

The Establishment and Academic Development of the Faculty of Medicine at Kasetsart University: Advancing Medical Education and Healthcare in Thailand

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Abstract

Background: The Faculty of Medicine at Kasetsart University, as a new medical school, faces the challenge of attracting high-caliber students. This study examines the motivations of rural high school students to pursue medical education at this institution.

Objectives: To explore the key factors influencing rural high school students' decisions to study at the new medical school.

Methods: A descriptive study was conducted with 120 high school students from Sakon Nakhon province and surrounding areas in Thailand. Participants completed a structured questionnaire during the Open House event. The questionnaire assessed motivations related to academic interests, career goals, and perceptions of the medical school. Descriptive and inferential statistics were used to analyze the data.

Results: Participants were primarily aged 17 (32.5%) and 18 (40.0%), with a near-equal gender distribution (47.5% male, 52.5% female). The most important motivations for choosing this new medical school in the top three rankings were passing the medical professional licensing examination (23.33%), followed by the quality of teaching facilities (40%) and educational support technology (35%). Scholarships, welfare services, and employment opportunities were also significant motivators. Other factors, such as curriculum content, counseling processes, and research opportunities, ranked lower in importance. While there were no significant differences in the proportions of males and females ranking specific motivations as their top choice.

Conclusion: The findings suggest that rural high school students prioritize academic success, modern learning facilities, and support systems when selecting this new medical school.

Keywords: High School Students; Medical Education; Motivation

Background

Founded in 1943, Kasetsart University is one of Thailand's leading institutions, renowned for its excellence in agriculture, engineering, and science. Over the years, the university has expanded its academic programs to encompass various fields, including medical sciences. The establishment of the Faculty of Medicine represents a pivotal moment in its academic journey, underscoring its commitment to contributing to Thailand's healthcare sector (1). The faculty of medicine was created with the vision of offering high-quality medical education that is both accessible and responsive to the country's healthcare needs. Leveraging

a strong foundation in science and research, the faculty provides a comprehensive medical curriculum supported by state-of-the-art facilities and cutting-edge educational technologies. This initiative reflects the institution's dedication to academic rigor, innovation, and the professional development of students. Distinguished by a multidisciplinary approach, the medical program integrates expertise from various scientific domains, enhancing the quality of education (2). The university's established reputation in other disciplines adds credibility and respect to its medical faculty, which aims to produce skilled professionals equipped to address both local and global health

challenges. By focusing on teaching and research, the faculty is poised to shape the future of healthcare in Thailand and beyond (3).

As a new medical school, building trust, credibility, and alignment with student aspirations is crucial. Attracting high-caliber students, establishing a strong reputation, and offering competitive educational opportunities are among the key challenges (4, 5). Confidence plays a critical role in students' decisions, as they evaluate factors like facilities, academic programs, faculty expertise, and technological support (6). The medical school's respectability often stems from its perceived prestige, reputation, and alignment with societal values. While new, the university's long-standing reputation in other fields provides a solid foundation for fostering respect among students and their families (7). Today's students prioritize more than academic outcomes; they value modern technology, hands-on learning experiences, and a supportive environment (8). By addressing these expectations, the medical school can build a strong identity, attract motivated learners, and establish itself as a trusted institution in medical education (9). This article addresses the challenge of understanding how a new medical school can attract rural students in a competitive educational landscape. By analyzing motivational factors, we aim to offer insights into how institutional strategies can align with student needs in underserved regions.

Objectives

This study aimed to explore the key factors influencing rural high school students' decisions to pursue their education at a representative of new medical schools in Thailand.

Methods

Study Design: This study is a descriptive study designed to investigate the motivations of rural high school students to pursue education at the Faculty of Medicine, Kasetsart University, Thailand. Motivational features were selected based on a literature review of existing studies on medical school choice and input from subject matter experts in medical education. This ensured the relevance and comprehensiveness of factors assessed.

Participants: The participants were 120 high school students from Sakon Nakhon province and nearby areas. All participants voluntarily joined the study, and their consent was obtained before data collection.

Confidentiality and anonymity of the participants were maintained throughout the study. This methodology ensured that the study was conducted systematically and ethically, providing reliable insights into the motivations of high school students.

Data Collection: Motivations were assessed using a structured questionnaire, which was distributed to participants during the open house Day event organized by the Faculty of Medicine, Kasetsart University. The questionnaire included items covering various aspects of motivation, such as academic interests, career aspirations, and perceptions of this medical school. Motivational features were selected based on a literature review of existing studies on medical school choice and input from subject matter experts in medical education. This ensured relevance and comprehensiveness of factors assessed.

Procedure: The activity was conducted in a controlled setting during the Open House event to ensure consistent administration of the questionnaire. Faculty staff and researchers provided instructions and were available to answer questions to minimize misunderstandings and ensure accurate responses. The questionnaire's reliability was evaluated by the experts using Cronbach's alpha coefficient. The result was 0.87, indicating satisfactory reliability for assessment of motivational factors.

Data Analysis: Data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics, including frequencies and percentages, were used to summarize the participants' demographic characteristics and motivational factors. Additionally, inferential statistics such as chi-square were applied to explore differences in motivation levels based on demographic variables if applicable. The validity of the questionnaire was tested using content validity methods with feedback from experts in medical education. Specifically, the questionnaire was evaluated by three independent experts in medical education for relevance, clarity, and coverage of motivational constructs. Each item was rated using a 4-point relevance scale, and the Item-Content Validity Index (I-CVI) was calculated. All items achieved an I-CVI score of 0.80 or higher, indicating acceptable content validity. The Scale-Level Content Validity Index (S-CVI/Ave) was 0.91, which exceeds the acceptable threshold of 0.80. Reliability was evaluated using Cronbach's alpha to ensure the internal consistency of the items. The dataset included a balanced gender distribution but was not balanced across all

demographic subgroups (e.g., rural vs. urban within rural provinces). Over-prediction risks were mitigated by focusing on descriptive interpretations rather than predictive modeling. The level of statistical significance is P value <0.05 .

Results

The demographic characteristics and motivations of the 120 participants provided valuable insights into their educational backgrounds and preferences for studying at the Faculty of Medicine, Kasetsart University (Table 1). Most participants were aged 17 (32.5%) and 18 (40.0%), representing a predominantly high school senior demographic. The gender distribution was nearly balanced, with 57 males and 63 females. In terms of educational level, the majority of participants were in Grade 12 (72.5%), followed by smaller proportions in Grade 11 (20.0%) and Grade 10 (7.50%). The students were mostly in urban areas. (78.68%).

The motivations for choosing the Faculty of Medicine at Kasetsart University were assessed and ranked by importance, as shown in Table 2. The motivations for studying medicine at this institute varied, reflecting a range of priorities among the participants (Figure 1). Passing the medical professional licensing examination emerged as the most important motivation for 23.33% of participants, although 20% ranked it as the least important factor. Facilities for teaching and learning were highly valued, with 40% of participants considering this the second most important factor, underscoring the significance of a strong academic environment. Educational support technology was ranked as a top-three priority by 35% of participants, highlighting the importance of advanced learning tools.

Data analysis compared the top-ranked motivations for studying at this medical school by gender (Analysis included only responses where each factor was selected as the first-ranked motivation by participants). The results showed no statistically significant differences between male and female students across all motivational factors, as all P -values were above the conventional significance threshold of 0.05 (Table 3).

Discussion

The findings of this study provide valuable insights into the demographic characteristics and motivations of prospective rural medical students at Kasetsart University, a new medical school.

This university can utilize these findings to design recruitment strategies such as emphasizing

technological infrastructure, offering financial support, and showcasing strong licensing exam preparation, all of which align with student priorities identified in the study.

The sample consisted primarily of high school seniors, with most participants aged 17 and 18, reflecting the typical age range for students entering higher education. The gender distribution, with 57 males and 63 females, indicates a relatively balanced sample, which aligns with broader trends in medical school admissions where gender balance is gradually improving (10). The pre-university educational background of the participants, predominantly in Grade 12, suggests that the majority of students were at a critical stage in their decision-making process regarding their future academic and career paths.

The study's findings on motivations reveal a complex array of factors that influence the decision to pursue a medical degree at this new medical school. The most prominent motivation, passing the medical professional licensing examination, reflects the high value placed on professional certification and the desire to ensure a successful medical career. This finding is consistent with previous research indicating that achieving licensure is a key driver for students entering medical programs (11). However, the 20% of students who ranked the licensing exam as least important may represent a shift toward valuing educational experience, institutional environment, and career development over exam performance. This trend may reflect a broader transformation in student expectations in medical education (12). The importance of the learning environment, as indicated by the high ranking of facilities for teaching and learning, is another critical finding (13). This suggests that prospective medical students highly value the resources and infrastructure available to them, such as modern classrooms, laboratories, and access to advanced technology (14).

This emphasis on facilities supports previous studies that have highlighted the role of a conducive learning environment in shaping students' academic experiences and success in medical education (15, 16). Additionally, the significant ranking of educational support technology further underscores the growing role of digital tools and resources in contemporary medical education, as students recognize the importance of technology in enhancing learning and preparing for future clinical practice. Scholarships were ranked as a key motivator, with a substantial portion of participants placing them among the top priorities. This finding

aligns with the rising costs of education and the financial burden that many students face (17). Scholarships provide crucial financial support, allowing students to pursue their academic goals without the added stress of financial constraints. The emphasis on welfare services, including dormitory accommodation and healthcare, highlights the importance of holistic student support services. As medical programs are often demanding, students likely view a stable living environment and accessible healthcare as essential for maintaining well-being and achieving academic success (18). The relatively high ranking of employment opportunities within the medical school suggests that prospective students are thinking beyond their studies, focusing on job prospects and career advancement. This is indicative of the increasing awareness among students of the competitive nature of the medical field and their desire for job security post-graduation (19). In a similar vein, the importance of curriculum content and teaching methods demonstrates that students are not only concerned with the end result but also with the quality of education they will receive throughout their training (20). The findings related to counseling processes and opportunities for research highlight the students' interest in having access to academic and career guidance, as well as the ability to engage in research activities during their medical studies. These factors reflected the desire for a comprehensive and supportive educational experience that goes beyond just classroom learning (21). Furthermore, while postgraduate opportunities were ranked lower than other factors, their still notable importance suggests that students are thinking about their long-term academic and professional development.

While there were observable differences in the proportions of males and females ranking specific motivations as their top choice, none of the differences reached statistical significance. This suggested that gender may not play a substantial role in determining the primary motivations for students selecting the medical school. Possible explanations for non-significant differences were included in some reasons. (22, 23). 1. Sharing goals in medical education: Both male and female students may exhibit similar aspirations in medical education due to the universally high expectations associated with the profession. Factors such as passing the medical licensing examination, access to quality facilities, and robust support systems are likely essential for all students, regardless of gender. 2. Uniform exposure to opportunities: The increasing

accessibility of educational resources and opportunities, such as scholarships, modern teaching technologies, and academic counseling, may contribute to a leveling of gender-based motivational differences. 3. Societal shifts: Traditional gender stereotypes regarding career choices have diminished over time, especially in fields like medicine. This shift may lead to more equal perceptions of educational priorities and motivations among male and female students. 4. Sample characteristics: The balanced gender distribution in the study sample ensures equitable representation, reducing the likelihood of bias in the data. However, it is also possible that external factors, such as regional or cultural influences, play a role in creating a homogeneity of motivations (24). Moreover, this finding highlights the importance of fostering an inclusive and equitable learning environment that caters to the collective needs of students, regardless of gender. (25, 26). While gender did not significantly influence motivational rankings, unmeasured variables such as family expectations, cultural norms, and career aspirations may still subtly shape student decisions. Future research should employ qualitative methods or longitudinal tracking to explore these dimensions.

Overall, the results of this study provide a nuanced understanding of the factors that influence prospective rural high school students' decisions to study at a new medical school. The Faculty of Medicine strategically incorporates Kasetsart University's strengths in agriculture, science, and engineering into its medical curriculum by promoting interprofessional learning, bioengineering collaborations, and public health programs focused on rural and agricultural communities. Students are not solely driven by the prospect of obtaining a degree or passing an exam but are also deeply concerned with the quality of the educational environment, financial support, career opportunities, and their overall well-being. This highlights the importance of universities continuously enhancing their academic offerings, support services, and infrastructure to meet the evolving needs of prospective students. Future research could explore how these motivations vary across different regions or countries, as well as examine the long-term impact of these motivations on students' academic success and career satisfaction. Understanding how these factors evolve throughout the course of medical education could help shape more targeted recruitment and support strategies for new medical schools.

Limitation: As data were collected during an Open House event, attendees may already have had a favorable perception of the university, potentially introducing selection bias. Future studies should include participants from broader outreach efforts to minimize this effect.

Conclusion

This study provides a comprehensive overview of the motivations driving rural high school students to pursue medical education at a new medical school. The findings reveal that key factors influencing students' decisions include the potential to pass the medical professional licensing examination, the quality of teaching facilities, and the availability of educational support technology. These factors reflect a clear preference for high academic standards, modern learning environments, and practical tools to support their education. The importance of scholarships, welfare services, and career opportunities further indicates that students value not only academic success but also financial support and overall well-being during their studies. Despite being a new medical school, Kasetsart University's ability to attract students appears to be shaped by its strong academic reputation in other disciplines, which helps establish trust and respect. This study underscores the need for the faculty of medicine to continue aligning its offerings with emerging trends in medical education, such as hands-on learning, student support services, and career advancement opportunities, in order to remain competitive with other established medical schools.

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Table 1. Features of high school students' demographics

Parameter	N=120	%
Ages (years)		
15	9	7.50
16	24	20.00
17	39	32.50
18	48	40.00
Gender		
Male	57	47.50
Female	63	52.50
Class level		
Grade 10	9	7.50
Grade 11	24	20.00
Grade 12	87	72.50
Residence		
Urban area	96	78.68
Outlying district area	26	21.32

Table 2. Motivational topics that were chosen for ranking

No.	Motivation factors	Selection for ranking (%)									
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
1	Passing medical professional licensing examination	23.33	13.33	1.67	6.67	15.00	1.67	3.33	10.00	5.00	20.00
2	Facilities for teaching and learning	1.67	40.00	6.67	10.00	5.00	8.33	5.00	5.00	15.00	3.33
3	Educational support technology	3.33	1.67	35.00	11.67	8.33	8.33	11.67	8.33	3.33	8.33
4	Scholarships	10.00	8.33	10.00	28.33	5.00	5.00	15.00	3.33	8.33	6.67
5	Welfare (dormitory accommodation, healthcare services)	15.00	6.67	5.00	6.67	31.67	11.67	5.00	11.67	5.00	1.67
6	Employment opportunities at the University	11.67	1.67	5.00	3.33	8.33	36.67	8.33	10.00	10.00	5.00
7	Curriculum content and teaching methods	8.33	6.67	6.67	11.67	6.67	6.67	35.00	5.00	10.00	3.33
8	Effective counseling processes for students	5.00	3.33	18.33	3.33	13.33	6.67	8.33	33.33	5.00	3.33
9	Opportunities for research work	6.67	10.00	6.67	11.67	5.00	10.00	1.67	6.67	31.67	10.00
10	Opportunities for postgraduate studies	15.00	8.33	5.00	6.67	1.67	5.00	6.67	6.67	6.67	38.33

Table 3. Gender-specific comparison of the top-ranked motivations

No.	Motivational factors	Gender		P-value
		Male (%)	Female (%)	
1	Passing medical professional licensing examination	35.7	64.3	0.15378
2	Facilities for teaching and learning	50.0	50.0	0.94308
3	Educational support technology	75.0	25.0	0.26262
4	Scholarships	58.3	41.7	0.42827
5	Welfare (dormitory accommodation, healthcare services)	33.3	66.7	0.19173
6	Employment opportunities at the university	75.0	25.0	0.71128
7	Curriculum content and teaching methods	50.0	50.0	0.86866
8	Effective counseling processes for students	66.7	33.3	0.33476
9	Opportunities for research work	60.0	40.0	0.55769
10	Opportunities for postgraduate studies	55.5	44.5	0.45788

Chi-square test for statistical significance ($P < 0.05$)

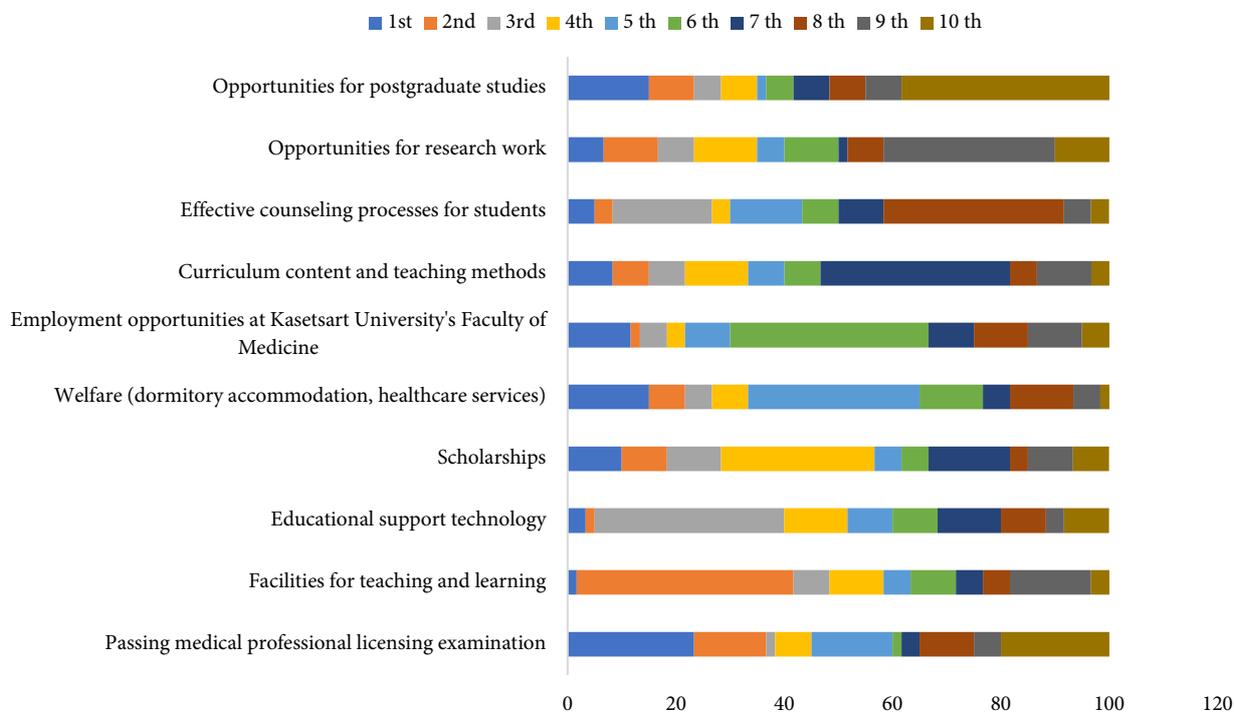


Figure 1. Comparative motivational rating chart categorized by topic