, demonstrated within the Study Demands-Resources framework that peer support functions as a critical external resource that fosters academic resilience, which in turn predicts student engagement and psychological well-being among university students [30]. This finding reinforces the theoretical position that peer support is not merely a static social provision but an active resource whose multidimensional functions warrant precise psychometric measurement

In Indonesia, empirical studies have consistently reported that peer support is associated with lower levels of academic stress, higher psychological well-being, and better academic engagement among university students [1,3]. Other studies have also reported a significant negative association between peer support and student stress levels [1], while additional findings documented a consistent relationship between

peer support and academic stress [4]. Furthermore, peer support together with conscientiousness simultaneously predicted reductions in academic procrastination [2], whereas [3] found that social support, including peer support, was a significant predictor of the psychological well-being of migrant students. Studies [14], [15] added evidence that peer support consistently predicts student engagement among Indonesian university students. Nevertheless, most of these studies measured peer support using general social support scales or researcher-developed instruments that did not specifically capture the multidimensional functions of peer support within academic contexts. In many cases, peer support was treated as a subdimension of the broader social support construct rather than as an independent multidimensional construct [2,14,16].

Peer support does not merely involve attachment but also serves various distinct functions. Peer support encompasses five dimensions: Informational Support, which provides information, advice, and explanations related to tasks and situations; Emotional Support, which offers empathy, care, and emotional closeness; Instructional Support, which assists in explaining academic materials or delivering specific skills; Feedback/Validation Support, which strengthens individuals through feedback that can enhance self-confidence and motivation; and Companionship, which involves togetherness and social involvement, thereby reducing loneliness and fostering social bonds among peers [17]. The development and validation of peer support instruments using rigorous psychometric procedures have also been increasingly recognized as important within the international literature. For example, Lu and colleagues [29] developed the Mental Health Support Scale for Adolescents among students and reported strong reliability coefficients, underscoring that multidimensional and psychometrically validated peer support scales are necessary to produce trustworthy inferences in peer support research. The Peer Support Questionnaire (PSQ) is an instrument developed to measure peer support as a multidimensional construct, emphasizing the functions embedded within each dimension.

Although peer support has been widely studied within the context of higher education in Indonesia, up to the time this study was conducted, no published evidence was found reporting the adaptation and psychometric validation of the PSQ specifically for Indonesian university students using systematic cross-cultural adaptation procedures. This gap has two important implications. First, Indonesia is a collectivist society characterized by values of interpersonal harmony, reciprocal obligations, and group orientation [21]; therefore, instruments developed in individualistic contexts or other languages cannot be assumed to function equivalently without empirical evidence

examining their semantic, idiomatic, and conceptual equivalence. Second, the absence of a validated multidimensional peer support instrument limits theoretical development because it prevents the disaggregation of peer support functions that explain specific academic and psychological outcomes among Indonesian university students. Based on this gap, the present study aims to examine the original factor structure of the PSQ among Indonesian university students through Confirmatory Factor Analysis (CFA) to evaluate its construct validity and cultural suitability within the Indonesian context, following the cross-cultural adaptation framework proposed by Borsa, Damásio, and Bandeira [22]. The novelty of this study lies in providing a multidimensional peer support instrument that has been culturally adapted and psychometrically validated for Indonesian university students.

Research Methods

2.1 Research Design

This study employed a quantitative cross-sectional research design with an instrument validation approach to adapt and evaluate the psychometric properties of the Indonesian version of the Peer Support Questionnaire (PSQ) developed by Alaei and Hosseinneshad [17]. A cross-sectional design was selected because it allows data collection from a large and heterogeneous sample at a single point in time, thereby supporting factorial validity testing through Confirmatory Factor Analysis (CFA) with stable parameter estimation [26]. Data collection was conducted between February and April 2025, with the primary objective of examining the structural and cultural fit of the five-dimensional PSQ model among Indonesian university students through the cross-cultural adaptation framework proposed by Borsa, Damásio, and Bandeira [22]. The construct validity of the adapted instrument was tested using Confirmatory Factor Analysis (CFA) with IBM SPSS AMOS Version 26, a covariance-based structural equation modeling platform widely used in psychometric adaptation studies [20,23].

2.2 Participant

The participants in this study consisted of 530 active undergraduate students from a public university in Indonesia, recruited using a purposive sampling technique. Purposive sampling was selected because the study specifically targeted respondents who possessed sufficient academic and social interaction experiences within the university context to respond meaningfully to the PSQ items, rather than to probabilistically represent the population of Indonesian university students [23]. The inclusion criteria were: (a) active undergraduate (bachelor's degree) students; (b) aged between 18 and 25 years; (c) currently enrolled in the second to eighth semester to ensure adequate exposure to peer

interactions in academic settings; (d) fluent in the Indonesian language; and (e) willing to provide electronic informed consent. The exclusion criteria included: (a) postgraduate or professional program students; (b) students on academic leave; and (c) incomplete questionnaire responses.

Table 1. Demographic Characteristics of Participants

Variable	n	%	<i>M</i>	<i>SD</i>
Gender				
Male	196	37%		
Female	334	63%		
Age			20.88	1.14
20	165	31%		
21	209	39%		
22	102	19%		
23	53	10%		
Faculty Program				
Economics and Business	155	29%		
Social and Political	85	16%		
Psychology	105	20%		
Education Training	82	15%		
Engineering	71	13%		
Others	32	6%		

2.3 Instrument

The instrument used in this study was the Peer Support Questionnaire [17]. This instrument aims to measure students' peer support. This instrument consists of five dimensions, namely (1) Informational, (2) Emotional, (3) Instructional, (4) Validation/Feedback, and (5). The instrument has 22 statement items. The instrument uses a Likert Scale consisting of five answer choices, namely (1) Strongly Disagree, (2) Tend to Disagree, (3) Don't Know, (4) Tend to Agree, and (5) Strongly Agree. Higher scores indicate higher levels of peer support, while lower scores reflect lower perceptions of peer support.

In addition to the PSQ, the survey included a demographic section to obtain background information about participants. The demographic variables collected comprised gender, faculty or program of study, and current semester level. These data were used to describe the sample's characteristics and were analyzed descriptively.

2.4 Research Procedures

This research has passed the research ethics requirements issued by Sultan Idris University of Education, Malaysia, Number 2025-0692-01. The instrument adaptation process was conducted in accordance with the cross-cultural adaptation guidelines established by [22]. Several systematic steps were taken to ensure the semantic, conceptual, and cultural

equivalence of the Indonesian version of the Peer Support Questionnaire (PSQ).

First, the initial forward translation process was conducted by a bilingual psychology lecturer fluent in English and Indonesian and experienced in developing psychological scales. The translator attempted to maintain the conceptual meaning of each item, rather than simply performing a literal translation.

Second, a synthesis of the translated results was conducted to assess clarity of wording and conceptual consistency. Several minor adjustments were made to ensure that the language used was culturally appropriate and easily understood by Indonesian students.

Third, a back-translation was conducted by an independent bilingual translator who was not involved in the initial translation and had no access to the original instrument. The purpose of this back-translation was to verify the semantic equivalence between the translated and original versions of the PSQ. The back-translation results were then compared with the original instrument to identify potential differences in meaning.

Fourth, an expert review committee conducted an assessment. The panel consisted of two senior psychology lecturers with expertise in psychometrics and one professional psychologist experienced in psychological assessment. The experts evaluated each item based on language clarity, cultural relevance, conceptual equivalence, and content validity. Revisions were made based on the expert panel's recommendations to improve wording accuracy and contextual appropriateness.

Fifth, a pilot test was conducted on 30 undergraduate students who met the criteria for active students. This pilot test aimed to assess the clarity, understandability, and readability of the translated items. Participants were asked to provide feedback on ambiguous or unclear statements. Based on the pilot test results, minor linguistic adjustments were made to improve item clarity before the main data collection.

2.5 Data Analysis Method

This study used a Confirmatory Factor Analysis (CFA) to test the factor structure of the Indonesian version of the Peer Support Questionnaire (PSQ). CFA was used to validate the measurement model based on the theoretical framework of the original instrument, given that the PSQ factor structure has been conceptually established as a multidimensional construct.

Measurement model fit was assessed using several model fit indices, including Chi-square (χ^2), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). CFI and TLI values >0.90 indicate adequate model fit, while RMSEA and SRMR values

<0.08 indicate acceptable model fit. Confirmatory Factor Analysis (CFA) was employed rather than Exploratory Factor Analysis (EFA) because the factor structure of the Peer Support Questionnaire has been theoretically established and empirically validated in the original version, making CFA appropriate for testing construct validity in a cross-cultural adaptation context.

Standardized factor loadings (λ) ≥ 0.70 were considered indicators of strong item-construct relationships [26]. Convergent validity was assessed using the Average Variance Extracted (AVE) with a threshold of ≥ 0.50 , and the Composite Reliability (CR) with a threshold of ≥ 0.70 [27]. Discriminant validity was evaluated through the Fornell–Larcker criterion, whereby the square root of AVE for each construct must exceed its correlations with the other constructs [27]. The internal reliability of each subscale was also reported using Cronbach's α coefficient

3. Results and Discussions

This study describes standardized factor loadings analyzed to assess the extent to which each item represents the latent construct being measured. Reporting standardized factor loadings allows comparison of the relative contribution of each indicator within the same construct. Standardized factor loadings > 0.50 are considered to have contributed to their respective latent constructs.

Table 2. Standardized Factor Loadings of the Peer Support Questionnaire

Construct	Item	Standardized Loading
Informational	PS1	0.72
	PS2	0.78
	PS3	0.75
	PS4	0.71
	PS5	0.73
Instructional	PS10	0.76
	PS11	0.82
	PS12	0.79
Emotional	PS6	0.70
	PS7	0.81
	PS8	0.74
	PS9	0.77
Validation	PS13	0.80
	PS14	0.84
	PS15	0.83
	PS16	0.81
Companionship	PS17	0.70
	PS18	0.73
	PS19	0.78
	PS20	0.74
	PS21	0.82
	PS22	0.76

The Peer Support Questionnaire demonstrated adequate standardized factor loadings and adequate coverage of each latent construct. The values ranged from 0.70 to 0.84, exceeding the minimum threshold of 0.70.

Before evaluating the model fit within the Indonesian university student sample, it is important to review the consistency of the psychometric properties of the Peer Support Questionnaire (PSQ) across various cultural contexts in which it has been adopted. The PSQ instrument developed by Mostafaei Alaei and Hosseinezhad [17] demonstrated high reliability in its original development study in Iran, with a Cronbach's α coefficient of 0.935. The instrument has subsequently been adopted in several other countries and has consistently shown good reliability. In Iraq, the PSQ was reported to have a Cronbach's α value of 0.96 among junior high school students in Wasit Province [26], while in Pakistan, the use of the PSQ among adolescents in Punjab maintained high reliability without significant decline from the original version [24]. In China, the PSQ was also reported to demonstrate good reliability based on validation of the original version, although its application within that context remains limited [25]. Overall, the consistent pattern of high reliability across these cultural contexts provides a strong empirical basis suggesting that the PSQ can be adapted and reliably used in Indonesia, provided that systematic cross-cultural adaptation procedures are thoroughly implemented.

Building upon this consistent psychometric track record, the present study subsequently evaluated the overall fit of the five-dimensional PSQ measurement model within the context of Indonesian university students through Confirmatory Factor Analysis, based on the criteria recommended [26].

After ensuring that each item adequately loaded its respective latent construct, the overall structural model was assessed. The following are the model fit results.

Table 3. Model Fit Indices of the Confirmatory Factor Analysis

Fit Index	Value	Interpretation
Chi-square	563.35	Significant
df	199	-
CFI	0.959	Fit
TLI	0.953	Fit
RMSEA	0.059	Fit
SRMR	0.030	Fit

The chi-square test yielded a statistically significant result ($\chi^2 = 563.35$; $df = 199$; $p < .001$). Although a

significant chi-square value is conventionally interpreted as evidence of discrepancy between the model and the observed data, the chi-square statistic is widely recognized as being highly sensitive to sample size. In large samples ($N > 400$), statistically significant chi-square values are almost invariably obtained even when the model demonstrates substantively adequate fit [26]. For this reason, contemporary CFA reporting standards recommend placing greater emphasis on fit indices that are less sensitive to sample size, particularly the CFI, TLI, RMSEA, and SRMR [26,27]. In addition, the χ^2/df ratio of 2.83, which falls below the conventional threshold of 3.0, further indicates an acceptable level of model fit.

Both the Comparative Fit Index (CFI = 0.959) and the Tucker–Lewis Index (TLI = 0.953) exceeded the recommended cutoff value of 0.95 for good fit. The Root Mean Square Error of Approximation (RMSEA = 0.059) fell within the range commonly interpreted as indicating close fit, while the Standardized Root Mean Square Residual (SRMR = 0.030) was substantially below the recommended threshold of 0.08, suggesting that residual covariances among the observed indicators were minimal. Collectively, these four fit indices converge on the conclusion that the five-dimensional PSQ structure proposed by Alaei and Hosseinezhad [17] was successfully replicated within the Indonesian university student population.

The pattern of model fit observed in the present study closely aligns with both the original PSQ validation study [17] and international adaptations of other multidimensional peer support instruments. Luo and colleagues [18] reported values of CFI = 0.94, TLI = 0.93, and RMSEA = 0.06 for the Chinese Physical Exercise Peer Support Questionnaire, whereas Rahmanto [20] reported CFI = 0.952, TLI = 0.941, and RMSEA = 0.061 in the adaptation of the ISEL-16 for Indonesian university students. Accordingly, the Indonesian version of the PSQ demonstrated comparable performance and, in several respects, was superior to comparable instruments adapted into other Asian languages, thereby supporting the interpretation that the multidimensional peer support construct possesses strong cross-cultural robustness. The successful replication of the five-factor structure within a collectivist cultural context also addresses a longstanding concern in cross-cultural psychometrics, namely, whether multidimensional support constructs developed primarily in Western or non-collectivist samples are able to retain their factor architecture when translated into collectivist languages and cultural settings [21,22].

The next step is to conduct convergent validity and construct reliability tests for each existing dimension. Reliability was assessed using Cronbach's alpha and Composite Reliability (CR), and validity using the Average Variance Extracted (AVE).

Table 4. Convergent Validity and Reliability of the Peer Support Questionnaire

Construct	AVE	CR
Informational	0.61	0.84
Instructional	0.63	0.88
Emotional	0.56	0.83
Validation	0.68	0.89
Companionship	0.62	0.90

Discriminant validity was assessed to ensure that each PSQ dimension represents a distinct construct. The results indicate that the inter-construct correlations were within acceptable limits, suggesting that the five dimensions of peer support are empirically distinguishable and measure conceptually different aspects of peer support.

Construct validity and reliability assessments indicate that the Indonesian version of the Peer Support Questionnaire meets the recommended psychometric criteria. All AVE values exceed the minimum limit of 0.5, and CR exceeds the minimum limit of 0.7. [27]. The model fit in this study is good, indicating that the relationship between indicators and latent constructs is formed consistently and not by chance [26]. These results are in line with the original findings that the peer support instrument has strong factor loadings and good model fit indices. The Indonesian version of the PSQ appears stable and relevant for use among university students.

4. Conclusions

This study provides empirical evidence that the Indonesian version of the Peer Support Questionnaire (PSQ) demonstrates adequate validity and reliability for use with university students. The findings support the applicability of the original five-dimensional structure in higher education in Indonesia and contribute to the development of a culturally appropriate instrument to measure peer support in academic settings. This instrument can be used by researchers to assess peer support using a psychometrically validated Indonesian version.

The availability of this validated multidimensional measurement tool has important implications for research and practice. Researchers can utilize this instrument to further examine the role of peer support on students' psychological well-being, academic engagement, and career development. Practitioners in higher education settings can also use this instrument to more comprehensively understand the dynamics of student social interactions. The main contribution of this research lies in demonstrating the cultural suitability of PSQ for Indonesian students. Indonesia is a collectivist

society characterized by strong communal values, interpersonal harmony, and reciprocal obligations within groups.

However, several limitations should be noted. This study used a cross-sectional design, limiting causal inference. Furthermore, the sample was predominantly female students, and measurement invariance tests by gender and academic discipline were not conducted, which may affect the generalizability of the findings. This study was also conducted with students from a single geographic region, so the results may not fully represent students in other regions of Indonesia with different cultural and academic characteristics. Further research is recommended to replicate the validation process in various regions and types of higher education institutions to strengthen the generalizability and stability of the PSQ instrument in Indonesia.

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Author Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	W
Nindy Amita	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hazalizah Hamzah	✓	✓	✓	✓	✓	✓	✓	✓	✓

Conflict of Interest Statement

The author declares that there is no conflict of interest in this research. The author conducted the research independently without any personal or institutional influence or interests.

Informed Consent

The authors have obtained consent from all respondents before conducting further research.

Ethical Approval

This research has received a graduation certificate from the Sultan Idris Education University Malaysia.



Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available because they contain information that could reveal the identity and privacy of research participants.

References

- [1] Supriadi NNR, Maryama N, Hermawati I, Azizah NAR, Hidayat R. The relationship between peer support and stress levels among university students. *KIAN J Ilmu Kesehatan*. 2024;3(2):73–84.

- [2] Syahrina IA, Muarifah A. Conscientiousness dan dukungan sosial teman sebaya terhadap prokrastinasi akademik mahasiswa jurusan sistem komputer. *Psyche* 165 J. 2023;16(3):238–43.
- [3] Afrisa Eviliani A, Nurhayaty A, Syah TA. Psychological well-being pada mahasiswa rantau: adakah pengaruh dari dukungan sosial dan penyesuaian diri? *J Ilmiah Psyche*. 2024;6(2):45–58.
- [4] Prayitno HA, Hidayati F. Hubungan dukungan sosial teman sebaya dengan stres akademik pada mahasiswa. *J Psikol An-Nafs*. 2023;8(1):45–56.
- [5] Lakey B, Orehek E. Relational regulation theory and peer support. *J Soc Pers Relat*. 2022;39(5):1325–46. doi:10.1177/02654075211066817
- [6] Zhao Y, Liu X, Wang B. Peer relationships and academic engagement in university students. *Learn Individ Differ*. 2023;102:102256. doi:10.1016/j.lindif.2023.102256
- [7] Grekul JL, Okros A. Peer support in stressful contexts: conceptual frameworks and implications for practice. *J Community Psychol*. 2021;49(3):609–24. doi:10.1002/jcop.22484
- [8] Standing O, Coghlan L, Sterling J, Hellier S. Developing peer support for adults bereaved through substance use: a qualitative study. *Health Soc Care Community*. 2018;26(6):887–96. doi:10.1111/hsc.12613
- [9] Cruchinho P, López-Franco MD, Capelas ML, Almeida S, Bennett PM, Miranda da Silva M, et al. Translation, cross-cultural adaptation, and validation of measurement instruments: a practical guideline for novice researchers. *J Multidiscip Healthc*. 2024;17:2701–28. doi:10.2147/JMDH.S419714
- [10] Pointon-Haas J, Waqar L, Upsher R, Foster J, Byrom N, Oates J. A systematic review of peer support interventions for student mental health and well-being in higher education. *BJPsych Open*. 2024;10(1):e12. doi:10.1192/bjo.2023.603
- [11] Worley JT, Meter DJ, Ramirez Hall A, Nishina A, Medina MA. Prospective associations between peer support, academic competence, and anxiety in college students. *Soc Psychol Educ*. 2023;26(4):1017–35. doi:10.1007/s11218-023-09781-3
- [12] Zhu Y, Lu J, Wang R, Ma S, Xu R. The relationship between perceived peer support and academic adjustment among higher vocational college students: the chain mediating effects of academic hope and professional identity. *Front Psychol*. 2025;16:1534883. doi:10.3389/fpsyg.2025.1534883
- [13] Cao Y, Yuan J, Luo L. The physical activity and social support scale: a translation and psychometric validation study in a Chinese college student sample. *Front Psychol*. 2024;15:1252561. doi:10.3389/fpsyg.2024.1252561
- [14] Novitasari, Pratama M. Hubungan antara dukungan teman sebaya dengan student engagement pada mahasiswa di Sumatera Barat. *Nusantara J Ilmu Pengetahuan Sos*. 2020;9(2):480–5.
- [15] Nurmalita T, Yoenanto NH, Nurdibyanandaru D. Pengaruh subjective well-being, peer support, dan efikasi diri terhadap student engagement siswa. *ANIMA Indones Psychol J*. 2021;36(1):36–68. doi:10.24123/aipj.v36i1.2854
- [16] Rahma U, Faizah F, Dara YP, Wafiyah N. Validasi instrumen psikologi dalam konteks budaya Indonesia: tinjauan literatur. *J Psikol Indones*. 2020;9(2):150–62.
- [17] Mostafaei Alaei M, Hosseinezhad H. The development and validation of Peer Support Questionnaire (PSQ). *Teach English* Second Lang Q. 2020;39(3.2):67–109. doi:10.22099/jtls.2021.38853.2906
- [18] Luo L, Yang X, Zeng X, Song N, Zhou L, Zhang L, et al. Evaluation of the validity of the physical exercise peer support questionnaire for college students. *Front Public Health*. 2022;10:871306. doi:10.3389/fpubh.2022.871306
- [19] Ma Q, Gallo JJ, Parisi JM, Joo JH. Development of the Mental Health Peer Support Questionnaire in colleges and vocational schools in Singapore. *Int J Ment Health Syst*. 2022;16(1):41. doi:10.1186/s13033-022-00555-6
- [20] Rahmanto SW. The psychometric properties of Interpersonal Support Evaluation List-Short Form (ISEL-16) on college students. *Humanit Indones Psychol J*. 2024;21(2):119–34. doi:10.26555/humanitas.v21i2.637
- [21] Hofstede G, Hofstede GJ, Minkov M. *Cultures and organizations: software of the mind*. 3rd ed. New York: McGraw-Hill; 2010.
- [22] Borsa JC, Damásio BF, Bandeira DR. Cross-cultural adaptation and validation of psychological instruments: some considerations. *Paidéia (Ribeirão Preto)*. 2012;22(53):423–32. doi:10.1590/S0103-863X2012000300014
- [23] Alkouradi SJK, Golparvar M, Shallal AA, Yousefi Z. The moderating role of peer support in the relationship between school bullying and anxiety in middle school students with social anxiety in Wasit, Iraq. *Int J Educ Stud*. 2025;8(3):1–9.
- [24] Riaz N, Hussain M, Lak TA, Fatima Z, Mobeen M. Emotional intelligence and peer support network as predictors of resilience toward social media-related vulnerability: evidence from youth in Punjab, Pakistan. *Quant J Soc Sci Humanit*. 2025;6(2):216–25. doi:10.55737/qjssh.vi-ii.25380
- [25] Shen H, et al. The impact of peer relationships and employment pressure on college students' mental health. *Front Psychol*. 2025. doi:10.3389/fpsyg.2025.1688537
- [26] Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct Equ Modeling*. 1999;6(1):1–55. doi:10.1080/10705519909540118
- [27] Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *J Mark Res*. 1981;18(1):39–50. doi:10.1177/002224378101800104
- [28] Dessauvague AS, Dang HM, Nguyen TAT, Groen G. Mental health of university students in Southeastern Asia: a systematic review. *Asia Pac J Public Health*. 2022;34(2-3):172–81. doi:10.1177/10105395211055545
- [29] Lu S, Hart LM, Jorm AF, Gregg K, Gross M, Mackinnon AJ, et al. Adolescent peer support for mental health problems: evaluation of the validity and reliability of the Mental Health Support Scale for Adolescents. *BMC Psychol*. 2023;11(1):198. doi:10.1186/s40359-023-01228-w
- [30] Bagdžiūnienė D, Žukauskaitė I, Bulotaitė L, Sargautytė R. Study and personal resources of university students' academic resilience and the relationship with positive psychological outcomes. *Front Psychol*. 2025;16:1517359. doi:10.3389/fpsyg.2025.1517359

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APPENDIX

Petunjuk :

Silakan lingkari kotak yang paling mencerminkan pendapat Anda tentang setiap pernyataan berikut :

1 = Sangat Tidak Setuju (STS)

2 = Tidak Setuju (TS)

3 = Netral (N)

4 = Setuju (S)

5 = Sangat Setuju (SS)

No	Pernyataan	STS	TS	N	S	SS
1.	Dukungan teman sebaya meningkatkan pengetahuan dan kinerja akademik saya.	1	2	3	4	5
2.	Dukungan teman sebaya membuat saya terlibat aktif dalam studi saya.	1	2	3	4	5
3.	Ketika saya menerima dukungan teman sebaya, saya dibekali dengan pengetahuan yang dibutuhkan untuk mengatasi tantangan akademik.	1	2	3	4	5
4.	Melalui dukungan dari teman sebaya saya, saya berpeluang untuk melanjutkan studi dan mencapai tujuan pendidikan saya.	1	2	3	4	5
5.	Dukungan teman sebaya dapat memperkaya pengetahuan tentang budaya.	1	2	3	4	5
6.	Dukungan teman sebaya dapat meningkatkan rasa percaya diri saya di dalam kelas.	1	2	3	4	5
7.	Dengan bantuan teman sekelas, saya merasa tidak perlu khawatir dengan prestasi akademik saya.	1	2	3	4	5
8.	Dengan dukungan teman sebaya, kepercayaan diri saya meningkat.	1	2	3	4	5
9.	Teman-teman sebaya saya membantu saya mengembangkan kecerdasan emosional dalam belajar.	1	2	3	4	5
10.	Teman-teman sekelas saya menawarkan sumber daya yang meningkatkan perhatian saya terhadap materi pembelajaran yang diberikan.	1	2	3	4	5
11.	Teman-teman sekelas sering kali menawarkan bantuan langsung yang membantu saya memperoleh hasil pembelajaran yang diinginkan.	1	2	3	4	5
12.	Ketika saya mendapatkan saran dari teman-teman saya, saya menjadi lebih siap dalam menggunakan beragam strategi pembelajaran.	1	2	3	4	5
13.	Masukan dari teman sebaya meningkatkan kerja sama antarpelajar untuk membangun suasana belajar yang positif.	1	2	3	4	5
14.	Masukan dari teman sebaya mendorong dan mempercepat pembelajaran.	1	2	3	4	5
15.	Masukan dari teman sebaya meningkatkan pemikiran kritis pelajar.	1	2	3	4	5
16.	Dukungan teman sebaya membantu meningkatkan hubungan saling belajar.	1	2	3	4	5
17.	Dukungan teman sebaya meningkatkan kesadaran saya untuk menjadi bagian dalam komunitas belajar.	1	2	3	4	5

18.	Dukungan teman sebaya membangun hubungan yang berdasarkan kepercayaan dan saling menghormati.	1	2	3	4	5
19.	Persahabatan dengan teman sekelas saya meningkatkan peluang saya untuk diterima oleh orang lain.	1	2	3	4	5
20.	Dukungan teman dapat menciptakan hubungan akrab saya dengan teman kuliah lainnya berdasarkan kualitas pendidikan.	1	2	3	4	5
21.	Dukungan teman sebaya dapat mengembangkan karakter akademik saya.	1	2	3	4	5
22.	Dukungan teman sebaya menciptakan sikap yang lebih positif terhadap bidang studi akademis saya dan apresiasi terhadap lingkungan universitas.	1	2	3	4	5