

Emotional Experiences and Coping Strategies of Medical Students during the Transition to Clinical Training

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Abstract

Introduction: The transition from preclinical to clinical training is a pivotal phase for medical students, involving a shift from classroom learning to hands-on patient care. This period poses significant challenges often leading to heightened stress and emotional strain. This study aims to explore the emotional experiences and coping strategies of medical students to enhance their navigation through this critical period.

Methods: A cross-sectional study was conducted among 4th year medical students at the Surin Hospital, Thailand. The study utilized open-ended questions and in-depth interviews to delve into their experiences. Descriptive and correlation statistics were applied to analyze the data.

Results: Out of 28 4th year medical students surveyed, an impressive 96.4% responded. During the transitional phase, they reported an average stress score of 6.61 (SD=1.53), indicating a moderate level of stress. Interestingly, stress levels did not significantly correlate with their preclinical academic performance ($r(25)=-0.282$, $p=0.154$). In addition to culture shock and learning shock, the attitude of the medical staff emerged as a significant stress factor. Furthermore, two-thirds of them expressed a desire for improved work-life balance. Students demonstrated resilience by employing various coping mechanisms such as expressing their feelings forcefully, entertainment, and seeking support primarily from friends and family, with only 11% feeling the need to consult staff members.

Conclusion: The transition from preclinical to clinical training is a significant stressor for medical students. Implementing robust support systems, including enhanced mentoring programs and stress management workshops, is crucial to facilitate smoother transitions and improve well-being.

Keywords: Transitional crisis, Medical student, Culture shock, Learning shock

Introduction

The transition from preclinical to clinical training represents a significant milestone for medical students, marked by a shift from classroom learning to hands-on clinical experience.

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During this critical phase, students must assimilate vast amounts of knowledge, develop clinical skills, and manage the high-pressure demands of patient care within a multidisciplinary healthcare team (Teunissen *et al.*, 2011). Balancing academic obligations with clinical duties, adapting to new social dynamics, and meeting the high expectations of patients, peers, and mentors can be overwhelming. This transitional crisis often leads to increased stress, anxiety, and feelings of inadequacy, potentially impacting students' mental health and academic performance (Dyrbye *et al.*, 2006, Prince *et al.*, 2005).



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Understanding the emotional experiences and coping strategies of medical students during this period is crucial for developing effective support systems. By identifying specific stressors and coping methods (Wolf et al., 1988), educators and administrators can implement targeted interventions to enhance student well-being and academic success (Slavin et al., 2014).

This study explores the emotional landscape of 4th year medical students at the Surin Hospital in Thailand as they transition from preclinical to clinical training. The findings will provide valuable insights into the challenges faced by medical students and underscore the importance of robust support structures to facilitate a smoother transition during this critical phase of their medical education.

Methods

Study Design and Participants

A cross-sectional study was conducted among 4th year medical students from the academic year 2024 at Surin Hospital in Thailand. The target population included all 4th year medical students enrolled during the study period. The inclusion criteria were: (1) being a 4th year medical student at Surin Hospital, and (2) willingness to participate in the study. A total of 28 students met these criteria and were invited to participate.

Our research methodology incorporated a single point of assessment, providing a snapshot of preferences within this distinct demographic. Ethical approval was obtained from the Ethics Committee of Surin Hospital. Participants were assured of the confidentiality and anonymity of their responses, and they had the right to withdraw from the study at any time without any consequences.

Outcomes

This study aimed to explore the emotional experiences and coping strategies of 4th year medical students at Surin Hospital, Thailand, as they transitioned from preclinical to clinical

training. The objectives were to assess and quantify the levels of stress experienced across different clinical rotations, identify key stressors, explore coping mechanisms used by students, and provide insights for developing targeted support systems to enhance their well-being and academic success.

Definitions

In this study, transitional crisis refers to the critical adjustment period experienced by 4th year medical students as they transition from preclinical to clinical training (Malau-Aduli, et al., 2020). Culture shock describes the psychological disorientation and adjustment difficulties medical students' face when transitioning to the clinical environment (Asal, et al., 2025). Learning shock denotes the cognitive and academic challenges encountered by medical students as they move from theoretical classroom learning to practical clinical application (Godefrooij, et al., 2010).

Assessment, Data Collection, and Statistics Analysis

Data were collected using a mixed-methods approach, combining quantitative and qualitative techniques. Quantitative data included measuring stress levels using a self-reported 1–10 rating scale and categorizing scores into three severity groups—1–3 = mild, 4–7 = moderate, and 8–10 = severe stress levels. Students rated their overall stress levels and specific stress levels during different clinical rotations. Qualitative data collection involved open-ended questions and in-depth interviews. Descriptive statistics, such as means and standard deviations, were calculated for stress levels and coping mechanisms. Spearman's Rank correlation coefficient analysis was conducted to explore the relationship between stress levels and preclinical academic performance. Transcripts from the open-ended questions and in-depth interviews were analyzed using thematic analysis to identify common themes and patterns.

Results

Participant Demographics and Stress Levels

In the academic year 2024, Surin Hospital enlisted twenty eight (28) 4th year medical students as participants in our study, yielding a robust response from 27 individuals, reflecting a response rate of 96.4%. Notably, 21 respondents were female (77.8%), while 6 were male (22.2%).

The average stress score reported during the transitional phase was 6.61 (SD=1.53), indicating a moderate level of stress. Notably, stress levels varied across different clinical rotations, with students reporting higher stress during ward rounds in internal medicine (average score of 7.19) compared to surgery (average score of 6.07) and the full distribution of stress scores for all participants is shown in figure 1.

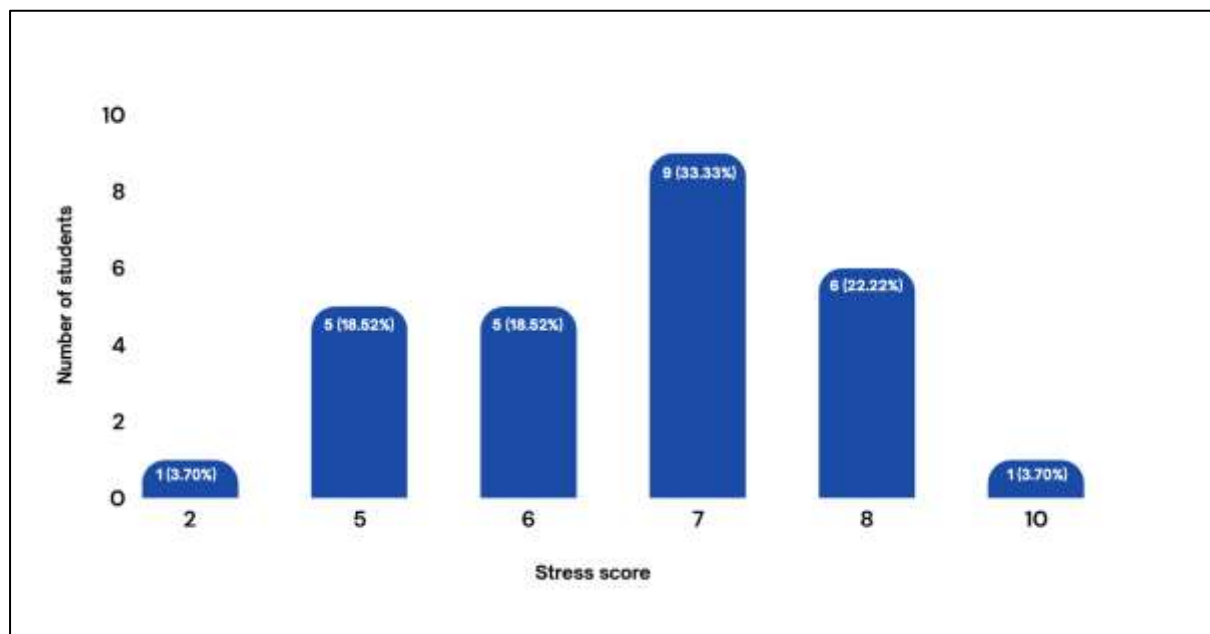


Figure 1: The distribution of stress score of all participants

Correlation Analysis

The Spearman's Rank correlation coefficients analysis revealed that stress levels did not significantly correlate with preclinical academic performance ($r(25)=-0.282$, $p=0.154$) (shown

as figure 2), the results of the national licensing exam step 1 ($r(25)=0.358$, p value=0.067), or the partner matching method during working hours (self or random matching) ($r(25)=0.073$, p value=0.717).

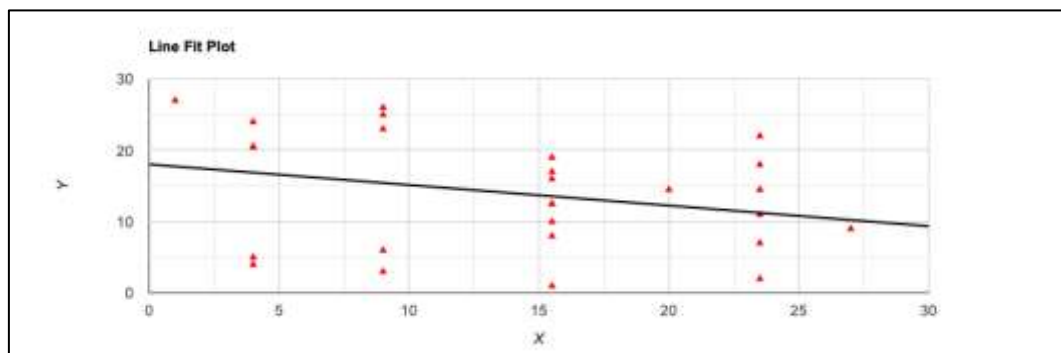


Figure 2: The results of the spearman correlation between stress scores and preclinical academic grade, ($r(25)=-0.282$, $p=0.154$)

Identified Stressors, Coping Mechanisms, and Desire for Improved Preparation

Unfortunately, students face multiple stressors individually. Among the primary stressors identified in self-reported studies are culture shock—stemming from exposure to unfamiliar social norms and healthcare systems in new clinical environments—and learning shock, which arises from the abrupt increase in academic and professional responsibilities upon starting clinical work. Additionally, the attitudes of medical staff, particularly when critical or unsupportive, have been shown to significantly amplify stress among trainees (Figure 3A).

Despite these challenges, students demonstrated resilience by employing various coping mechanisms such as venting and engaging in entertainment (Figure 3B). Support was primarily sought from friends and family, with only 11% feeling the need to consult staff members for support. Venting and spending time with friends and family appear to provide the best emotional support and help reduce stress during this critical period. However, two-thirds of the students expressed a desire for improved work-life balance.

Finally, most of them wish they could turn back time to better prepare themselves, such as by reading more books and spending more time studying. They believe that the best way to handle stress is to avoid facing it unprepared.

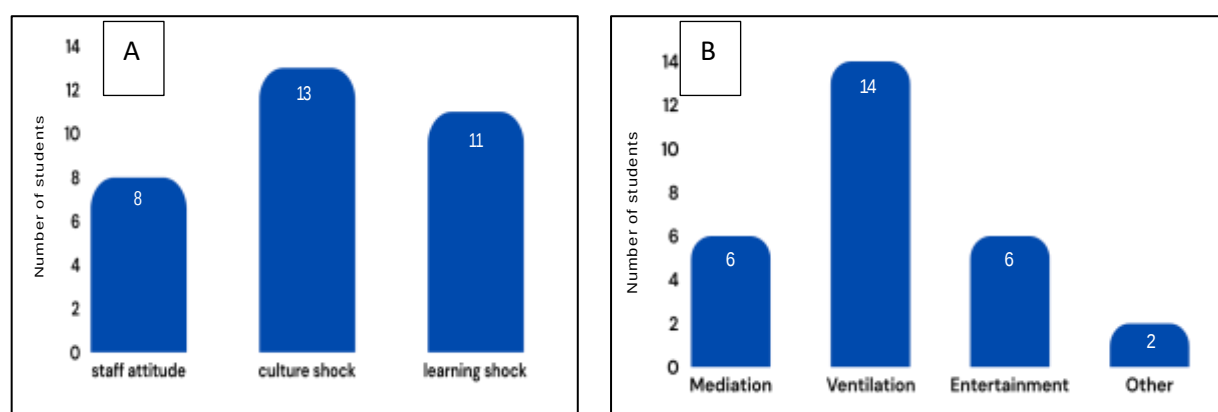


Figure 3: Identified stressor (A) and coping mechanism (B) of all participants.

Discussion

The transition from preclinical to clinical training is recognized as a period of significant adjustment and stress for medical students. This study sheds light on the multifaceted challenges faced by 4th year medical students at Surin Hospital, Thailand, during this pivotal phase. The study revealed that the average stress level reported by the students was 6.61 on a 1-10 scale, indicating moderate stress. The data highlights that stress levels may fluctuate across different clinical rotations - with internal medicine rotations being particularly stressful - which may be due to individual characteristics, duties or differences in expectations between the departments (Blair et al., 2020). This variation underscores

the need for targeted support in specific clinical settings to alleviate student stress (Jennings, 2015).

Several primary stressors were identified, including culture shock, learning shock, and the attitude of medical staff. Culture shock arises from adapting to the clinical environment's social norms and hierarchical structures (Beagan, 2005), while learning shock involves the sudden shift from theoretical knowledge to practical application (Prince, 2005). The attitude of medical staff, including perceived lack of support or harshness, further exacerbates stress (Hafferty et al., 1944). These findings align with previous research indicating that the

clinical environment can be intimidating for students transitioning from the classroom.

Despite the challenges, students exhibited resilience through various coping mechanisms. Venting and entertainment were the most commonly employed strategies, with a significant reliance on support from friends and family. Interestingly, only a small percentage (11%) sought support from staff members, suggesting a potential gap in the mentorship and support provided by the medical faculty (Hur, 2009). This points to the necessity of enhancing mentor-mentee relationships and creating a more approachable and supportive environment for students.

A recurring theme among the students was the desire for a better work-life balance. Two-thirds of the participants expressed the need for a more balanced approach to managing academic and clinical responsibilities. Additionally, many students wished they had better prepared for the transition by dedicating more time to studying and reading. This self-reflection indicates the importance of early preparation and the potential benefits of introducing preparatory programs before the clinical phase begin.

Limitations and recommendations

This study has several limitations that should be considered when interpreting the findings. First, the sample size was relatively small, with only 27 participants, which may limit the generalizability of the results. Additionally, the study was conducted at a single institution, Surin Hospital, in Thailand, which may not reflect the experiences of medical students in different regions or institutions. Finally, while qualitative data provided valuable insights, the depth of information might have been limited by the participants' willingness to share personal experiences in an interview setting. Future research should consider longitudinal studies with larger and more diverse samples to further understand the transitional experiences of medical students.

Implementation of Interventions

To better support medical students during their transition from preclinical to clinical training, several recommendations are proposed. Enhanced mentoring programs should be provided to offer structured guidance and emotional support from experienced clinicians. Regular stress management workshops can teach techniques such as mindfulness and relaxation exercises. Improving the clinical learning environment by fostering a supportive and respectful atmosphere with positive feedback from medical staff is crucial. Encouraging the formation of peer support groups will allow students to share experiences and provide mutual support. Promoting policies that support a healthy work-life balance, including flexible scheduling and adequate rest periods, is essential. Establishing regular feedback mechanisms will enable students to share their clinical training experiences. Cultural competence training can help students navigate diverse social dynamics and reduce culture shock. Additionally, academic support services, such as tutoring and study groups, can help manage cognitive demands. Implementing these recommendations can enhance the well-being and academic success of medical students during this critical phase.

Conclusion

This study highlights significant stressors for medical students transitioning from preclinical to clinical training, including culture shock, learning shock, and medical staff attitudes. Despite these challenges, students demonstrated resilience through various coping mechanisms and support from friends and family. The findings underscore the need for improved work-life balance and targeted support systems, such as enhanced mentoring and stress management workshops, to reduce stress and promote well-being and academic success among medical students.

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