

THE IDEAL MEDICAL STUDENT: THE NIGERIAN TRAINEES PERSPECTIVE.

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ABSTRACT

Introduction: Medical school serves as a training ground and entry path to the dignified profession of medical practice. As a result, the training is rigorous, wholesome and exhaustive.

It aims to raise students who are capable of handling the pressure associated with being a physician, equipped with the knowledge and critical thinking skills required to successfully manage patients as well as the discipline, strength and character needed to uphold the tenets expected of a physician. Medical school more often than not becomes, not just the first exposure to tertiary learning, but coupled with the unique intricacies of the medical field, becomes a new, unprecedented, multifaceted experience in the lives of medical students. There is no explicit guideline dictating who the ideal medical student is or what characteristics are expected of him or her. Various authorities have described some qualities expected of the ideal medical student with noticeable overlap, as skills such as good academic ability, critical thinking, a sense of responsibility and effective communication being the most recurring.¹ An ideal medical student is all at once, a great student and a great medical personnel. Colloquially, it is expected that a medical student be an all-rounder.

The objectives of this commentary therefore are;

1. To outline who an ideal medical student is.
2. To outline the challenges of Nigerian medical students.
3. To enumerate possible solutions to the challenges.

The Nigerian Medical Students' Perspective

The average medical student in Nigeria is accustomed to only studying about cutting edge technologies and medical advancements. It has become somewhat unusual or is considered an opportunity to experience technologically based interventions that have become commonplace in advanced climes. Furthermore, owing to the unstable socio-political and economic climate, the studies of medical students are often interrupted by industrial strike actions from the various unions involved in the education of medical students in Nigeria.

Another important factor of note is the lack of stable amenities such as water and electricity, and limited infrastructure like housing. Working around these, as well as seeking personalised alternatives directly and indirectly negatively affect the ability of a medical student to emulate the ideals expected of him or her. In addition, the superstitious sociocultural view of not freely disclosing personal information which is prevalent among patients in Nigeria and the language barriers owing to the varied multi-lingual and ethnic picture in the nation with lack of universal ability to converse in English may hamper the efforts of a medical student.

Conclusion: The end goal of medical school is to produce students who are qualified to take the Physician's Pledge, and capable of embodying the qualities contained within. The ideal medical student is one step closer to becoming an ideal medical practitioner but for this to occur, careful guidance from their trainers and a conducive environment is of utmost importance.

Keywords: Ideal medical student, Medical school, Nigerian, Trainee

INTRODUCTION

A medical student is an individual pursuing a course of study that culminates in a qualification as a doctor of medicine.¹ This is pursued at tertiary colleges known as medical schools. It is done in two parts; preclinical

and clinical/medical school. In our climes, both arms are considered as "medical school". (Figure 1). In other climes such as the United States of America, only the later arm is considered medical school.

Notwithstanding, the ideals expected of a medical student are largely unchanging irrespective of the arm. Medical school serves as a training ground and entry path to the dignified profession that is medical practice. As a result, the training is rigorous, wholesome and exhaustive. It aims to raise students who are capable of handling the pressures associated with being a physician, equipped with the knowledge and critical thinking skills required to successfully manage patients as well as the discipline and strength of character needed to uphold the tenets expected of a physician.² Medical school is often, although not always, the first exposure aspiring candidates get to the intricacies that come with the world of medical practice. It is a peculiar time in the lives of these aspiring medical doctors because, although it is a journey they embark on equally alongside other bright minds, it is not one they all start on an equal platform. For some, being a medical student is the next path following completion of their secondary education. They are green, unexposed but hopeful. For others, a detour is taken when they fail to secure a coveted slot as a medical student, giving them the opportunity to amass more experience in life than their aforementioned counterparts. For others still, the desire to study medicine is realised much later such that they come into medical school equipped with experience from their previous career(s). Of these three groups, the largest proportion comprises medical students who pursue medicine as a first degree. As a result, medical school more often than not becomes, not just the first exposure to tertiary learning, but coupled with the unique intricacies of the medical field, becomes a new, unprecedented, multifaceted experience in the lives of medical students.³

The minimum amount of time apportioned to being a medical student in Nigeria is six years. Owing to external influences however, such as strike actions and more recent times, global pandemics, that period can be lengthened. Regardless, the designated time provides medical students with ample opportunities to imbibe all the qualities of an ideal medical student as well as the minimum knowledge required for qualification as a medical doctor.

There is no explicit guideline dictating who the ideal medical student is or what characteristics are expected of him or her. This absence of explicitly defined roles has been noted to contribute significantly to the pressure experience in medical school.⁴ Despite this, it can be inferred that what would be the ideal medical student would vary based on the stakeholders he or she is interacting with, which include, but are not limited to the medical doctors who serve as esteemed teachers, the patients who provide practical learning opportunities, the administrative body and the sponsors. Multiple authorities have described some qualities expected of the ideal medical student with noticeable overlap in the various descriptions. An ideal medical student is all at once a great student and a great medical personnel.

Colloquially, it is expected that a medical student be an all-rounder. Medical school aims to train students that are well-versed beyond academics. It begs the question of what being an all-rounder would entail, particularly in the medical field. Is learning the literature and understanding the practical applications enough? Do interpersonal skills account for much or anything?⁵

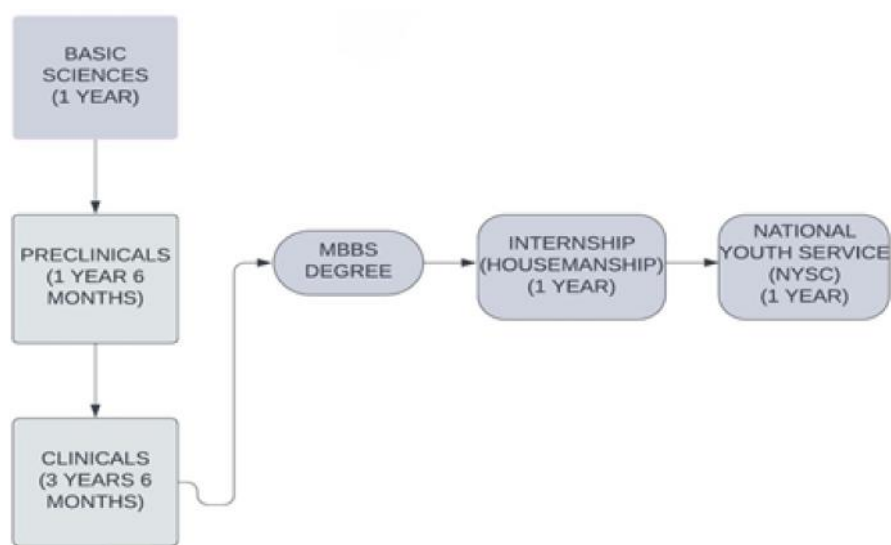


Fig. 1: Overview of stages in medical training for obtaining a permanent medical license in Nigeria.

In a situation where a student's grasp on knowledge is incontrovertible, should it matter that he or she is not disciplined? These are all valid questions one must consider when outlining who qualifies as an ideal medical student. Unfortunately, with no explicit consensus on what qualities an ideal medical student must unquestionably possess, there is little that can be inarguably stated on these considerations. Notwithstanding, popularly, an ideal medical student is considered to be one with unimpeachable skills in character and learning. As such, the aforementioned questions cannot be trivialized. Rather, it begs the question of just how much character should be considered and what tenets under character are applicable. Furthermore, the question of whether or not these tenets are equally weighted arises. Based on what has been popularly published on the subject, it appears as though in comparison to learning, character is considered just as deeply if not more, as it is more frequently featured in publications than learning and academic excellence are. On the other hand, arguments can also be made that unimpeachable knowledge is an absolute requirement of any medical student and as a result, it is not considered as necessary to continually reiterate this condition.

Nonetheless, a medical student is first a student, and must be dedicated to learning when student-hood alone is under consideration. To achieve this, a medical student must be studious and well-versed. In medicine, practice and literature must go hand in hand. As such, an ideal student is one who studies the recommended texts, understanding what applies locally in his or her region as well as what is done in other climes. This must then be consolidated with practical experience by observing and assisting the seasoned professionals as they manage patients, and when possible, performing what they have learned. Medicine is after all popularly considered an apprenticeship. The background knowledge obtained from texts, didactic lectures and all other resources in combination with the hands-on practical experience aim to solidify the knowledge being passed across in medical school. Unfortunately, there are a vast myriad of diseases and medical conditions. Far too many than can be accounted for in an in-depth manner in the curriculum of a medical student. Thus, an ideal medical student is one who continually seeks to eradicate this gap by doggedly pushing himself or herself to know more literature as well as experience more practical scenarios on as many cases as possible beyond what is simply covered by the curriculum. (Figure 2). Simply put, an ideal medical student must have an unquenchable thirst for knowledge.



Fig. 2: A trainee, carrying out documentation of her clerkship.

An ideal medical student is also expected to recognize and understand that he or she is not a medical doctor, however, they may become one in future. As a result, one is expected to imbibe the characteristics expected of a medical doctor. Those enumerated in the Physician's Pledge may be considered a foundation to draw on.⁶ Medical school provides an ideal ground to learn and practise these traits. In anticipation of the future, an ideal medical student must begin to cultivate the habit of thinking critically, managing oneself and one's environment, harnessing excellent interpersonal communication skills and admirable work ethic. A medical student must learn the intricacies of inter-professional relations when the need for such consults arise in addition to acquiring the wisdom on how to discern what a patient means from what they say and how it contributes to the diagnosis. An ideal medical student must invariably learn how to manage sociocultural implications that impact medical care, especially in an environment where the sociocultural climate strongly influences what patients disclose and furthermore their acceptance of medical care.

In light of this, a certain level of psychological maturity is required.⁷ An ideal medical student must mentally be more mature than his/ her average non-medical counterpart. The ability to efficiently understand and manage external factors, ranging from sociocultural beliefs to patient factors, are indispensable skills that must be closely observed when displayed by the medical teachers, and carefully cultivated subsequently to ensure successful encounters with patients. It is no secret that medical students often complain that patients do not disclose the complete details of their case during clerking, sometimes despite adequate probing and yet readily volunteer this information once they start interacting with a medical doctor. This is because they are yet to acquire the skill of teasing information out of patients as well as the psychological maturity required to instill a sense of confidence and trust in

patients. These are all ideal skills a medical student must pick up over the course of medical school.

Furthermore, discipline and doggedness are required of a medical student, both to ensure a successful medical school experience and subsequently, a successful career as a medical doctor. The sheer bulk of material to study in addition to the fast pace and demanding clinical schedule has made discipline a necessary habit for medical students. Doggedness in the face of daunting tasks and the unavoidable occasional failures is also necessary in an ideal medical student. It cultivates strength of character and a willingness to pursue self-improvement.

With the medical doctor serving as an ideal to draw from, the characteristics of an ideal medical student can be summarily thought of as cultivating those of a medical doctor in addition to those of a student. Learning in the medical field is an active never-ending pursuit. Thus, we can infer that junior medical doctors are also students in some form to senior colleagues. It is logical to extrapolate that the ideals of a medical student are those of a medical doctor, however with different levels of emphasis laid on the various ideals. (Figure 3). A clear example of this can be seen when considering studiousness and psychological maturity. Both are undoubtedly qualities expected of a medical doctor as well as a medical student. However, these qualities are required of both in differing measures. A lower level of psychological maturity is forgivable in



Fig 3: Medical student interacting with a paediatric patient

a medical student in a manner that may not be acceptable of a medical doctor. On the other hand, studiousness is more prized and of greater import in a medical student than it is in an already qualified medical doctor. What metric thus determines what ideals should be regarded highly or lowly in a medical student than it would be in a medical doctor? It is

impossible to say with any authority. Perhaps, it would largely depend on the specific environment one finds oneself in.

THE NIGERIAN MEDICAL STUDENTS' PERSPECTIVE

In our environs, the average medical student is typically smartly dressed yet lacking a befitting carriage which belies an absence of years of experience. He/she often appears exhausted yet perpetually irrepressibly eager to observe and partake in medical or surgical procedures. A medical student, in many ways, is a walking contradiction. Over the course of study, medical students closely interact with the administrative body of the institution they study at, their colleagues, healthcare workers, tutors, and patients and relatives. These interactions largely shape the medical school experience and may serve as positive or negative influences.⁸

They include:

1. Institutional Factors

Medical students, despite everything else required of them, are first students. Unfortunately, their studies are subject to a myriad of external influences.⁹ It is said that no other student suffers from industrial strike actions quite like medical students. In our climes, the studies of the non-medical student in a government-owned tertiary institution is interrupted fairly frequently by strikes actions of non-teaching staff as well as those of teaching staff unions. For medical students, this is further compounded by strike actions undertaken by professional health care workers such as the Nigerian Medical Association (NMA), Nigerian Association of Resident Doctors (NARD) and even by Joint Health Sector Union, Nigeria (JOHESU). In acknowledgement of how strongly these factors can affect medical students' education, allowances have been made such that medical students are still able to continue learning by undergoing clinical rotations when Academic Staff Union of Universities goes on strike. This is largely possible because a great percentage of the time spent in medical school is constituted of clinical rotations which do not particularly fall under the purview of these unions. However, for similar reasons, strikes involving the NARD or JOHESU cannot be circumvented in such a manner. As a result, medical students frequently experience a halt or fall in the pace of their clinical learning process when either of these organisations go on strike, which happens fairly regularly in our climes due to government's refusal to fulfil agreements.

Furthermore, and perhaps peculiar to our environment, is the lack of current or cutting-edge medical equipment, often due to lack of funds. This results in



Fig 4: Medical students in the theatre complex after a long the day's theatre session.

paucity of clinical experience on what the leading modalities of management of certain diseases are. It also creates a potential pitfall of exclusively relying on and only considering the tools one is familiar with even when in situations where better options are available.

2. To fellow medical students.

Medical students are friends and foe to one another. They are comrades undergoing similar training. They understand one another better than anyone else. This forges a sense of camaraderie amongst them. It lays the groundwork for a symbiotic relationship characterized by shared struggles, mutual support, communally celebrated triumphs and a deep sense of understanding. (Figure 4). Properly cultivated relationships with colleagues provide a myriad of positive outcomes.

However, interactions with colleagues can also be markedly negative. Medical students are forced to compete against one another for the limited opportunities available in medical school which include but are not limited to the opportunity to perform or assist in clinical procedures, the opportunity to partake in research and the opportunity to attend prized conferences. These make for a dynamic relationship between colleagues as while they are comrades in arms, they are also at arms. This often causes significant psychological stress. The stress that derives from having to compete for opportunities has been noted to contribute to a higher prevalence of burnout among medical students.^{10,11} The ideal medical student is one who displays good sportsmanship, is fair and understands that any grievances experienced are not and should not be intentionally and maliciously inflicted.



Fig 5: A group of final year medical students making a pose with a lecturer at ISTH Irrua, Edo State.

Medical students, at the end of the day must learn how to navigate these unique situations and acquire the ability to lay hostilities aside when unnecessary and rely on one another for strength, for information and for support.¹²

3. Interactions with Healthcare Workers

One of the peculiarities of medical school is that healthcare workers also serve as teachers and mentors. (Figure 5). This does not just entails the common didactic lectures observed in many other courses of study, but rather, it is a fusion of bedside teaching, self-directed learning, character-shaping and the traditional didactic lectures. This creates a system wherein healthcare workers are not viewed as teachers in its simplest meaning, but rather as trainers, mentors and guides. As such, the Hippocratic Oath likened them to parents, with consideration given to the wide range of guidance they offer which greatly exceeds just academic support, it is not far-fetched that they are so likened. However, in a similar vein, healthcare workers have been perceived to have exerting unforgiving standards by medical students. This is to be expected as it is the first exposure of medical students to the conscientious standards medical personnel must hold themselves to in order to ensure optimal patient care. Healthcare workers must also in the same manner take into consideration that this is the medical student's first exposure to such standards and thus, a kinder but firm approach may be required.

It is also the first exposure to the peculiarities of interdisciplinary and inter-professional relations. Medical students are thrust into this delicate world of tenuous and careful interactions, however with simple gestures some of these are surmountable.¹³ They lack any standing but are viewed in a manner that is often coloured by how the other individual perceives their future profession in inter-professional interactions or the discipline they hope to specialise in during interdisciplinary interactions. Inter-professional and interdisciplinary rivalry, although not as frank as it is between healthcare workers alone, comes into play creating a potential landmine of social faux pas and offended sensibilities. This contributes to the negative experiences medical students undergo during studies.

4. Interactions with the patient and Relatives

The interactions between the medical student and a patient is perceived to have little impact on the management of the patient. However, it is believed to have enormous influence on the training medical students undergo. Patients' interaction is crucial to the medical school experience, providing a means to further knowledge by inciting the student to go back to texts and read up on cases not well understood or

recalled, consolidate acquired knowledge through observing practical management of cases and providing an avenue to elicit signs and manoeuvres learned. (Figure 6). Unfortunately, patients are often reluctant to converse with medical students as they view it as a waste of their effort and time. They believe it is



Fig. 6: A medical student performing a physical examination on a patient

superfluous to their management even at initial presentations when medical students are their first point of contact. As a result of this, patients frequently refuse to interact with medical students or disclose false information to them, thus forcing the attending physician to repeat the entire clerking process which is wholly inefficient, more so, in our climes where the physician to patient ratio is glaringly embarrassing (1: 9000) in comparison to the recommended 1: 600 from the World Health Organization.¹⁴ In addition, it makes the medical student appear incompetent. Over time, this causes medical students to develop a reluctance to clerking, especially in cases where the patient is a well-known patient of the managing unit and thus already has a definitive diagnosis. This compounds the situation, resulting in a false view that the medical student as both incompetent and unwilling to gain said competence by persevering but has instead chosen a lazy path. It would be remiss to not say that some of the fault in such a situation may lay on the medical student. Two of the competencies that must be acquired over the course of medical school are psychological maturity and interpersonal communication skills. However, it would be difficult if at all possible to attain those skills in a situation where they are constantly being actively thwarted.

5. Research internship.

As the practice of medicine is an ever evolving field, breakthroughs in research are needed to narrow the knowledge gap, medical students are physicians in the making who will need to make decisions informed by data driven evidence¹⁵ and medical school is a solid ground to imbibe these qualities. Research internships provide a wide array of opportunities where medical

students can learn research writing, research ethics, grant application, laboratory skills, data collection, etc. The integration of research into the medical curriculum in Nigeria has been faced with lots of challenges such as lack of exposure to research, limited time for research exposure, lack of longevity of studies, unavailability of laboratories dedicated to research, inadequate reagent for proper hands-on experience, inadequate training personnel, etc. laboratory based research are almost impossible to come by. The few laboratories solely dedicated to research offer very competitive internship slots with minimum internship duration. The structure of our medical program is not flexible making it difficult to spend an extended period of time in such institutions. Research writing including how to select paper, materials, grant applications are important skills to acquire and little emphasis is placed on learning this. In schools where students are fortunate to be taught, there is hardly feedback on performance or repeated exposure to such training. All of these and more lead to poor research exposure in medical students.

6. Extra-curricular.

The soft skills needed to become an ideal medical student cannot be acquired within the four walls of the hospital, these skills are imbibed and expressed through the various extra-curricular activities a medical student chooses to be a part of. Studies have shown that volunteering and participation in extracurricular activities lead to the improvement of soft skills and the academic output of medical students.¹⁶ These activities also provide a break from the rigors of medical education such as stress (Figure 7), and expose the medical student to life outside medicine.

The uniqueness of medical education is in its ability to build leadership qualities into each student, students at various point in their education are given opportunities to act as group representatives, hence, learning teamwork, interpersonal skills, and conflict resolution which help them to become good doctors.

Extra-curricular like social clubs provide an opportunity to see the world outside medical practice and provides a more holistic way of interacting with patients and their relatives, volunteering provides opportunities to build on and practice skills learnt on the ward, this will help improve learning, creating a well-rounded medical student.

The Way Forward

It has been observed that how well a medical student fares serves as a reliable predictor of how well he or she will handle the pressures associated with being a medical doctor.¹⁷ Historically, medical students have endured much worse conditions than the current times pose.⁴ The improvement is highly commendable, however there is still work to be done. It is pertinent that medical students are thoroughly trained in such a manner that enables them to embody all the characteristics stipulated in the Physician's Pledge that they will take upon successful completion of their medical school journey.¹⁸ It is also highly important that this occurs in a positive manner such that the stressors they face do not culminate in poor coping mechanisms which they will undoubtedly find themselves falling back on even as medical doctors.¹⁰ In order to avoid producing such doctors, active care and attention must be paid to interactions with medical students such that patients are continuously being made



Fig 7: Medical students after a long day in clinic.

to understand the importance of their interactions with these students as well as how crucial it is that they are honest and forthcoming during history taking. Furthermore, in cases where medical students continually seem to struggle or fall short of expectation, careful examination of the situation to discover the underlying reason, if any must be done. Additionally, students must overcome the fear of potential ridicule and the challenges posed by diverse patient characteristics. Doing so not only builds character but also enhances exposure to a variety of patient types.¹⁹ Research training should be ingrained into the medical school curriculum, and medical students should also be encouraged to set time aside for leisure activities and extra-curricular.

What makes a medical student ideal?

According to United Kingdom's Medical Students Council, an ideal medical student must possess the following characteristics:²⁰

1. Motivation
2. Insight
3. Organization skills
4. Academic ability
5. Critical thinking
6. Sense of responsibility
7. Effective communication
8. Empathy
9. Resilience

These attributes have been described as indispensable to the medical school experience and also as a medical doctor post-graduation. The National Health Service, United Kingdom further adds that professionalism during training for qualification as a medical doctor and afterwards, is a prized ideal all its members must emulate, and this has also been found useful as an ethical consideration during research.^{16, 21} Conscientiousness has also been identified as a key habit required for success for medical students. Students lacking in conscientiousness or with high levels of gregariousness have been noted to significantly have lower chances of successfully overcoming the hurdles faced in medical school.¹⁵

The ideal medical student must be motivated, resilient in pursuit of knowledge, respectful and empathic in dealing with colleagues, patients, and healthcare workers, adaptable, and responsible in dispensation of all tasks assigned to him or her (Figure 8).^{22, 23} They must constantly seek improvement in all aspects and must display integrity and discipline. This can only occur in a suitable environment. Administrative bodies as well as the healthcare personnel must actively seek to create an environment that allows for the inculcation of these attributes as medical students will otherwise



Fig 8: Medical students paying keen attention during a surgical procedure.

develop anxiety and stress disorders or burnout, with a significant number being reported to attempt suicide.²⁴ Wellness programmes have been introduced in medical schools in some western countries to counteract this. The extreme negative effects of an unconducive environment are not as common in our clime.

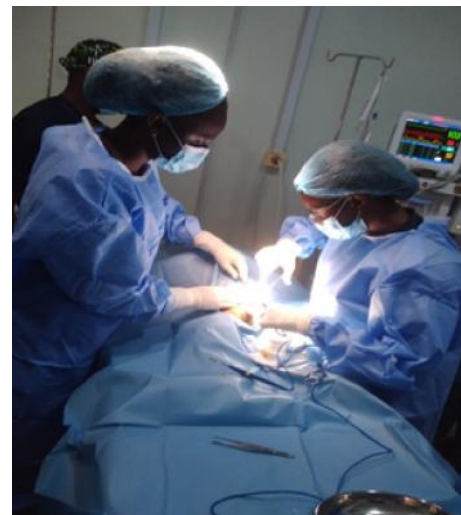


Fig 9: A medical student assisting in a Hernia operation.

However, it is no excuse to not improve and provide the most suitable environment for medical students to thrive.

CONCLUSION

The ideals prized in a medical student are subject to interpretation and although there is no generally agreed upon criteria of what makes one an ideal medical student, there are attributes that have been repeatedly praised in medical students such as good academic ability, critical thinking, a sense of responsibility, and effective communication skills. These are skills that make a medical student closer to the ideal. Absence of these skills make medical school a tougher experience with reduced probability of successful completion.

It would also not be remiss to say that the ideal medical student is expected to be an emulation of the ideal medical doctor. This is to be expected as the end goal of medical school is to produce students who are qualified to take the Physician's Pledge and capable of embodying the qualities contained within.²⁵ The ideal medical student is one step closer to becoming an ideal medical practitioner² (Figure 9), and can only grow with careful guidance from their trainers and a conducive environment.

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