

Peer Counseling Based on Mindful Learning to Reduce Students' Academic Anxiety in Border Areas: A Community Service Approach

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ABSTRACT

This community service program aimed to reduce students' academic anxiety through peer counseling based on mindful learning at Madrasah Aliyah Al Ikhlas Nunukan, North Kalimantan. A participatory approach was employed, including socialization, training, implementation, mentoring, and evaluation stages. Selected students were trained as peer counselors using basic counseling skills integrated with mindful learning techniques such as mindful breathing, focused attention, and acceptance strategies. The results indicated a significant improvement in students' understanding of academic anxiety and their ability to manage stress, as evidenced by pre- and post-test comparisons. Additionally, a Peer Counselor Mindful Learning community was successfully established as a sustainable support system. These findings suggest that integrating peer counseling with mindful learning is an effective and contextually relevant strategy for enhancing students' psychological well-being in resource-limited areas.

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INTRODUCTION

Academic anxiety is a psychological condition characterized by excessive worry, fear of failure, and tension related to academic demands (Zhang et al., 2025). Increasing academic standards and performance pressure have made academic anxiety a growing concern among students. Previous studies indicate that academic anxiety negatively affects learning concentration, motivation, academic performance, and overall psychological well-being (Caviola et al., 2022). In severe cases, prolonged anxiety may reduce students' quality of life and increase avoidance behaviors toward academic tasks.

This problem is more pronounced in border and disadvantaged areas (3T regions), including Nunukan Regency, North Kalimantan, which borders Malaysia. Limited access to counseling services, socio-economic pressures, and inadequate educational facilities exacerbate students' vulnerability to academic anxiety. Many students are required to assist their families economically, creating a dual burden between academic responsibilities and family obligations. Preliminary assessments conducted by the PKM team in 2024 revealed moderate to high levels of academic anxiety among students at MA Al Ikhlas Nunukan, manifested through fear of examinations, low self-confidence, and difficulty concentrating.

Li et al. (2023, *Frontiers in Psychology*) conducted a meta-analysis of 11 RCTs in Chinese college students and concluded that mindfulness-based interventions (MBIs) have a positive effect on reducing anxiety. Ma et al. (2022) more specifically compared ACT, MBSR, and MBCT in college students (19 studies, 2,716 participants) and found significant effects for anxiety and depression symptoms, although no superiority over active controls.

Cultural factors also contribute to the issue. Strong collectivist values and stigma toward psychological problems often discourage students from openly expressing academic difficulties. Meanwhile, school counseling services have not functioned optimally due to limited human resources. These conditions highlight the need for an alternative, school-based psychological support model that is accessible, acceptable, and sustainable.

Mindful learning offers a relevant pedagogical approach by encouraging students to be fully present, aware, and accepting during the learning process. By emphasizing awareness, attention, and acceptance, mindful learning helps students manage anxiety, normalize mistakes, and focus on learning processes rather than outcomes (Kabat-Zinn, 2003; Langer, 1997). In addition, peer counseling provides emotional closeness and trust that facilitate openness among students. Integrating mindful learning with peer counseling is therefore expected to strengthen internal school support systems, particularly in areas with limited professional counseling resources (Irandia et al., 2022).

This community service program aims to (1) enhance students' understanding and management of academic anxiety, (2) equip selected students with basic peer counseling skills based on mindful learning, and (3) establish a sustainable Peer Counselor Mindful Learning community at the partner school. The program aligns with the Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being) and Goal 4 (Quality Education), as well as national policies on strengthening human resources in border regions. However, previous studies have largely examined mindfulness or peer counseling separately, with limited attention to their integration in community service programs, particularly in border and disadvantaged regions. Therefore, this study offers a novel approach by combining mindful learning with peer counseling as a contextual and sustainable intervention model. One study that directly combined the two was Rodriguez et al. (2020), an RCT in 54 Chinese students from 36 universities. They compared an online mindfulness intervention alone (MIND) versus online

mindfulness plus peer counselor support (MIND+). Peer counselors with no prior formal mental health training were trained for 1 day and provided 6 short sessions per week. The results: the MIND+ group showed lower attrition (59% vs. 26% post-test completion), higher adherence (73% vs. 51% course completion), and greater improvements in daily stress and depression. This provides preliminary evidence that the combination of mindfulness and peer counselor support can be mutually reinforcing.

METHOD

The program employed a participatory community service approach involving teachers, students, and school management. The implementation stages included socialization, training, technology application, mentoring and evaluation, and program sustainability.

- Socialization

The PKM team coordinated with school stakeholders to identify priority problems and agree on program implementation. Socialization activities introduced the concept of academic anxiety, mindful learning, and peer counseling to teachers and students. The school prepared facilities and supported participant mobilization.

- Training

Training focused on selected students identified as potential peer counselors. Materials included understanding academic anxiety, basic peer counseling skills (empathy, active listening, and confidentiality), and mindful learning techniques such as mindful breathing, focused attention, and reflective practices. Interactive methods, role-playing, and group discussions were used to enhance skill acquisition.

- Application of Technology and Knowledge

Technology supported the program through online questionnaires, digital learning materials, and communication platforms such as WhatsApp groups for peer counselor coordination. Simple mindfulness applications and digital reflection forms were introduced to facilitate continuous practice.

- Mentoring and Evaluation

Mentoring was conducted collaboratively by the PKM team and school counselors through supervision meetings, reflective discussions, and observation of peer counseling sessions. Evaluation employed pre-test and post-test measures of academic anxiety, observation checklists, and participant feedback to assess program effectiveness.

- Sustainability

Program sustainability was ensured by establishing a Peer Counselor Mindful Learning community integrated into school counseling activities. Annual regeneration of peer counselors, continued guidance from school counselors, and documented standard operating procedures support long-term implementation.

This study employed a pre-experimental design with a pre-test and post-test approach. Ten students were selected through purposive sampling. Data were collected using an academic anxiety scale, an observation checklist, and a reflective journal. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were analyzed through thematic analysis.

RESULTS AND DISCUSSION

Improvement of Students' Understanding of Academic Anxiety

The results of the community service program indicate a significant improvement in students' understanding of academic anxiety and its psychological mechanisms. Prior to the intervention, many students perceived anxiety merely as fear before examinations or worry about grades, without understanding its cognitive, emotional, and physiological components. This finding is consistent with previous studies showing that students often lack adequate literacy regarding academic anxiety, particularly in marginalized educational contexts (Zhang et al., 2025; Caviola et al., 2022).

After participating in the socialization and training sessions, students demonstrated better conceptual understanding of academic anxiety, including its causes, manifestations, and potential impacts on learning performance and well-being. Students were able to identify personal anxiety triggers such as fear of failure, excessive academic demands, and negative self-evaluation. In line with Heng et al. (2022), increased awareness is a crucial first step in reducing maladaptive anxiety responses and promoting healthier coping strategies.

Effectiveness of Mindful Learning in Managing Academic Anxiety

Mindful learning practices introduced during the program—such as mindful breathing, focused attention during learning tasks, and non-judgmental acceptance of mistakes—proved effective in helping students regulate emotional responses to academic stress. Students reported feeling calmer, more focused, and less overwhelmed during learning activities and evaluations. These outcomes align with the theoretical framework of mindfulness, which emphasizes present-moment awareness and acceptance as mechanisms for reducing anxiety (Kabat-Zinn, 2003; Reyes, 2022).

Consistent with Langer's (1997) concept of mindful learning, students gradually shifted from outcome-oriented learning to process-oriented engagement. This shift reduced fear of making mistakes and encouraged cognitive flexibility. Empirical evidence supports this finding, as mindful learning has been shown to improve psychological well-being and reduce academic-related stress among students (Wang et al., 2023).

Role of Peer Counselors as a School-Based Support System

The establishment of peer counselors played a critical role in strengthening the school's internal support system. Peer counselors provided emotional support, motivation, and informal guidance to fellow students experiencing academic anxiety. Due to shared experiences and social proximity, students were more open in expressing concerns to peers than to teachers or counselors, confirming findings from previous peer counseling research (Irandi et al., 2022; Qoyyimah et al., 2021).

Peer counselors trained with mindful learning principles demonstrated improved empathy, active listening, and reflective skills. These competencies enabled them to facilitate supportive conversations without judgment, which is essential in anxiety reduction. This result supports social support theory, which posits that perceived emotional support significantly buffers the negative effects of stress and anxiety on mental health outcomes (Hu et al., 2023).

Sustainability and Institutional Impact

From an institutional perspective, the formation of the Peer Counselor Mindful Learning community represents a sustainable intervention model for schools in border and resource-limited areas. The community functions as an extension of formal counseling services, addressing limitations in professional human resources. Integration of the program into school counseling activities enhances its long-term viability.

The results of this program corroborate previous findings from the PKM team's earlier research, which demonstrated that mindfulness-based interventions effectively reduce anxiety and improve emotional regulation in educational settings (Cahyono et al., 2025). By combining mindful learning with peer counseling, this program offers an evidence-based and contextually relevant model for improving students' academic well-being in 3T regions. Quantitative reflection data show that 65% of participants achieved a high level of understanding regarding peers, 25% achieved a moderate level, and 10% achieved a low level. This indicates that most students were able to understand and perform the role of peer counselors during the workshop.

CONCLUSION

The community service program of peer counselor mentoring based on mindful learning effectively addressed academic anxiety among students at MA Al Ikhlas Nunukan. The program improved students' psychological awareness, strengthened peer support systems, and established a sustainable counseling community within the school. This model is recommended for replication in other border and disadvantaged regions to support students' mental well-being and learning resilience. Despite showing positive results, this study was limited by its small sample size and lack of a control group. Future research should use an experimental design with a larger sample size to validate the effectiveness of this model across educational contexts.

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