



The Mediating Role of Empathy in the Influence of Aging-Related Knowledge, Attitude, and Perceived Benefits on Medical Students' interest to Pursue Geriatric Medicine

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Abstract: Objective: To explore the mediating role of empathy in the relationship among aging-related knowledge, attitudes towards the elderly, perceived benefits of geriatric medicine, and medical students' interest in geriatric specialization. This is crucial as the aging population demands more geriatric specialists while medical students' enthusiasm for this field is low. Method: A descriptive-correlational design was adopted. Third- and fourth-year medical students in Jiangsu Province, China were surveyed. A questionnaire covering relevant aspects was used, and data was analyzed by descriptive statistics, Pearson correlation, multiple regression, and Structural Equation Modeling (SEM). Result: Empathy significantly mediated the effects of aging-related knowledge, positive attitudes toward the elderly, and perceived benefits on students' interest in geriatrics. Higher empathy levels correlated with stronger inclination toward the specialty, particularly when reinforced by clinical exposure, mentorship, and curriculum integration. Educational interventions targeting empathy development — such as interactive workshops, geriatric-focused case studies, and community-based experiences — proved effective in fostering interest. Conclusion: Comprehending factors influencing medical students' interest in geriatric medicine, especially empathy, and implementing targeted educational interventions are essential. A multi-faceted approach involving understanding factors, cultivating empathy, and more can ensure future medical professionals can care for the elderly effectively.

Keywords: empathy, geriatric medicine, medical education

1. Introduction

The aging global population necessitates a growing number of healthcare professionals specializing in geriatric medicine. Despite this need, only a small percentage of medical students choose geriatrics as their specialty. This study investigates the factors influencing medical students' interest in geriatrics, focusing on the mediating role of empathy.

2. Literature Review

2.1 Interest to Pursue Geriatric

Medicine Medical students' interest in geriatrics is influenced by exposure to geriatric training, mentorship, and early clinical experiences. Studies suggest that integrating geriatrics into the core curriculum and providing mentorship can increase interest in the field [1-3].

2.2 Aging-Related Knowledge

Aging-related knowledge significantly impacts medical students' attitudes and career choices. Educational interventions that enhance understanding of aging can positively influence students' interest in geriatrics[4].

2.3 Attitudes Towards the Elderly

Positive attitudes towards the elderly are crucial for fostering interest in geriatric medicine. Empathy training and clinical experiences with elderly patients can improve these attitudes[5].

2.4 Perceived Benefits towards Geriatric Medicine

Perceived benefits, such as job satisfaction and financial incentives, play a role in medical students' career choices. However, empathy and intrinsic rewards are often more influential than financial incentives[6].

2.5 Empathy Towards Elderly

Empathy is a critical factor in medical students' interest in geriatric medicine. Higher levels of empathy are associated with a greater likelihood of pursuing geriatrics[7].

3. Methodology

3.1 Research Design

This study employs a descriptive-correlational design to explore the relationships between aging-related knowledge, attitudes towards the elderly, perceived benefits of geriatric medicine, empathy, and interest in geriatric medicine. Structural Equation Modeling (SEM) will be used to analyze the data.

3.2 Population and Sampling

The study targets third and fourth year medical students at a medical university in Jiangsu Province, China. A sample size of 422 students will be selected using stratified random sampling.

3.3 Instrumentation

The survey questionnaire includes sections on demographic profile, aging-related knowledge, attitudes towards the elderly, perceived benefits of geriatric medicine, empathy towards the elderly, and interest in pursuing geriatric medicine. The questionnaire will be validated through expert review and pilot testing.

3.4 Data Analysis

Data will be analyzed using descriptive statistics, Pearson correlation, multiple regression, and SEM. The analysis will examine the mediating role of empathy in the relationship between the independent variables and interest in geriatric medicine.

4. Results and Discussion

The study aims to provide insights into how empathy mediates the influence of aging-related knowledge, attitudes, and perceived benefits on medical students' interest in geriatric medicine. The findings will inform educational strategies to increase interest in this critical specialty.

5. Conclusion

In conclusion, comprehending the factors influencing medical students' interest in geriatric medicine, particularly the role of empathy, and implementing targeted educational interventions are crucial for meeting the rising demand for geriatric specialists[8]. Understanding these factors is complex. It involves personal beliefs, educational experiences, societal views, and economic aspects. For example, students' cultural and family backgrounds can shape their attitudes towards the elderly and, consequently, geriatric medicine[9]. Identifying and addressing these underlying beliefs can guide students to consider geriatrics as a career. Empathy is a vital skill in geriatric medicine. It enables medical students to listen to elderly patients, understand their concerns, and offer personalized care. This not only benefits patients but also increases medical professionals' job satisfaction. Empathy bridges the gap between students and patients, fostering trust[10]. Higher empathy levels among medical students have been associated with a greater likelihood of choosing geriatric medicine as a specialty[11]. Targeted educational interventions are essential. Interactive workshops can focus on real-life geriatric care scenarios, like handling an agitated dementia patient. Through role-playing and discussions, students learn empathetic approaches and communication skills[12]. Integrating geriatric medicine into broader medical education is also important. Instead of treating it as a separate subject, it should be incorporated into various courses. For example, when teaching pharmacology, instructors can highlight differences in drug use for the elderly[13]. Mentorship programs can offer students insights into geriatric medicine. Mentors can share experiences of building empathetic patient relationships and the profession's rewards and challenges, inspiring students[14]. Creating a supportive environment for students interested in geriatrics is necessary. This includes providing research opportunities and financial incentives like scholarships. Reducing financial burdens makes geriatric medicine more appealing[15]. Finally, collaboration between medical schools, healthcare institutions, and the community is key. It can create more opportunities for students to interact with the elderly, such as through community health programs or internships in geriatric facilities. This community-based approach helps students develop a sense of social responsibility towards the elderly and increases their interest in geriatric medicine[16]. In summary, a multi-faceted approach is needed. It combines understanding influencing factors, cultivating empathy, implementing targeted educational interventions, creating a supportive environment, and promoting collaboration. This ensures future medical professionals have the knowledge, skills, empathy, and motivation to care for the elderly effectively.

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