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ORIGINAL ARTICLE
Journal of Biomedical Sciences
DOI: https://doi.org/10.3126/jbs.v12i2.91041

"Why do you want to be a doctor?" A mixed-methods cross-sectional study of motivations among first-year medical students at a medical school in Mauritius

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Information about the article:

Received: Dec 10, 2025
Accepted: Dec 31, 2025
Published online: Feb 18, 2026

Cite this article:

Jatain N, Sharma R, Banerjee S, Dodia K, Deshwali SK, Roy B, Banerjee I. "Why do you want to be a doctor?" A mixed methods cross-sectional study of motivations among first-year medical students at a medical school in Mauritius. Journal of Biomedical Sciences. 2025;12(2):23-32

Publisher
Nepal Health Research Society, Basundhara -6, Gokarnesowor Municipality, Kathmandu, Nepal
eISSN 2382-5545, ISSN 2676-1343 (Print)

ABSTRACT

Background

The primary objective of the study was to identify the motivational factors influencing the choice of medicine among first-year medical students to become doctors in Mauritius.

Material and methods

A mixed-methods cross-sectional study was conducted at Sir Seewoosagur Ramgoolam Medical College, Mauritius, in November 2025.

Results

Of the 140 medical students enrolled in the first-year medical course, 110 students participated in the study, yielding an overall response rate of 78.57% (50 female, 45.45%; 60 male, 54.54%). Most were Mauritian (n=63, 57.2%), followed by Indian (n=35, 31.8%) and South African (n=11, 10.0%) students. Altruism was the most commonly reported motivation for choosing medicine. Specialty preference differed significantly by gender (χ^2=15.73, p=0.008): females more often preferred Paediatrics and Obstetrics and Gynaecology, whereas males more often preferred Surgery. Students with a family member in healthcare were more likely to report prior exposure (χ^2=4.97, p=0.026), but family attitudes were not significantly associated with perceived preparedness (χ^2=10.28, p=0.246). An inductive thematic analysis was conducted for the qualitative domain, and two themes were generated from various codes/nodes: namely Intrinsic factors and Extrinsic factors. Each theme had different categories.

Conclusion

Medical students' choice to pursue medicine was primarily driven by intrinsic motivations, particularly altruism, compassion, and a sense of calling. While extrinsic factors such as career stability, financial security, and social status also influence decision-making, they function as a reinforcing influence rather than primary driving forces.

Keywords
Education, Health Occupations, Career Choice, Altruism, Indian Ocean Islands, Mauritius

Background

A young person's decision to pursue medicine is viewed as a turning point in his or her life. It is a decision that affects not just one's education but also one's identity, ambitions, and desire to contribute to society. Unlike many other professions, medicine requires years of training, the ability to deal with emotional stress, and a strong feeling of duty to others. As a result, understanding why students choose to pursue a career in medicine has long been an important topic in medical education research. According to a study conducted by Goel et al, students are often influenced by a combination of personal values, expectations, and practical considerations; yet these influences might range dramatically between student groups [1].

Numerous studies have highlighted that students' motivations to study medicine are multidimensional. It involves intrinsic factors as well as extrinsic factors. Intrinsic factors such as a desire to help others, fascination with science, or a sense of purpose often coexist with extrinsic influences like job security, family expectations, and the social prestige traditionally associated with the medical profession [2]. Individuals from different cultural and social backgrounds, as well as undergraduate and graduate, may have distinct balances between these motives [3].

These early sets of goals can control how students engage with their education and adjust to the reality of medical school. The way students interact with their education and adjust to the demands of medical school can be influenced by these early motivations. Simultaneously, studies on the well-being of students have shown a strong correlation between motivation and flexibility, decreased stress, and long-term job satisfaction. Students who enter medicine with external reasons may be prone to anxiety and burnout during their training sessions [4]. This makes it even more essential to understand what motivates students at the start of their medical careers, particularly during the first year when they move from school surroundings to a challenging medical curriculum.

In this view, researching the motivation of first-year medical students provides a useful insight into how young learners adapt to the profession and what expectations they carry with them. This group is suitable for researching the initial factors behind selecting a medical career because their motives are still quite new and primarily unaffected by clinical exposure. Therefore, to understand what encourages students to opt for careers in medicine today, this study intends to look at the internal as well as external variables that influence their decision to study medicine. Such insights can assist universities and other organizations in building more efficient counseling and mentoring that are focused on the needs and goals of future doctors. The primary objective of the study was to identify the motivational factors influencing the choice of medicine among first-year medical students and to qualitatively explore students' personal experiences, inspirations, and perceptions related to becoming doctors in Mauritius.

Material and methods

Study Design and setting

A mixed-methods cross-sectional study was conducted at Sir Seewoosagur Ramgoolam Medical College, Mauritius in November 2025. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines were followed in the design and reporting of the cross-sectional study.

Of the 140 medical students enrolled in the first-year medical course, 110 students participated in the study, yielding an overall response rate of 78.57%. Phenomenological qualitative data analysis was conducted with nine students (labelled as P1-P9) through one-to-one interviews. A Convenience sampling technique was used for qualitative data collection.

Data collection

Data were collected from November 10- November 30, 2025. The study comprised two components: Quantitative and quantitative. Quantitative data were collected using Google Forms, which were distributed via the official class WhatsApp group. Qualitative data were collected through face-to-face, one-on-one interviews. The interviews were audio-recorded and transcribed manually. All interviews were conducted under the guidance of a senior author (professor) in a private setting to ensure confidentiality. The anonymity of the students and the confidentiality of their responses were maintained throughout the study. Informed consent was obtained from all the participants of the study.

Questionnaire design

A structured questionnaire was developed following an extensive review of the literature. The questionnaire consisted of four sections: A. Demographic details, B. Core Motivations for choosing medicine, C. Perceptions and future outlook, and D. Qualitative aspects.

Questionnaire validity

The quantitative component of the questionnaire was validated by five subject experts for both content and construct. All the item was rated on a 4-point Likert scale, and the average congruency percentage (ACP) was calculated according to Polit and Beck´s method [5]. The questionnaire was revised based on feedback from the experts, and the final ACP average congruency percentage was found to be 90%. A pilot study was conducted on ten students to assess face validity [6].

For the qualitative component, a pre-validated semi-structured interview guide adapted from Korkmaz et al. was used to explore students' perceptions [7].

Reliability analysis

Cronbach's alpha was used to assess the reliability of the quantitative component of the questionnaire. The internal consistency of the items was found to be 0.84, indicating acceptable reliability.

Inclusion criteria
All first-year medical students enrolled in semesters 1-3 at Sir Seewoosagur Ramgoolam Medical College, Mauritius, were eligible for inclusion in the study. A total of 110 students out of 140 participated in the quantitative data analysis, while nine students participated in the qualitative component. Among the nine students in the qualitative part of the study, four were female, and five were male (three Indians, three South Africans, three Mauritians). To ensure equal representation across semesters, three students were selected from each semester (semester 1, semester 2, semester 3).

Exclusion criteria
Students from semesters 4-10 were excluded from the study. Additionally, students who were absent during data collection or who didn't provide consent to participate in the survey were excluded.

Outcome variable
The primary outcome variables were Intrinsic and Altruistic motivations as well as extrinsic and pragmatic Motivations.

Explanatory variable
Individual-level factors considered in the study included gender (male and female), nationality (Mauritian, Indian, South African, and others), community (urban, rural, semiurban), and family members' doctors (yes, no).

Ethical clearance
Prior to the data collection, ethical clearance was obtained from the Institutional Research and Ethics Committee, Sir Seewoosagur Ramgoolam Medical College, Mauritius, on November 07, 2025 (Approval Code: SSRMC/IERB/2025/011).
The study was conducted according to the latest version of the Declaration of Helsinki - Ethical Principles for Medical Research involving Human Subjects guidelines.

Sample size calculation
Quantitative component: The sample size was calculated using the following formula: [8,9]

$$n = \frac{z^2 p(1-p)}{d^2}$$

where n is the sample size, z represents the value of the standard normal distribution corresponding to 95% confidence interval, p is the expected proportion in the population, d: absolute precision. Where, z=1.96 for 95% Confidence interval, p=0.5, d=0.096.

$$n = \frac{1.96^2 X 0.5(1-0.5)}{0.096^2}$$

The required sample size was calculated to be 105. To account for non-responses and absenteeism, the sample size was increased by 5%, resulting in a final target of 110 participants to ensure adequate statistical power.
For the qualitative component, data were collected following the guidelines of Glaser et al. until data saturation was achieved, meaning no new codes/nodes emerged from the interviews [10, 11]

Data management and statistical analysis
Quantitative analysis
The quantitative data were analyzed using the Statistical Product and Service Solutions (SPSS, version 31; IBM SPSS Statistics for Windows, Armonk, NY). The chi-squared test was used to establish the statistical association between variables, and $p < 0.05$ was considered statistically significant.

Qualitative analysis
The interviews were recorded through one-on-one, face-to-face interviews conducted by the researchers. All the interviews were audio recorded and transcribed manually. The transcripts were analyzed using Braun and Clarke's (2006) six-step thematic analysis method [12]. NVivo 15 (Windows) software (QSR International, Melbourne, Australia) was used for thematic analysis to generate various nodes/codes and the various themes**.**

Results
Qualitative analysis
Nine students participated in the Qualitative part of the study, of whom four are female, and five are male (Three Indians, Three South Africans, three Mauritians). Three students were from semester 1, three from semester 2, and three from semester 3. The participants were labelled as P1-P9.
An inductive thematic Analysis was conducted, and two themes were generated from various codes/nodes: Intrinsic factors, Extrinsic factors. Each theme had different categories. Academic, emotional, and inspirational triggers, personal calling for Intrinsic factors, whereas career and practical benefits, professional advantages, and social influence were under Extrinsic factors (Table 1).

Various codes/nodes and the narratives are outlined in Table 2. The codes that were derived were: Science, curiosity, challenge, achievement, compassion, altruism, empathy, purpose, exposure, life events, inspiration, calling, identity, passion, fulfilment, stability, income, opportunity, security, career path, status, family, role model, and community.

Table 1: Thematic analysis

Themes	Categories	Codes/Nodes
Intrinsic Factors	Academic	Science
		Curiosity
		Challenge
		Achievement
		Discipline
	Emotional	Compassion
		Altruism
		Empathy
		Purpose
		Composure
	Inspirational Triggers	Exposure
		Life events
		Inspiration
	Personal Calling	Calling
		Identity
		Passion
		Fulfilment
Extrinsic Factors	Career and practical benefits	Stability
		Income
		Opportunity
		Security
	Professional advantages	Career path
		Status
	Social Influence	Family
		Role model`
		Community

Table 2: Codes/nodes

Codes/Nodes	Description	Narratives
Science	Interest in Biology and Medical Science	"Can combine both the science and human gear and help the people around me." [P3]
Curiosity	Desire to learn and explore	"Learn about the human body it's my own curiosity which drives me more and more" [P5]
Challenge	Motivation from academic difficulty	"It's the workload, because I'm only in first year, but it is a lot of work." [P4]
Achievement	Drive to exceed, succeed and progress	"More you study more you gain things, and you will be able to do it all right" [P2]
Compassion	Kind emotional concern for suffering	"To become more competent, to be more compassionate with people" [P1]
Altruism	Selfless desire to help	"I'm a very selfless person and I think this really aligns with what a doctor should be." [P8]
Empathy	Understanding and sharing others' feelings	"Have empathy, to be able to relate to people and the patients that they treat, and they should also be very kind-hearted" [P5]
Purpose	Sense of meaning attached to the profession	"This field really combines science, service and human connection, and this gives me a sense of purpose" [P6]
Exposure	Early experiences shaping interest	"I realized that there are a lot of sick people in the world, and that they need people to help them" [P9]
Life event	Significant personal event	"It was from childhood I grew up, and, in our community, we started helping more people" [P9]
Inspiration	Motivating influence from others	"The healthcare system and how doctors treat patients is the one which inspires me more." [P8]
Calling	Deep inner pull towards medicine	"My decision to become a doctor is not just my own interest." [P6]
Identity	Seeing medicine as a part of oneself	"I couldn't see myself doing any other" [P8]
Passion	Strong Enthusiasm for medicine	"Someone is passionate about the job, someone who would like to actually work, to treat." [P4]
Fulfilment	Feeling satisfied doing something meaningful	"I get satisfaction that I'm doing something good" [P2]
Stability	Predictable professional future	"I want to build a career where I'm financially stable so I can support my family and contribute to society" [P7]
Income	Financial benefits	"Doctors, they do make quite a lot of money." [P5]
Opportunity	Growth and future prospects	"It's a good field and you may achieve more and more in this" [P9]
Career path	Clear medical career growth	"Maybe Specialise in future and hope I can practice back home in South Africa." [P5]
Status	Social respect and prestige	"People look up to doctors as helpers, a highly respected job with great status" [P8]
Family	Encouragement from family	"Come from a family of people in the medical field, so there was always that view of getting into medicine they would like support me and want me to be happy" [P5]
Role model	Influence of admired figures	"My family friend's dad, like my best friend's dad, is a doctor. So, seeing him, the way he is, helping people, the lifestyle he has, his cars, his house, the way he treats people." [P4]
Community	Cultural or societal influence	"In my community, we believe in serving people, helping them." [P9]

Quantitative result

Of the 140 medical students enrolled in the first-year medical course, 110 students participated in the study, yielding an overall response rate of 78.57% among which 50 (45.45%) were female, and 60 (54.54%) were male. The mean age was found to be 19.88 ±1.55 SD years. Table 1 depicts that many students who participated in the study were Mauritian (63, 57.2%), Indian (35, 31.8%), and South African (11, 10%) nationals. Considering the community majority were from

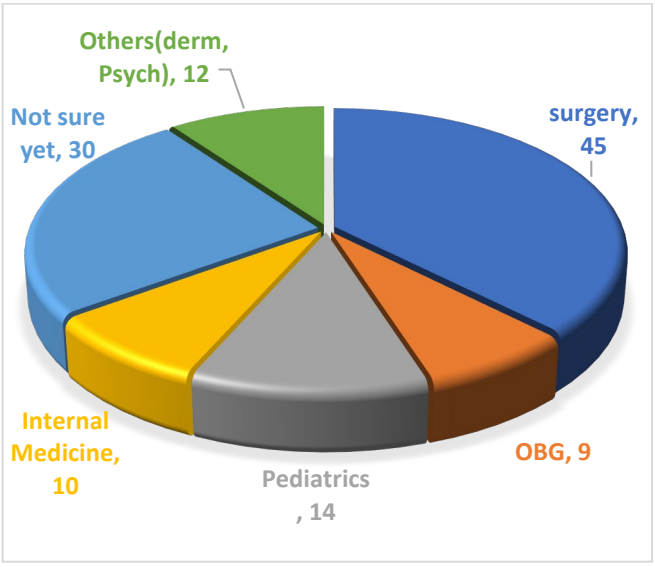
Urban community (51, 46.3%) following Rural community (31, 28.1%) and semi-urban community (28, 25.4%) (Table 3).

Table 3: Demographic details

Demographic profile		Female n (%)	Male n (%)	Total n (%)
Nationality	Indian	25(71.4%)	10(28.5%)	35(31.8%)
	Mauritian	20(31.7%)	43(68.2%)	63(57.2%)
	South African	5(45.4%)	6(54.5%)	11(10%)
	Others	0(0%)	1(100%)	1(1%)
Community	Semi-urban	13(46.4%)	15(53.5%)	28(25.4%)
	Urban	38(74.5%)	13(25.4%)	51(46.3%)
	Rural	22(70.9%)	9(29.03%)	31(28.1%)

Figure 1 shows that most of the students opted for surgery as career choice 45 (37.5%). About 30 (25.0%) students were not sure about their career choice and subject of interest.

Figure 1: Career choice



There is a statistically significant association between gender and area of interest ($p < 0.01$). Females show higher interest in OBG and Pediatrics, while males are more represented in Surgery and "Other" specialties (e.g., Psychiatry, Dermatology). This aligns with global trends in medical specialty gender distribution (Table 4).

Table 4: Gender and area of interest

Area of Interest	Male n (%)	Female n (%)	Total n (%)	Chi-square / df	P value
Surgery	17 (14.2%)	28 (23.3%)	45 (37.5%)		
OBG	1 (0.8%)	8 (6.7%)	9 (7.5%)		
Pediatrics	3 (2.5%)	11 (9.2%)	14 (11.7%)		
Internal Medicine	5 (4.2%)	5 (4.2%)	10 (8.3%)		
Not sure yet	10 (8.3%)	20 (16.7%)	30 (25.0%)	$\chi^2 = 15.73$, df = 5	0.008*
Others (Derm, Psych, etc.)	9 (7.5%)	3 (2.5%)	12 (10.0%)		
Total	45 (37.5%)	75 (62.5%)	120 (100%)		

*p<0.05, statistically significant

Table 5 represents cross tabulation between prior healthcare experience and family in health care. There is a significant association ($p < 0.05$). Students with healthcare family members are more likely to have had hands-on healthcare experience before medical school, possibly due to easier access to shadowing or volunteering opportunities.

Table 5: Family healthcare background and healthcare experience

Prior Healthcare Experience	Family in Healthcare: Yes n (%)	Family in Healthcare: No n (%)	Total n (%)	Chi-square	P value
Yes	20 (16.7%)	12 (10.0%)	32 (26.7%)		
No	30 (25.0%)	58 (48.3%)	88 (73.3%)	$\chi^2 = 4.97$ df = 1	0.026*
Total	50 (41.7%)	70 (58.3%)	120 (100%)		

*p<0.05, statistically significant

Table 6 represents the cross-tabulation between Nationality and primary motivation category. No significant association found between nationality and motivation category ($p > 0.05$). Altruistic motivations are dominant across all nationalities, suggesting universal intrinsic drivers among first-year medical students.

Table 6: Nationality and primary motivation category

Motivation category	Mauritius n %	Indian n %	South African n %	Others n %	Total n %	Chi-square/ df	P value
Altruistic	35 (28.7 %)	20 (16.4 %)	10 (8.2 %)	2 (1.6 %)	67 (54.9 %)		
Intellectual	8 (6.6%)	7 (5.7%)	3 (2.5 %)	1 (0.8 %)	19 (15.6 %)	$\chi^2 = 9.45$ df = 9	0.396[x]
Social/ Family	13 (10.7 %)	8 (6.6%)	5 (4.1 %)	0 (0.0 %)	26 (21.3 %)		
Prestige	4 (3.3%)	4 (3.3%)	2 (1.6 %)	0 (0.0 %)	10 (8.2%)		
Total	60	39	20	3	122		

[x]p>0.05, statistically not significant

Table 7 depicts cross tabulation between Family attitude and level of preparedness. No significant association between family attitude and preparedness ($p > 0.05$). Most students feel "somewhat prepared" or "neutral" regardless of family support level, indicating that intrinsic factors may play a larger role in preparedness.

Table 7: Family attitude and level of preparedness

Preparedness Level	Strongly Encouraging n (%)	Supportive but Neutral n (%)	Left to Me n (%)	Total n (%)	Chi square/ df	P value
Very prepared	4 (3.3%)	0 (0.0%)	0 (0.0%)	4 (3.3%)		
Somewhat prepared	25 (20.8%)	10 (8.3%)	2 (1.7%)	37 (30.8%)		
Neutral	20 (16.7%)	8 (6.7%)	5 (4.2%)	33 (27.5%)	χ^2 = 10.28, df = 8	0.246[x]
Somewhat unprepared	15 (12.5%)	8 (6.7%)	3 (2.5%)	26 (21.7%)		
Very unprepared	10 (8.3%)	6 (5.0%)	4 (3.3%)	20 (16.7%)		
Total	74 (61.7%)	32 (26.7%)	14 (11.7%)	120 (100%)		

[x]p>0.05, statistically not significant

A significant association exists ($p < 0.05$). Those who were "very aware" of challenges more frequently cited "making a mistake" as their biggest fear, while those "minimally aware" had more diverse concerns including financial and career uncertainty (Table 8).

Table 8: Awareness of challenges and biggest concern

Primary concern	Very aware n (%)	Somewhat aware n (%)	Minimally aware n (%)	Total n (%)	Chi square/ df	P value
Work life balance	12 (10.0%)	18 (15.0%)	5 (4.2%)	35 (29.2%)		
Making a mistake	20 (16.7%)	15 (12.5%)	2 (1.7%)	37 (30.8%)		
Stress	10 (8.3%)	12 (10.0%)	1 (0.8%)	23 (19.2%)	χ^2 = 12.89 df = 6	0.045*
Financial/oath	8 (6.7%)	10 (8.3%)	7 (5.8%)	25 (20.8%)		
Total	50 (41.7%)	55 (45.8%)	15 (12.5%)	120 (100%)		

*p<0.05, statistically significant

No statistically significant association was found between social responsibility motivation is consistently high across all community types, indicating it is a universal motivator not tied to upbringing environment (Table 9).

Table 9: Community Background and Motivation (Social Responsibility)

Social Responsibility	Urban n (%)	Semi-Urban n (%)	Rural n (%)	Total n (%)	Chi-square/ df	P value
Yes (Score 4-5)	25 (20.8%)	18 (15.0%)	30 (25.0%)	73 (60.8%)		
No (Score 1-3)	15 (12.5%)	12 (10.0%)	20 (16.7%)	47 (39.2%)	χ^2 = 0.42 df =2	0.812[x]
Total	40 (33.3%)	30 (25.0%)	50 (41.7%)	120 (100%)		

[x]p>0.05, statistically not significant

The motivations, preparedness, and early concerns of first-year medical students were examined through this mixed-methods study. The findings of the study revealed altruism to be the most common factor driving students to choose medicine (54.9%) whereas nationality was a significant motivational factor influencing their decision ($\chi^2 = 9.45$, $p = 0.396$). This was further reinforced by the qualitative responses, as the students constantly described medicine as a calling, a measure which enables them to help others and an effective and meaningful career of service.

The study revealed an important association between gender and specialty preference ($\chi^2 = 15.73$, $p = 0.008$). Specialties such as Pediatrics and OBG were more likely to be preferred by female students, whereas the male students preferred surgery and "other" specialties. According to the qualitative themes, this can be attributed to factors such as perceived role fit, comfort with patient populations, and preconceived notions or stereotypes that still prevail within medical fields. Furthermore, another important determining factor revealed was family background. Students were more likely to have prior exposure given that they had a family member in healthcare ($\chi^2 = 4.97$, $p = 0.026$). However, family attitudes' effect on perceived preparedness was not significant ($\chi^2 = 10.28$, $p = 0.246$). Owing to the qualitative data, it was found that instead of external encouragement, preparedness was largely shaped by personal academic readiness and expectations.

Students' primary concerns affected their awareness of medical challenges ($\chi^2 = 12.89$, $p = 0.045$). For instance, the ones who were "very aware" were fearful of making mistakes, whereas the ones with minimal awareness had a broader set of concerns, such as finances and work-life balance. Qualitative responses highlighted the shift from general worries to more specific fears of responsibility and patient safety.

Lastly, no difference was observed in terms of social responsibility across community backgrounds ($\chi^2 = 0.42$, $p = 0.812$). A constant narrative among the students from urban, rural, and semi-urban locations was a desire to contribute to society by supporting underserved populations.

Discussion

Taking a mixed-methods approach to the study of the motivations and concerns of first-year medical students can help to shed objective light on the motivations behind the choice to become a medical professional. The data supports the concern that while intrinsic motivations are a major reason that students are pursuing medical training, these are being seconded to a set of extrinsic motivations.

The altruistic motivation factor was found to be the most prevalent quantitatively, with no significant difference across nationalities. It thus appears that altruism is a universal motivator among first-year medical students, regardless of cultural or geographic background. This is strongly supported by the qualitative findings, wherein students spoke of medicine as a calling based on empathy, compassion, and serving others. Participants clearly enunciated a sense of meaning and fulfillment derived from assisting patients, which suggests that altruistic motivation is not simply an aspiration but an internalized one. In this regard, the results are similar to those obtained by Lefevre et al., who identified altruism and service orientation as consistent motivators across diverse student populations [13]. At entry to medical school, altruistic motivation is high, which reflects their early phase of medical education. Evidence suggests that students often display strong idealistic and service-oriented values at entry. However, as training progresses, empathy and related prosocial orientation may decline. This indicates that the strong intrinsic motivation observed in first-year students represents an important phase that may benefit from active curricular support [13].

Apart from altruistic beliefs, intellectual curiosity and intellectual challenge also stood out as significant within the intellectual motivation category. Themes associated with science, curiosity, discipline, and achievement highlighted the intellectual demands of the medical field, which attracted students to the profession. These findings resonate with prior evidence showing that medical students' motives commonly include intellectual interest alongside humanitarian intent [14].

Intrinsic motivations were prominent, though extrinsic pressures like financial security, professional respect, and career stability were also recognized. The analysis suggested that investigation and community-oriented motivations were mentioned less often than other motivations. The examination of the narrative elements indicated that financial and professional gains were viewed mainly for their pragmatic value. This supports evidence that external and intrinsic motives often coexist and can jointly shape career preferences rather than compete. In addition, Zhang et al. reported that altruistic orientation can be associated with preferences for non-financial job attributes, supporting the interpretation that pragmatic considerations may function as reinforcers rather than replacements for prosocial motivation [15]. A notable difference across studies is observed in later-year students, who report stronger lifestyle and financial priorities likely due to increased workload, training, and career realities compared to first-year medical students [16].

Gender differences in specialty preference were observed, whereby female students expressed greater interest in Paediatrics and Obstetrics and Gynaecology, while male students expressed a greater preference for surgical specialties. Findings from the present study indicate that gender differences in specialty preference may be linked to perceptions of roles, comfort levels with patient populations, early exposure to specialties, and specialty stereotypes. The current results align with evidence from Asaad, et al., whose findings highlight persistent gender patterns in specialty preference and the role of contextual factors shaping early specialty choices [17]. These patterns are also consistent with reports internationally, even at early stages of training. However, some evidence suggests that lifestyle expectations and perceptions of specialty culture contribute to specialty selection and may interact with gender, which can help explain why surgical fields remain more commonly preferred by male students in many settings. Where studies report weaker gender differences, this is often discussed in relation to wider early exposure and institutional mentorship, suggesting that educational environments may modify early preferences rather than simply reflect fixed differences [17]. Similar findings were reported by Roy B, et al in a study conducted in Nepal, where Surgery was the most preferred specialty among male students, whereas medicine, followed by OBG was preferred by female students [18]. A study conducted in Nepal by Banerjee I, et al. showed that students who preferred Anatomy intended to pursue Surgery as a future career [19].

Family background was another important consideration that contributed to early exposure to healthcare. The findings suggest a significant relationship between having family members in healthcare and early exposure to healthcare, indicating that family access can facilitate early learning. Nevertheless, family attitude was not significantly related to students' perceptions of being ready for medical school. It appears that readiness for medical school was shaped more by personal academic expectations than by external influence through family attitude. This interpretation is supported by literature showing that role models and exposure influence students' specialty and career thinking, while preparedness

for professional activities develops through training experiences and self-perceived competence rather than encouragement alone [20-22].

Students' recognition of challenges associated with medical training was related to their main worries. Students who expressed stronger recognition of medical challenges were most concerned about making mistakes, while those with lower awareness described broader concerns, such as finances or work–life balance. Student narratives illustrated a transition from general worries to more specific concerns about patient safety and personal responsibility. This reflects early development of professional identity, and error-related concerns have been reported as common during training and closely linked to learning and responsibility [23].

Worth mentioning is that social responsibility appeared consistent across urban, rural, and semi-urban backgrounds. Moreover, the qualitative data supported this pattern, as students across community settings expressed a desire to contribute to society.

In aggregate, these results point to a conceptual framework of medical career choice in which intrinsic motivation serves as the bedrock, influenced by extrinsic forces, social engagement, gender roles, and professional socialization. The integration of qualitative and quantitative findings highlights the importance of promoting intrinsic motivation through mentorship, reflection-based learning, and supportive learning environments. Medical school curricula that address emotional readiness, professional role development, and balanced exposure to diverse medical specialties may play a pivotal role in supporting students' career decision-making.

Conclusion

In conclusion, the study indicates that first-year medical students choose medicine primarily due to intrinsic motivation factors, including altruism, compassion, and a sense of personal calling. While extrinsic factors such as career stability, financial security, and social status also influence decision-making, they function as a reinforcing influence rather than primary driving forces. Early differences in specialty interests and concern profiles reflect the impact of socialization, perceived role fit, and awareness of professional responsibility.

Abbreviations

Strengthening the Reporting of Observational Studies in Epidemiology (STROBE), Obstetrics and Gynaecology (OBG), Statistical Product and Service Solutions (SPSS), Average congruency percentage (ACP)

Acknowledgements

Navita Jatain, Rudraksh Sharma, Shradha Banerjee, Krishna Dodia, Sanjay Kumar Deshwali, Bedanta Roy and Indrajit Banerjee have contributed equally to the work and should be considered as co-first authors of this manuscript. We are thankful to Professor Dr. A.P.Singh, Principal, SSR Medical College, Mauritius, for constant encouragement to conduct this research. The authors would like to acknowledge all the first-year medical students at Sir Seewoosagur Ramgoolam Medical College, Mauritius, who participated in this study. We are grateful to the Institutional Research and Ethics Committee of SSR Medical College for giving us the permission to conduct this study.

Authors' contribution

a. Study planning: IB
b. Data collection: SKD
c. Data analysis/ interpretation: SKD
d. Manuscript writing: NJ, RS, SB, KD, SKD, BR, IB
e. Manuscript revision: NJ, RS, SB, KD, SKD, BR, IB
f. Language/ Grammar editing: SB
g. Final approval: NJ, RS, SB, KD, SKD, BR, IB
h. Agreement to be accountable for all aspects of the work: NJ, RS, SB, KD, SKD, BR, IB
i. Supervisor: IB
j. Co Supervisor: SKD

Funding

No funding was received for this study.

Availability of data and materials

All data underlying the results are available as part of the article.

Competing interests

The authors declare that there are no conflicts of interest to disclose in relation to this manuscript.

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