



Students' Perception about the Influence of Medical Education on Medical Students in Anatomy Department

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ABSTRACT

Introduction: Medical education has both positive and negative impact on the medical student. Initially the subject of anatomy and later other disciplines create mental and emotional stress for many students. Nevertheless, medical education is imperative in developing highly professional doctors.

Aims and Objectives: This research is aimed to study the effect of medical education on the personality and behavior of 2nd year medical students in Anatomy Department.

Place and Duration of study: This study was conducted at the Anatomy Department of Azra Naheed Medical College Lahore (Dec 2022-March 2023).

Material and Methods: This cross-sectional study was conducted on 62 medical students 2nd year MBBS. An electronic google form was developed which consisted of 20 questions to study the student's perception about influence of medical education. The form was posted in the official class Whatsapp group. To avoid potential contamination bias, google form was designed so that one participant could fill the form once by using only email ID assigned by medical college administration. Data was collected and analyzed by Python programming language (Version: 3.10), Pandas and Scikit-learn.

Results: Recent research showed that 87% of medical students felt that medical education has great impact on their personality moreover 80% students realized that they became emotionally intelligent during life in medical college. 95% of students agreed that a lot of stress is induced by medical education in their lives and 80% students raised the bad impact of medical education such as health issues and improper routine life. 75.8% of students thought that education in medical college polished their personality. Moreover 79% of students felt that medical education has a positive impact on their life.

Conclusion: It was concluded that medical education has positive and negative effects on the personality of medical students. It is the students' perception that their mental, physical & social health is badly affected. Medical students feel that empathy, humanity, dignity & emotional intelligence are the positive changes in their personality. The role of faculty members is also appreciated by the students.

Key Words: Medical education, influence, medical students, stress, faculty members, personality.

INTRODUCTION

A pre-medical student struggles hard to get admission into medical college. After getting admission, the lives of medical students become more challenging because medical students have to face academic and non-academic problems, exam related stress and adjustment issues. Usually medical students adopt unhealthy life style such as

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lack of sleep, improper diet, increased intake of tea/coffee, no physical activity and smoking. As a result, quality of life of medical student is negatively affected because of high study load especially anatomy. Stress and depression are much higher in 1st and 2nd year medical students as they find it difficult to adjust in medical profession, with the passage of time they become emotionally intelligent and stable to face the academic and nonacademic issues¹.

Stress is also experienced by medical students while learning anatomy. Stress is a major problem which has negative effect on cognition of medical students². Therefore, both positive and negative effects of medical education are impacting the life of medical students. Students usually adopt different strategies to overcome stress & depression during life in medical institutes. Physical activities (gym & outdoor games), participation in social activities, mentoring & counseling from faculty members are

helpful in adjustment of medical students in medical profession³.

Positive and negative effects of medical education on personalities of undergraduates are directly responsible towards building attitudes & behavior of young doctors.

Nowadays, mental and physical health issues of medical students have been increasing which developed the interest of the researcher while teaching Anatomy.

Aim of Study:

To study the effect of medical education on the personality of medical students in Anatomy department.

MATERIAL AND METHODS

The Ethical Review Board of Azra Naheed Medical College Lahore authorized the study vide (00-01-09-2022). The study design of this research was cross sectional and the sampling method was nonprobability convenience. The study was conducted on 2nd year MBBS students Anatomy department Azra Naheed Medical College Lahore. An electronic google form was developed by the authors of this research which consisted of 20 questions. The form was posted in the official WhatsApp groups of 2nd year M.B.B.S class. To avoid potential contamination bias, google form was designed so that one participant can fill the form once by using only email ID assigned by medical college administration. Data was collected and analyzed by Python programming language (Version: 3.10), Pandas and Scikit-learn. Research protocol was formally approved to evaluate the Perception of students regarding influence of medical education based on statements, ranked by them on the likert scale as Strongly agree, Agree, None, Disagree, Strongly disagree (Table-1).

Sr. No	Question	Strongly Agree	Agree	No. Response	Disagree	Strongly Disagree
Q1	Medical Education during M.B.B.S has great impact on the personality of medical student.	16	38	6	1	1
Q2	While studying in medical college, I become emotionally intelligent.	28	22	8	3	1

Q3	Lots of stress and tension associated with tough medical studies is experienced during life in medical college.	15	41	4	1	1
Q4	Health issues, home sickness & improper routine life pattern are associated with life in hostel of medical college.	16	34	8	3	1
Q5	Patient care help the needy & teamwork learned during medical college life.	23	29	7	2	1
Q6	Parent relationship & bonding with Allah become strong during medical studies.	17	37	7	0	1
Q7	Mental health is badly affected during medical studies.	23	27	10	2	0
Q8	Self-Carelessness, addiction of tea and coffee, poor eating habits, fear of failure are gifts of medical life in medical college.	15	38	6	2	1
Q9	Social work, peer relationship, helping others are developed during medical life in medical college.	29	21	7	4	1
Q10	My teachers had great influence on my personality.	21	26	11	1	3
Q11	Faculty members of medical college guide me a lot regarding studies and my life.	17	24	14	5	2
Q12	My Life is totally changed after entering in medical college regarding my	24	27	9	1	1

	personality.					
Q13	Faculty members of medical college focused on conceptual studies & Clinical application of medical knowledge.	30	18	11	1	2
Q14	Some of my teacher are my role model for my medical profession.	30	23	6	1	2
Q15	Medical education in medical college helped me in becoming a well behaved, stable & mature personality.	28	23	7	2	2
Q16	Medical education not only enhanced my medical knowledge but also make be able to become part of most noble profession.	27	26	7	1	2
Q17	Medical education in medical college polished my personality and now I find myself most respectable family member.	23	24	12	1	2
Q18	Few faculty members of medical college had point out my bad habits which was turning point of life, after their counseling now I was.	14	17	19	9	3
Q19	I feel that medical education have positive impact on my life.	23	26	9	1	3

Table-1: Statements To Gauge Student's Perception about the Influence of Medical Education

RESULTS

The slide & graph shown in Fig-1 is about the response of 2nd year MBBS students to questions regarding influence of medical education on

personality of medical students .Options were strongly agree, agree , no response , disagree and strongly disagree for 19 questions and all the questions were closed-ended where as students had to give comments about their experience in question 20 which was open-ended. 87% of students gave positive response to the question about great impact of medical education on their personality. 80% students in recent research realized that they became emotionally intelligent during life in medical college. 95% students agreed that lot of stress is induced by medical education in their lives and 80% students raised the negative impact of medical education such as health issues and improper routine life.

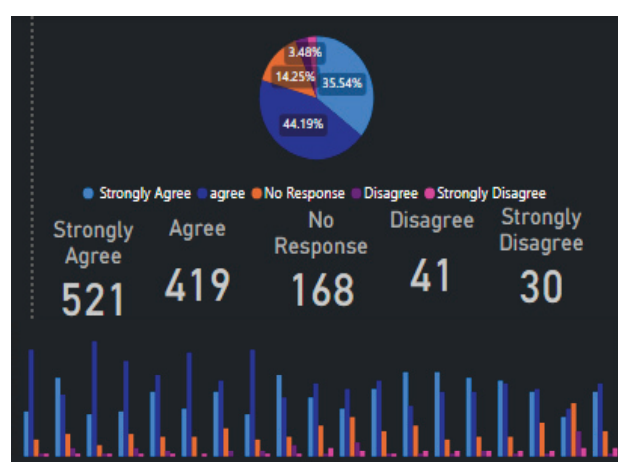


Fig-1: A graphical response of students to questions regarding influence of medical education on their personality.

80% student's mental health was badly affected & 85.4% students believed that Self-Carelessness, addiction to tea and coffee, poor eating habits, fear of failure are gifts of medical life in medical college. 83.8% students realized that patient care, help the needy and teamwork are qualities which they gained during medical life in college. 75% students significantly realized the influence of teachers in medical education and 66% students appreciated the guidance of faculty members in studies. 85.4 % of students found faculty members as role models in medical field. 82% students thought their life totally changed after entry in medical college ,82% students realized that they became well behaved, stable and matured similarly 85.4% students appreciated the role of medical education in not only imparting medical knowledge but also enabling them to become part of most noble profession. 75.8% of students thought that medical education in medical college polished their personality, moreover 79% students felt that medical education had a positive impact on their life.

DISCUSSION

Even if the medical doctor is well versed in basic medical sciences and well trained in various clinical disciplines a patient seeks a wise humane health professional who can understand his problems and treat his/her health issue in better way. Personality and behavior of health professionals are also important domains of medical education in medical colleges⁴. Recent research showed the perception of medical students about the influence of medical education on their life. Most of them realized that they became emotionally intelligent, well behaved and matured. Similarly a significant number of students appreciated the role of medical education in not only imparting medical knowledge but also enabling them to become part of most noble profession. Providing an excellent level of basic & clinical knowledge and skills, supportive educational environment and development of humanistic behavior with patient centered approach are the goals of medical colleges. Role modeling is a powerful educational tool to develop professionalism, moral values and attributes in medical doctors⁵. In present research, 83.8% students realized that patient care, helping the needy and teamwork are qualities which they gained during life in medical college. 85.4 % of students found faculty members as role models in the medical field. Wright et al. described the definition of role models as a physician who enjoys teaching and puts substantial effort for active learning of students. He/she emphasizes doctor-patient relationships and focuses on psychosocial aspects of patient care in their teaching⁶.

Medical studies are considered to be moments of crises, having three phases firstly adaptation in the new medical field, secondly a vast study course with extensive exams and lastly medical college is characterized by responsibilities, psychological toxicity and future insecurities.³ All these phases have multiple effects on the personality of medical students which is evident in the recent research. A research has categorized the factors affecting the medical student's personality which include Increasing stress, insecurity and cognitive overload of medical studies⁷.

A study was conducted to investigate mental and physical health of undergraduate medical students at Shifa College of Medicine Pakistan. Physical activity, mental & physical health, bodily pain and social activities were the domains compared amongst students from 1st year to final year. Results showed physical and mental health for 2nd year

MBBS students significantly differed from students of rest of years.

Medical education is the toughest course of education system worldwide and medical students undergo through stressful environment during undergraduate training program. characterized by competition, lacking leisure time and social activities⁸. In the current study, 95% students agreed that a lot of stress is induced by medical education in their lives. Another research conducted to study the prevalence of post-traumatic stress syndrome in 1st, 2nd and 3rd year MBBS students in Azra Naheed Medical College where a total of 223 medical students participated in research. 73.4% of students were suffering from post-traumatic stress syndrome. No significant difference was found in regard to gender, age and year of MBBS. This research showed prevalence of severe mental stress among medical students⁹. In recent research 95 % students believed that life in medical college is stressful which may result into different psychological problems such as post- traumatic stress syndrome. The administration of medical institutes should take steps to help medical students to cope with stress and to reduce health related problems. It seems that these non-academic issues of life interact with academic stress. Interventions have been devised for mental and physical health of medical students for example, relaxation techniques and stress management techniques These should be inculcated into the curriculum¹⁰.

A College study in India also showed that habits and behaviors of medical students are related to sleep pattern which are directly related to academic stress. Medical students are more prone to adopt habits such irregular bedtimes, excessive internet use, smoking and social media exposure which badly affect mental and physical health of students¹¹. In present research, 80% of students raised the negative impact of medical education such as health issues and improper routine life. These factors directly affect the academic performance and personality of medical students in medical college. Medical students significantly appreciated the role of faculty members in personality development during life in medical college in recent research. Faculty members are real mentors for medical students in medical colleges, there are four values of mentorship: Motivation, Inspiration, Commitment and Excellence. Motivation is a key factor in the relationship between faculty members and student. There is extrinsic and intrinsic motivation where teacher is a facilitator and mentor. Counselling and guidance of students by the faculty members play an important role in personality development¹².

Findings of another research suggest that there is strong cultural component of hidden curriculum taught in medical college. Key components of hidden curriculum of medical education are classified as social, cultural, educational and structural factors. Rules and regulations of medical institutes, moral values, educational environment influence the personality of medical students¹³. Recent research also showed the positive impact of medical education on the personality of medical students. Emotional intelligence, maturity and stability of personality and development of doctor – patient relationship is the positive impact of medical teaching in medical schools¹⁴. Our research also showed that students admired the role of medical education in improvement of personality of medical students.

Students' Comments:

"It has changed my life. Taught me how to manage things in time, how to overcome my stress and how to cope with toxic environment around me.... It helped me in building my character in the best possible way."

"Medical education enables you to see the world and life from a different point of view and be understanding and accepting of various views and personalities."

"Medical education has its pros and cons. Pros include that through it I am a part of one of the noblest professions in the world. Being able to help the needy and provide services to mankind and being respected anywhere I go. While cons include that there is a lot of pressure of studies all the time. Not being able to attend many things due to exams or classes. Not having enough free time for myself to engage in other outdoor activities often. But everything has its pros and cons and medical education's pros weigh heavier than its cons. Overall medical education has changed my personality and my outlook on life. It has helped me achieve the balance required in my life."

CONCLUSION

It was concluded that medical education has positive and negative effects on the personality of medical students. It is the students' perception that their mental, physical & social health is badly affected. Medical students feel that empathy, humanity, dignity & emotional intelligence are the positive changes in their personality. Role of faculty members is also appreciated by the students.

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