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Developing a cognitive-based module for problem-focused coping skills: a research and development feasibility study among university students

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ABSTRACT

University students encounter various academic and non-academic stressors that require effective coping strategies. This study aimed to develop and examine the feasibility of a cognitive approach-based problem-focused coping skill module grounded in Lazarus and Folkman's transactional model and Beck's cognitive model. A Research and Development design using the ADDIE model was employed. The module was evaluated through content-expert validation, design-expert validation, and field practicality testing, followed by a single-group pretest–posttest involving 60 university students. Content-expert validation yielded 96.7% (Aiken's V = 0.94–0.98), design-expert validation 89.3% (Aiken's V = 0.71–0.98), and field practicality 95.7%, all categorized as highly feasible. Descriptively, the proportion of students with high problem-focused coping increased from 35% to 80%, while high emotion-focused coping increased from 25% to 67%. No inferential statistical analysis was conducted, and the absence of a control group limits causal interpretation. The findings indicate that the module is feasible and practical and is associated with an increase in problem-focused coping. Its effectiveness in reducing academic stress should be examined in future controlled studies using validated stress measures.

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Introduction

Academic stress is commonly understood as an emotional response arising when academic demands such as examinations and time-constrained assignments are perceived to exceed an individual's coping resources. National and multi-country survey data have repeatedly indicated that a substantial proportion of university students report experiencing stress attributable to academic pressure, with stress levels ranging from moderate to severe across diverse institutional and cultural settings (Alkhawaldeh et al., 2023; AlHamlan et al., 2025; Oku et al., 2015; Soliman, 2014), and longitudinal data show that academic stress fluctuates across the academic year, rising sharply around examination periods (Barker et al., 2018). Sources of academic stress commonly identified in recent research include workload, examination pressure, time management demands, and the need to balance study with social or financial responsibilities (Islam & Rabbi, 2024). Beyond academic tasks, students also navigate social adjustment to peers from diverse backgrounds, participation in extracurricular activities, and, in many contexts, part-time work to support living expenses all of which can compound as additional stressors during the transition from secondary to higher education.

The consequences of unmanaged academic stress extend across emotional, physical, cognitive, and behavioral domains, including anxiety, fatigue, difficulty concentrating, and social withdrawal (Al-Desouki et al., 2024). Because students differ in how adaptively they respond to stressors, coping strategy has been identified as a key adaptive mechanism for managing academic pressure, and a recent scoping review of 165 international studies confirmed that coping-strategy research remains unevenly distributed across disciplines and world regions, pointing to a continued need for context-specific, applied coping interventions (Waterhouse & Samra, 2025). However, academic demands are not uniformly harmful. The challenge–hindrance framework distinguishes demands appraised as opportunities for growth from those appraised as obstacles, and among students, challenge stressors have been associated with greater motivation to learn, whereas hindrance stressors have been associated with lower motivation and poorer learning performance (LePine et al., 2004). This contrast implies that the same academic demand can lead to adaptive or maladaptive outcomes depending on how it is appraised, which is precisely the process that cognitive, problem-focused coping interventions seek to modify.

Lazarus and Folkman's (1984) transactional model of stress and coping provides the theoretical foundation for this study. According to this model, individuals engage in a cognitive appraisal process upon encountering a stressor: primary appraisal, in which the individual evaluates whether the stressor is threatening, and secondary appraisal, in which the individual evaluates the resources available to manage it. This appraisal process shapes the coping strategy adopted, which the model broadly categorizes into emotion-focused coping and problem-focused coping. A recent longitudinal cross-lagged panel network study among university students empirically supported the temporal ordering proposed by this model, showing that appraisal processes precede and predict subsequent coping and mental-health outcomes (Spătaru et al., 2024), lending continued contemporary support to the theoretical framework adopted here. Beck's cognitive model, whose core technique of cognitive restructuring has accumulated substantial meta-analytic support (Hofmann et al., 2012), complements this framework by proposing that modifying maladaptive thought patterns can, in turn, shift emotional and behavioral responses, a mechanism consistent with strengthening problem-focused coping through structured cognitive exercises. In the present study, the two models are operationalized jointly: Lazarus and Folkman's appraisal stages structure the sequence of module activities (identifying the stressor, appraising it as a threat or a challenge, and inventorying available resources), while Beck's cognitive restructuring provides the techniques used to examine and reframe maladaptive appraisals before students plan and carry out problem-solving steps. The study therefore applies and extends, rather than tests, the transactional model by translating its appraisal–coping sequence into a structured instructional product. Although problem-focused and emotion-focused coping are often contrasted, contemporary coping research treats them as complementary functions that are frequently used together within the same stressful encounter (Folkman & Moskowitz, 2004; Skinner et al., 2003); accordingly, the module aims to strengthen problem-focused coping without presupposing a decline in emotion-focused coping.

A growing body of research has examined the relationship between coping strategies and academic stress outcomes among university students. For example, prior work has linked coping strategy use to adaptive functioning under academic pressure (Mirza et al., 2023) and has evaluated psychological interventions such as expressive writing as a means of reducing academic stress (Nursolehah & Rahmiati, 2022). Several recent controlled studies have gone further by testing structured cognitive-behavioral interventions for academic and examination-related stress: a randomized pretest–posttest evaluation of a FEAR-model cognitive-behavioral intervention among Nigerian university students reported significant reductions in examination-induced stress scores across repeated measures (Agah et al., 2023); a CBT-based psychoeducation program was found to reduce university students' perceived stress and automatic negative thoughts while improving self-efficacy (Kaplan et al., 2023); and a positive-psychology-based group counseling intervention demonstrated a measurable effect on college students' psychological crisis indicators (Zhang et al., 2022). Complementary evidence from a stress-management pilot programme among Thai university students (Joompathong et al., 2022) and an online psychoeducational stress-management program for international students (Ahmad & Meriç, 2021) further supports the feasibility of structured, short-format coping interventions in higher-education settings. Digitally delivered interventions have also shown promise: a randomized controlled trial of a smartphone-based application reduced students' stress scores relative to a control condition (Hwang et al., 2022), and a more recent pre–post implementation study of a self-guided digital mental-health intervention documented measurable improvements in psychological well-being among university students using validated instruments and inferential statistical testing (Nosè et al., 2025). Notably, each of these studies incorporated either a control/comparison group, a validated stress or well-being instrument administered pre- and post-intervention, or formal inferential statistical testing (or a combination of these) methodological features that strengthen causal inference and that the present study, in its current form, does not yet include.

However, much of this literature remains either correlational in nature, limited to narrative literature synthesis, or focused on interventions delivered outside a systematic instructional-design framework, without

producing a structured, self-administered instructional product that translates coping theory directly into practice through a recognized development model. Instructional-design approaches such as the ADDIE model have been successfully applied to develop and validate expert-reviewed educational products in other domains for example, an ADDIE-based blended-learning design validated through expert review and practicality testing in technical and vocational education (Islam Shakeel et al., 2022), and an ADDIE-based smartphone application shown to improve users' digital literacy following expert and field validation (Rizal et al., 2021) demonstrating that this framework can reliably produce feasible, practical instructional products, though its application specifically to problem-focused coping skill modules for academic-stress contexts remains limited.

This gap points to the need for interventions that operationalize cognitive appraisal and problem-focused coping theory into concrete, systematically developed instructional materials. Whereas Agah et al. (2023) and Kaplan et al. (2023) evaluated facilitator-led CBT programs, and Hwang et al. (2022) and Nosè et al. (2025) tested digital applications, none of these studies documented the systematic development and expert validation of a self-administered coping module; similarly, the 165 studies mapped by Waterhouse and Samra (2025) primarily described which coping strategies students use rather than evaluating instructional products designed to teach them. The novelty of the present study therefore lies in translating the transactional model and cognitive restructuring into an ADDIE-developed, expert-validated module for Indonesian university students. The study was conducted among [N = 60] [program/faculty] students at [institution, city, Indonesia], a population selected because [rationale, e.g., no structured coping-skills resource was available in the institution's counseling services]. The present study addresses this need by developing a cognitive approach-based problem-focused coping skill module using the ADDIE instructional design model, and by evaluating its feasibility, practicality, and preliminary association with students' coping-category shifts.

This study contributes methodologically by demonstrating a structured, expert-validated approach to translating stress-coping theory into an applied instructional product, and practically by providing higher-education counselors and student-support services with a concrete tool for coping-skills training. In the terminology of Bowen et al. (2009), the study is therefore a feasibility study: it asks whether the module is acceptable, practical, and promising enough to justify a subsequent efficacy trial. At the same time, this study does not claim to demonstrate a direct, statistically confirmed reduction in academic stress; the data available support conclusions about module feasibility, practicality, and descriptive shifts in coping-category proportions, and these boundaries are made explicit throughout this manuscript.

Method

Research Design

This study used a Research and Development (R&D) design, following the ADDIE model (Molenda, 2003) comprising five stages: Analyze, Design, Development, Implementation, and Evaluation. The ADDIE framework was selected because it provides a structured, iterative pathway for translating theoretical constructs (cognitive appraisal and problem-focused coping) into a validated instructional product suitable for practical use in student counseling settings. Because the implementation stage used a one-group pretest–posttest design, the study is positioned as a feasibility study, an approach appropriate for determining whether an intervention is acceptable and practical enough to warrant efficacy testing (Bowen et al., 2009), rather than as an efficacy trial.

Analyze. The needs analysis was conducted through [procedure, e.g., a preliminary survey of N students and interviews with N counselors] at [institution] in [month, year]. It identified [main findings, e.g., the dominant sources of academic stress and the proportion of students in the low or moderate coping categories] and showed that existing counseling services did not provide [gap, e.g., a structured self-help coping module]. These findings determined the content priorities of the module.

Design. The module was designed around cognitive appraisal and problem-focused coping principles, structured into a reference framework, an introduction, core module content, and an evaluation/monitoring component (content areas validated in Table 2).

Development. The module was drafted and submitted for expert review; based on expert feedback (e.g., simplifying theoretical sections for material content, and improving image layout for design), revisions were made prior to field use.

Implementation. The module was implemented over [number] sessions of [duration] minutes each, delivered [individually / in groups of n] by [facilitator, e.g., a certified counselor (M.Pd., Kons.)] who had received [training or briefing] on the module. The pretest was administered [timing] before the first session and the posttest [timing] after the final session.

Evaluation. Product evaluation was conducted through content-expert validation, design-expert validation, field practicality testing, and a pretest–posttest administration among student participants.

Participants
The accessible population comprised [number] students enrolled in [program/faculty] at [institution] in the [semester, academic year]. From this population, 60 students were selected using [sampling technique, e.g., purposive sampling] based on the following inclusion criteria: [e.g., active undergraduate status, willingness to participate, and a pretest coping score in the low or moderate category]; exclusion criteria were [e.g., concurrent participation in another psychological intervention]. Participants comprised [n] men and [n] women aged [range] years (M = [value], SD = [value]) in semesters [range]. The sample size was not determined by a power analysis; consistent with recommendations for feasibility studies, it was intended to estimate acceptability and practicality rather than to test hypotheses (Bowen et al., 2009).

Development Procedure
Product design, construction, and verification followed a sequence comprising: (1) identification of the problem space, (2) data collection technique, (3) product design, (4) expert verification, (5) design revision, (6) product field testing, and (7) product revision (Setyosari, 2013).

Instruments
Expert validation used a 5-point rating scale (1 = not feasible, 2 = less feasible, 3 = fairly feasible, 4 = feasible, 5 = highly feasible), interpreted using the following feasibility criteria: 81–100% = Highly Feasible; 61–80% = Feasible; 41–60% = Fairly Feasible; 21–40% = Less Feasible; 1–20% = Not Feasible. The content-feasibility instrument comprised 22 items across four indicator domains (reference framework, introduction, book/module content, and evaluation and monitoring), rated by three validators. The design-feasibility instrument comprised 28 items across eight indicator domains (cover design, font type and size, color scheme, punctuation, images, white space/spacing, consistency, and overall book quality), also rated by three validators. Feasibility percentage was calculated as (actual score ÷ ideal score) × 100%. Agreement among the three validators was examined with the intraclass correlation coefficient (two-way random effects, absolute agreement, average measures; Shrout & Fleiss, 1979), interpreted according to Koo and Li (2016), and aspect-level content validity was summarized with Aiken's V (Aiken, 1985), calculated from the mean item rating within each aspect.

Students' coping was measured at pretest and posttest using [instrument name], [developed by the authors / adapted from (source), e.g., the Brief COPE (Carver, 1997)], which consists of [n] items rated on a [n]-point scale and yields separate problem-focused and emotion-focused coping scores. In the present sample, internal consistency was Cronbach's α = [value] for the problem-focused subscale and α = [value] for the emotion-focused subscale. Scores were classified as high, moderate, or low using [criterion, e.g., the mean ± 1 SD]. No standalone academic-stress instrument was administered; academic stress is therefore not treated as an outcome in this study.

Data Analysis
Data were analyzed using descriptive quantitative statistics (percentages, feasibility categorization) and qualitative analysis of expert and student feedback. No inferential statistical test (e.g., paired-samples t-test, Wilcoxon signed-rank test) was applied to the pretest–posttest coping-category data, because only category-level frequencies were available; consistent with the feasibility aims of the study, observed changes are reported descriptively rather than as statistically significant effects.

Ethical Considerations
The study protocol was approved by [ethics committee] (approval no. [number], dated [date]). All participants were informed of the aims and procedures of the study, participated voluntarily, could withdraw at any time without academic consequences, and provided written informed consent. Data were anonymized with participant codes and stored securely, with access restricted to the research team.

Results and Discussions

The module was validated by three content and design experts: Satya Anggi Permana, S.Pd.I., M.Pd. (Head of the Guidance and Counseling Study Program, STKIP Muhammadiyah Sungai Penuh), Dr. Julia Eva Putri, M.Pd., Kons., and [name, degree, and affiliation of the third validator]. Because Dr. Julia Eva Putri is also a co-author of this study, her dual role constitutes a potential conflict of interest, which is disclosed in the Declarations section and examined below. Content-expert validation yielded a total score of 319 out of an ideal 330 (96.7%), categorized as "Highly Feasible" (Table 1). Design-expert validation yielded a total score of 375 out of an ideal 420 (89.3%), also categorized as "Highly Feasible" (Table 2). Aspect-level Aiken's V ranged from 0.94 to 0.98 for content and from 0.71 (punctuation) to 0.98 (consistency) for design. Inter-rater agreement, however, was

poor for content ratings (ICC = 0.26) and moderate for design ratings (ICC = 0.66; Koo & Li, 2016). The low content ICC partly reflects a ceiling effect: all aspect-level mean item ratings fell between 4.67 and 5.00 on the 5-point scale, leaving little between-aspect variance from which agreement could be estimated, so this coefficient should be interpreted cautiously.

Clarification of the module's target domain. The validation and practicality instruments contained several items worded for a sport context (e.g., "the role of psychology in sport," "emotion regulation in competition," "athletes' mental health," "the role of team captains," and "psychological recovery after injury"), reflecting the working title of the e-book draft, "Problem Focused Coping Skill: Methods and Psychological Skills Training in Sport." [AUTHORS: keep ONE of the following two statements and delete the other.] (A) The module was developed for [sport-science students / student-athletes], whose academic stress is compounded by training and competition demands; the title, abstract, and introduction specify this population accordingly. (B) The sport-related items were carried over from an earlier template and do not correspond to the final module, which addresses general academic stress; the affected items were [revised/removed] and re-rated by the validators on [date], and the percentages in Tables 1 and 3 refer to the revised instruments.

Table 1. Content-Expert Feasibility Validation

Aspect	Expert A	Expert B	Expert C	Total Score	Ideal Score	%	Category
Reference framework	20	19	20	59	60	98.3%	Highly Feasible
Introduction	15	14	14	43	45	95.6%	Highly Feasible
Module content	54	52	54	160	165	97.0%	Highly Feasible
Evaluation and monitoring	19	19	19	57	60	95.0%	Highly Feasible
Total				**319**	**330**	**96.7%**	**Highly Feasible**

Table 2. Design and Display Expert Feasibility Validation

Aspect	Expert A	Expert B	Expert C	Total Score	Ideal Score	%	Category
Cover design	20	17	20	57	60	95.0%	Highly Feasible
Font type and size	13	15	13	41	45	91.1%	Highly Feasible
Color scheme	14	15	14	43	45	95.6%	Highly Feasible
Punctuation used	16	14	16	46	60	76.7%	Feasible
Images used	14	10	14	38	45	84.4%	Highly Feasible
White space/spacing	16	17	17	50	60	83.3%	Highly Feasible
Consistency	20	19	20	59	60	98.3%	Highly Feasible
Module quality	14	13	14	41	45	91.1%	Highly Feasible
Total				**375**	**420**	**89.3%**	**Highly Feasible**

Practicality testing conducted by lecturer/practitioner evaluators yielded a total score of 201 out of an ideal 210 (95.7%), categorized as "Highly Feasible" (Table 3). Agreement among these evaluators was low (ICC = 0.33), again reflecting a ceiling effect (aspect-level mean item ratings between 4.50 and 5.00). Practicality was rated by lecturers and practitioners only; ratings from student end-users were not collected and are recommended for subsequent trials.

Table 3. Practicality Test Results (Lecturer/Practitioner Evaluation)

Aspect	Expert A	Expert B	Expert C	Total Score	Ideal Score	%	Category
Planning	19	20	19	58	60	96.7%	Highly Feasible
Implementation	29	29	29	87	90	96.7%	Highly Feasible
Evaluation	19	18	19	56	60	93.3%	Highly Feasible
Total				**201**	**210**	**95.7%**	**Highly Feasible**

Table 4 presents the distribution of students across coping categories before and after module implementation. Because academic stress was not measured as a separate outcome, the following results describe shifts in emotion-focused and problem-focused coping categories only.

Table 4. Pretest–Posttest Distribution of Coping Categories (N = 60)

Variable	Category	Pretest n	Pretest %	Posttest n	Posttest %
Emotion-Focused Coping	High	15	25%	40	67%

Variable	Category	Pretest n	Pretest %	Posttest n	Posttest %
	Moderate	42	70%	18	30%
	Low	3	5%	2	3%
	Total	**60**	**100%**	**60**	**100%**
Problem-Focused Coping	High	21	35%	48	80%
	Moderate	32	53%	10	17%
	Low	7	12%	2	3%
	Total	**60**	**100%**	**60**	**100%**

Descriptively, the proportion of students in the "high" problem-focused coping category increased from 35% at pretest to 80% at posttest, while the "high" emotion-focused coping category also increased, from 25% to 67%. Because individual-level scores and an inferential statistical test are not available in the present dataset, these shifts should be interpreted as descriptive trends rather than statistically confirmed effects.

This study found that a cognitively grounded, ADDIE-developed problem-focused coping module was judged highly feasible by content experts (96.7%) and design experts (89.3%), and highly practical by lecturer/practitioner evaluators (95.7%). Descriptively, students' representation in the "high" problem-focused coping category rose from 35% to 80% between pretest and posttest.

The high expert-validation scores suggest that the module's content, structure, and visual design were judged appropriate for its intended purpose by qualified evaluators. The descriptive increase in the "high" problem-focused coping category is consistent, in principle, with cognitive appraisal theory (Lazarus & Folkman, 1984): a structured module emphasizing problem identification, resource evaluation, and systematic problem-solving may plausibly support a shift toward more active engagement with academic stressors, and is broadly compatible with the premise of Beck's cognitive model, supported meta-analytically (Hofmann et al., 2012), that structured cognitive exercises can support behavioral change. It is important to distinguish this interpretation a theoretically plausible mechanism from a directly demonstrated causal effect: the present design (single-group, no inferential test, no direct stress measure) cannot establish that the module *caused* the observed coping-category shift, nor that academic stress itself declined.

The concurrent increase in the "high" emotion-focused coping category (from 25% to 67%) may appear to contradict the module's problem-focused emphasis, but it is consistent with the transactional model, in which problem-focused and emotion-focused coping are complementary functions that typically co-occur and facilitate one another within the same stressful encounter (Folkman & Moskowitz, 2004; Lazarus, 1993). To the extent that the module's cognitive components involve recognizing stress-related emotions, reappraising the meaning of a stressor, and reframing maladaptive thoughts, they engage strategies that hierarchical models of coping classify as emotion-regulating (Carver, 1997; Skinner et al., 2003); a rise in emotion-focused coping is therefore a plausible by-product of a cognitively grounded module rather than evidence against it. Because emotion-focused coping includes both adaptive strategies (e.g., positive reappraisal, acceptance) and less adaptive ones (e.g., denial, venting), and because the category-level data do not distinguish between these subtypes, this interpretation remains provisional.

These findings are broadly consistent with Mirza et al. (2023), who argued that coping strategies play an important role in students' adaptive capacity under academic pressure, though that work remained at the level of literature review rather than producing an applied product. The present study extends this line of work by producing and validating a concrete, self-administrable module. Relatedly, Nursolehah and Rahmiati (2022) found that a psychological intervention (expressive writing) was associated with reduced academic stress; the present study differs in intervention type (a structured cognitive/problem-focused coping module) and, notably, did not include a directly comparable academic-stress outcome measure, limiting direct comparability of effect claims between the two studies.

The present feasibility- and practicality-focused evidence base is comparatively modest set against recent controlled evaluations of structured psychological interventions for academic stress. Agah et al. (2023), for instance, used a randomized pretest–posttest design with a waitlist control group to demonstrate statistically significant reductions in examination-induced stress following a FEAR-model cognitive-behavioral intervention, and Kaplan et al. (2023) similarly reported significant reductions in perceived stress and automatic negative thoughts following a CBT-based psychoeducation program. Digitally delivered interventions have shown comparable rigor: Hwang et al. (2022) demonstrated stress reduction using a randomized controlled smartphone-app trial, and Nosè et al. (2025) documented improvements in psychological well-being using validated pre–post instruments analyzed with inferential statistics (Wilcoxon signed-rank tests). Against this backdrop, the present study's descriptive, single-group design represents an earlier stage of evidence generation appropriate for establishing content and design feasibility, but not yet sufficient to support causal or comparative claims of the kind reported in these more methodologically advanced studies. This comparison reinforces, rather

than undermines, the value of the present study as a feasibility-stage contribution that should be followed by a more rigorous effectiveness trial.

The choice of the ADDIE model as a development framework is also consistent with recent instructional-design literature: Islam Shakeel et al. (2022) and Rizal et al. (2021) both reported that ADDIE-based products achieved high expert-validation and practicality scores in other educational domains, a pattern that mirrors the present module's validation results (96.7%, 89.3%, and 95.7%) and lends methodological, rather than substantive, support to the development approach used here.

These validation results should also be read against established standards for content validation. Percentage-of-maximum feasibility scores, although common in R&D studies, summarize the level of expert endorsement but not the degree of agreement among experts or the relevance of individual items; methodological guidance therefore recommends item-level content validity indices or Aiken's V together with an index of rater agreement (Aiken, 1985; Polit et al., 2007). Judged by these criteria, the present evidence is mixed: aspect-level Aiken's V values were high (0.71–0.98), but inter-rater agreement was poor for content ratings and moderate for design ratings. In addition, including a co-author among the three validators may have inflated feasibility scores, because a validator involved in designing the module is unlikely to be blind to its intended strengths. Expert B gave the lowest totals for both content (104 of 110) and design (120 of 140), whereas Experts A and C gave nearly identical near-ceiling ratings (content 108 and 107; design 127 and 128); [AUTHORS: state which column corresponds to the co-author validator and whether her ratings exceeded those of the independent validators]. Re-validation by fully independent experts is therefore recommended before the module is adopted more widely.

This study offers a concrete translation of cognitive appraisal theory and problem-focused coping constructs into a validated instructional product, illustrating one applied pathway from stress-coping theory to practice within an Indonesian higher-education setting. This translation is consistent with, and extends, recent longitudinal evidence supporting the temporal appraisal-coping sequence proposed by Lazarus and Folkman (1984) in student populations (Spătaru et al., 2024).

For university counselors, lecturers, and student support services, the validated module may serve as a supplementary self-help or guided-counseling resource for building students' problem-solving orientation toward academic demands, in a manner conceptually similar to other short-format, self-administered coping programs evaluated in recent literature (Ahmad & Meriç, 2021; Joompathong et al., 2022). Given the absence of a direct academic-stress outcome measure, institutions adopting the module should consider it a coping-skills training resource rather than a demonstrated stress-reduction intervention until further evidence is available.

This study has several limitations. First, the single-group pretest–posttest design without a control or comparison group limits causal inference; in particular, maturation, history (e.g., changes in academic workload across the semester), testing effects from repeated administration of the coping instrument, and regression toward the mean among students with initially low or moderate scores cannot be ruled out as alternative explanations for the observed shifts (Knapp, 2016) unlike, for example, the randomized or controlled designs used by Agah et al. (2023), Kaplan et al. (2023), and Hwang et al. (2022) in related work. Second, academic stress itself was not measured as a standalone pre–post outcome, precluding direct evidence for the study's central claim regarding stress reduction. Third, no inferential statistical test, effect size, or confidence interval was computed on the available data. Fourth, coping outcomes were analyzed only at the category level, which discards within-category change and reduces sensitivity to smaller improvements. Fifth, one module validator held a dual role as co-author, introducing a potential conflict of interest that, although now disclosed, may have inflated feasibility ratings; inter-rater agreement was also poor to moderate. Sixth, findings are based on a small, single-institution sample (N = 60) drawn through [sampling technique] from a single program at [institution]; the findings can therefore be generalized, at most, to [population description] and should not be extended to students in other disciplines, institutions, or cultural settings without replication.

Future studies should incorporate a validated academic-stress instrument administered at pretest and posttest, a control or comparison group (e.g., a randomized or quasi-experimental design where feasible), larger and more diverse samples across institutions, re-validation by fully independent experts using item-level content validity indices and inter-rater reliability coefficients, longer follow-up periods, and appropriate inferential statistical analysis with effect sizes, following the methodological example set by recent controlled trials of academic-stress interventions (Agah et al., 2023; Hwang et al., 2022; Nosè et al., 2025). Comparative studies against alternative interventions (e.g., expressive writing, mindfulness-based programs, or digitally delivered self-help modules) would also help clarify the module's relative value. This R&D study should not be recharacterized as a randomized controlled trial, as no randomization was conducted.

Conclusions

This feasibility study developed a cognitive approach-based problem-focused coping module using the ADDIE model. The module was judged highly feasible by content and design experts (96.7% and 89.3%; aspect-level Aiken's V = 0.71–0.98) and highly practical by lecturer evaluators (95.7%), although inter-rater agreement was poor to moderate (ICC = 0.26–0.66) and one validator was a co-author. A descriptive increase in the "high" problem-focused coping category was observed from pretest to posttest; because the design had no control group and no inferential testing, this shift cannot be attributed to the module rather than to maturation, history, testing, or regression effects, and it applies only to [population] at [institution]. The study therefore establishes the feasibility of the module, not its efficacy. Its effect on academic stress should be tested in a randomized or quasi-experimental trial that uses a validated academic-stress measure, independent validators, and inferential analysis.

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