**REVIEW ARTICLE** 

CODEN: AAJMBG

# Introducing the component of value-based training of medical students

# Saurabh RamBihariLal Shrivastava<sup>1,2\*</sup> and Prateek Saurabh Shrivastava<sup>2</sup>

<sup>1</sup>Deputy Director - Academics, Sri Balaji Vidyapeeth - Deemed to be University, Medical Education Unit Coordinator and Member of the Institute Research Council and <sup>2</sup>Department of Community Medicine, Shri Sathya Sai Medical College & Research Institute, Sri Balaji Vidyapeeth (SBV) -Deemed to be University, Ammapettai Village, Nellikuppam, Chengalpet District, Tamil Nadu, India

#### *Received:* 20<sup>th</sup> February 2022; *Accepted:* 8<sup>th</sup> June 2022; *Published:* 01<sup>st</sup> July 2022

Abstract: The primary aim of medical education delivery in most nations across the world is to increase the number of medical doctors, with variable attention towards the quality of the produced graduates. The purpose of the current review was to understand the lacunae in medical education delivery and the necessity to impart value-based medical education to trainee medical students. An extensive search of all materials related to the topic was carried out on the PubMed search engine and a total of 18 articles were selected based upon their suitability with the current review objectives. Keywords used in the search include values and medical education in the title alone only. In our desire to learn novel tools, somewhere we are falling short in our compassion and empathy, and this is quite evident considering that there is a remarkable rise in the incidents of violence against doctors and burnouts among them. The presence of these values in a medical student or a doctor ensures the development of trust with patients, caregivers, and the other members of the health team. To conclude, the delivery of value-based medical education is very much essential considering the dynamics of healthcare. The period of medical training should be wisely utilized to train medical students on values so that upon completion of their training, these students become a vital cog in the delivery of value-based health care to the patients.

Keywords: Values, Reflections, Students, Medical education.

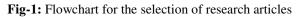
#### Introduction

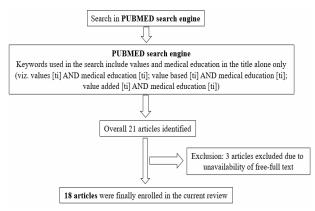
The primary aim of medical education delivery in most nations across the world is to increase the number of medical doctors, with variable attention towards the quality of the produced graduates [1]. However, with the reforms reported in medical education, the regulatory bodies have envisioned ensuring that medical students not only acquire knowledge and skills during their training period but also contribute effectively towards patient care [1-2].

In-fact, the attitudes and values developed during undergraduate or postgraduate medical training plays a crucial role in shaping the behavior of medical students in their professional career and thus should be given due attention [2]. The purpose of the current review was to understand the lacunae in medical education delivery and the necessity to impart value-based medical education to trainee medical students.

#### Methods

An extensive search of all materials related to the topic was carried out on the PubMed search engine. Relevant research articles focusing on value-based medical education published in the period 2011 to 2021 was included in the review. A total of 21 studies similar to current study objectives was identified initially, of which, three were excluded due to the unavailability of the complete version of the articles. Overall, 18 articles were selected based upon their suitability with the current review objectives and analyzed. Keywords used in the search include values and medical education in the title alone only (viz. values [ti] AND medical education [ti]; value based [ti] AND medical education [ti]; value added [ti] AND medical education [ti]). The articles published in only the English language were included in the review (Figure 1).





The collected information is presented under the following sub-headings, namely, what are we missing in medical education? Understanding values in medical education, Values-based medical education, Role of stakeholders, Evidence of delivery of value-based medical education, and Values-based health care.

### What are we missing in medical education?

The basic direction in which we are moving in the field of health care delivery has some inherent flaws. At present, the treating doctors are predominantly dependent on a battery of laboratory tests or radiological examinations to reach the clinical diagnosis, but this has significantly impacted the ability of doctors to use intuitions, and gradually we have started to treat reports or body parts rather than the complete patient [3-4].

Our competence in communication skills has come under scanner in various healthcare settings, and there has been a substantial decline in the extent of trust, and the most alarming part is that it happens despite the presence of documentary evidence in the form of results [2-3]. In our desire to learn novel tools, somewhere we are falling short in our compassion and empathy, and this is quite evident considering that there is a remarkable rise in the incidents of violence against doctors and burnouts among them [1-3]. We all will agree that different curricular reforms have been introduced in the medical training, such as technology-driven training, encouragement towards a culture of specialization, rising number of online courses, adoption of innovative teachinglearning methods, the introduction of virtual reality, robotics, skill labs, cadaver-based training, etc., [3-5].

There is no doubt that all these introductions have significantly aided in the effective delivery of medical education, but there is another side to all these developments [5-6]. The branch of medicine has been conventionally considered a combination of art and science and going with the current set of developments, it is quite obvious that we are making remarkable progress on the science front, but the so-called "art component" has been widely ignored [4].

## Understanding values in medical education

In general, values refer to beliefs that influence the decision making or behaviour of an individual in specific scenarios. We must understand that any person acquires these values based on their upbringing and the atmosphere/circumstances to which they are exposed during their childhood either in home or in school settings [6-7]. In the case of medical students, the expected positive values include honesty, accountability, respecting others, integrity, empathy, compassion, altruism, etc., which are expected from all humans [6-9]. The presence of these values in a medical student or a doctor ensures the development of trust with patients, makes the process of healthcare delivery transparent, and ensures cooperation and respect from the patients, caregivers, and the other members of the health team [1, 7-8].

# Values-based medical education

Traditionally, a strong relationship has been reported between education and the development of values, and it is quite essential that values should be reinforced as a part of the curriculum, so that person can be transformed into a better human being [8-9]. As already stated, values often develop in childhood but as medical educators, our intention should be to preserve the gained values during the training period [6-8]. This is very essential as with the passage of age, the relative importance of different values might undergo transition, and it becomes our duty to preserve the positive values that are very essential for successful clinical practice and for building & sustaining trust in doctor-patient relationships [9-10].

The exposure of students to different ethical dilemmas or a case scenario plays an important part in adding values into the curriculum [11]. One of the feasible ways is to expose the medical students to different modules of the attitude, ethics, and communication module in a longitudinal manner throughout their training period across all professional years. The students learn a lot of moral values, critical thinking, and decision-making skills in the cases that are being discussed and thus learn from their experiences and reflections [11-12]. Another approach to impart value-based medical education is to ensure early integration of learning in workplace settings, and the outcomes can be further amplified by the adoption of an interprofessional/team-based approach [7-11]. The values are also taught to medical students as a part of the hidden curriculum, wherein they learn from their teachers (role modeling), peers, and informal discussions in different settings [13].

# **Role of stakeholders**

Considering that there is a vast amount of knowledge that needs to be passed on to the medical students within a stipulated duration of the training, there is always pressure on medical educators to maintain a balance and ensure that students are trained in all core competencies [9-10]. It is quite obvious that in our vision to train medical students on values, separate time cannot be allocated, rather we have to merge the same with the existing sessions [3-4].

The need of the hour is that all the concerned stakeholders (viz. Administrators, Curriculum Committee Members, Members of the Medical Education Unit, teaching faculty, etc.) should understand the significance of the development of desired values among medical students and thus consciously adopt strategies to strengthen the learning of students in these aspects [1-3]. Accordingly, there is a need to add the component of values training in the curriculum, and the stakeholders can take care of the required logistics and resources [7].

# Evidence of delivery of value-based medical education

Acknowledging the scope and significance of value-based medical education in the current era, different institutions have taken steps to bring about a reform in their existing curriculum [9, 12-13]. At the University of California, students and teachers have joined their hands together to provide a real learning experience in the workplace settings by adding value to the system of patient care. At Harvard Medical School, a value-based healthcare curriculum was integrated with the existing curriculum, and case-based learning was predominantly used to benefit students [7, 14].

In another institution, medical students from the first professional year are posted in community health centers to develop liaison with the community and understand the concerns of people [7, 15]. In another medical school in the United States, medical students are engaged in the system's improvement, as one of the educational reforms. On a similar note, value-based education has also been offered as a part of a fellowship program or other courses in different specialties to benefit undergraduate students and postgraduate residents [15-17].

# Values-based health care

In the current era of rapid advancements reported in the health sector, there is an immense need to adopt value-based health care that not only improves the health outcomes but even play its part in reducing total costs [6, 10]. The inculcation of values in health care is essential to ensure that the basic principles of ethics are strongly adhered by the healthcare professional and patient safety is ensured [10-11].

In-fact, these values clearly determine how we arrive at clinical decisions, communicate with patients & their caregivers, and reflect upon our performance as well [16]. For instance, the presence of values will help a surgeon to make the right call to operate for a condition after giving due consideration to the disease and the financial status of the patient, and just not go for the procedure indiscriminately. Further, these values play a crucial role in the attainment of different core competencies (viz. medical knowledge patient care, professionalism, communication skills, lifelong learner, and systems-based practice) [16, 18].

#### Financial Support and sponsorship: Nil

Shrivastava SR & Shrivastava PS

#### Conclusion

To conclude, the delivery of value-based medical education is very much essential considering the dynamics of healthcare. The period of medical training should be wisely utilized to train medical students on values so that upon completion of their training, these students become a vital cog in the delivery of value-based health care to the patients.

Conflicts of interest: There are no conflicts of interest.

#### References

- 1. Naqvi HA, Hussain A. Medical education: value based teaching. *J Pak Med Assoc*. 2011; 61:1027-1028.
- 2. Adkoli BV. Teaching professional values in medical education. *Natl Med J India*. 2015; 28:194-197.
- 3. Finnerty EP, Chauvin S, Bonaminio G, Andrews M, Carroll RG, Pangaro LN. Flexner revisited: the role and value of the basic sciences in medical education. *Acad Med.* 2010; 85:349-355.
- 4. Supe A, Shah H. Value based medical education. *Med J Armed Forces India*. 2021; 77:S8-11.
- 5. Dagnone JD, Bandiera G, Harris K. Re-examining the value proposition for competency-based medical education. *Can Med Educ J.* 2021; 12:155-158.
- 6. Lucey CR, Golub RM. Value, social contracts, and medical education. *JAMA*. 2014; 312:2345-2347.
- Holtzman JN, Deshpande BR, Stuart JC, Feeley TW, Witkowski M, Hundert EM, et al. Value-based health care in undergraduate medical education. *Acad Med.* 2020; 95:740-743.
- 8. Gruppen LD. Humility and respect: core values in medical education. *Med Educ.* 2014; 48:53-58.
- 9. Mattick K, Baumfield V. From cost to value in medical education. *Med Teach.* 2016; 38:533.
- Sklar DP. How medical education can add value to the health care delivery system. *Acad Med.* 2016; 91:445-447.
- 11. Moriates C, Gandhi S, Vinas E. How to implement high-value health care training in graduate medical education. *J Grad Med Educ.* 2019; 11:674-677.
- 12. Gonzalo JD, Dekhtyar M, Hawkins RE, Wolpaw DR. How can medical students add value? Identifying roles, barriers, and strategies to advance the value of undergraduate medical education to patient care and the health system. *Acad Med.* 2017; 92:1294-1301.
- 13. Oliver SW, McAuley L, Collins K, Haddock R, Gallacher L. Near-peer teaching adds value to

undergraduate medical education. *Med Teach.* 2016; 38(3):317.

- Altamirano-Bustamante MM, Altamirano-Bustamante NF, Lifshitz A, Mora-Magaña I, de Hoyos A, Avila-Osorio MT, et al. Promoting networks between evidence-based medicine and values-based medicine in continuing medical education. *BMC Med.* 2013; 11:39.
- Macneill P, Joseph R, Lysaght T, Samarasekera DD, Hooi SC. A professionalism program in medical education and training - From broad values to specific applications: YLL School of Medicine, Singapore. *Med Teach.* 2020; 42:561-571.
- Young AE. Value-based medical education in Obstetrics and Gynecology: A paradigm shift. *Obstet Gynecol.* 2017; 130:684-685.
- Guo K, Luo T, Zhou LH, Xu D, Zhong G, Wang H, et al. Cultivation of humanistic values in medical education through anatomy pedagogy and gratitude ceremony for body donors. *BMC Med Educ.* 2020; 20:440.
- Lin SY, Schillinger E, Irby DM. Value-added medical education: engaging future doctors to transform health care delivery today. *J Gen Intern Med.* 2015; 30:150-151.

**Cite this article as:** Shrivastava SR and Shrivastava PS. Introducing the component of value-based training of medical students. *Al Ameen J Med Sci* 2022; 15(3): 189-192.

This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial (CC BY-NC 4.0) License, which allows others to remix, adapt and build upon this work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

\*All correspondences to: Dr. Saurabh RamBihariLal Shrivastava, MD, FAIMER, PGDHHM, DHRM, FCS, ACME, M.Phil. (HPE). Professor, Department of Community Medicine, Shri Sathya Sai Medical College & Research Institute, Sri Balaji Vidyapeeth (SBV) - Deemed to be University, Ammapettai Village, Thiruporur - Guduvancherry Main Road, Sembakkam Post, Chengalpet District-603108, Tamil Nadu, India. E-mail: drshrishri2008@gmail.com