

Organ and Tissue Donation in Undergraduate Medical Education: A Critical, yet Understated Competency

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Organ donation refers to the retrieval of an organ such as kidney, liver etc. or a part of it from a donor to be transplanted into a recipient who is a patient suffering from irreversible organ damage. Tissue donation includes certain tissues such as cornea, bone, tendons, heart valves and blood. Although the number of organ transplantations in India have increased from 4,990 to 15,561, during the period 2013 to 2022, these remain miniscule considering that more than one lakh organ failures are reported every year in India.¹⁻³ In India, the living donations constituted around three-fourths of the overall organ donations, remaining being from the deceased.³ These abysmal figures indicate that the awareness, attitude and practices about this life saving intervention among the healthcare providers and the community need to be increased.⁴

Training future healthcare providers and medical educators will be a step forward in this direction. Even a short education session for medical undergraduate students has been found to increase the knowledge and enhance the attitudes about organ donation.⁵ Medical students have also suggested that a structured formal curriculum on organ and tissue donation (OTD) may transform students into active learners and maximise the educational productivity.⁶ We highlight some strategies to improve the teaching learning experience of OTD among medical students.

The Competency-based curriculum (CBC) for Indian Medical Graduates (IMG) enlists certain competencies related to organ transplantation such as the *Organ Transplantation and the Human Organ Transplant (Amendment) Act 2014* and ethical issues regarding organ donation under the Forensic Medicine subject, principles of immunosuppressive therapy and management of organ transplantation under the subject of Surgery, immunization in children with organ transplants in Pediatrics, and medico-legal and ethical conflicts in organ transplantation in the Attitude, Ethics, and

Communication (AETCOM) module.⁷⁻¹⁰ We suggest that exploration of socio-cultural factors in OTD, and OTD counseling skills would make their training more comprehensive. Training on grief counseling skills can be taken up by Psychiatry department.

Peer to peer learning about OTD is one of the strategies being used in our institute through Organum Donum, University College of Medical Sciences (UCMS), a student-led initiative to spread awareness and dispel myths about organ donation among medical students.¹¹ Some studies have also highlighted the peer learning approach for organ donation teaching.^{12,13} This model leverages the student to student connect and trust in advancing the cause. Students regularly organize seminars, quizzes, and collaborate with other organizations working for the cause of OTD to gain community perspectives. They also collaborate with faculty in several departments such as Anatomy, Ophthalmology, Pathology, Medicine, Orthopedics and Psychiatry to name a few to conduct specific academic events such as cadaveric oath, blood donation camps, cornea and other organ and tissue donation awareness programs. Recently, this group launched a 'Campus Ambassador' initiative to spread awareness in other medical colleges too. This would help the students to network for advocacy on a relatively larger scale, share best practices, and support and motivate each other to work for OTD.¹¹ National Organ and Tissue Transplant Organization (NOTTO) supports the OTD activities carried out by Organum Donum, UCMS. There is a scope to further channelize the role of such student-led groups in spreading correct knowledge and a positive attitude about OTD among medical students.

Early clinical exposure, AETCOM sessions, and electives are other points of contact under the CBC for IMG which can be utilized for OTD in the different phases of the medical undergraduate course. Some notable OTD related

activities currently being carried out in the early clinical exposure sessions are cadaveric oath, visit to blood bank, and student seminars. AETCOM sessions across various phases are designed to impart empathy and communication skill training. OTD counseling requires a deeper understanding and higher levels of skills to empathetically communicate with potential donors or their family members. Empathetic communication training has been shown to increase individual's knowledge, attitude and practice of organ donation.¹⁴ Tools from the medical humanities such as narratives from organ donors, recipients, health care providers involved in OTD, poetry, visual arts, sharing of lived experiences can be effective in developing empathy and improving communication skills.

Elective posting in both pre/para-clinical and clinical subjects is mandatory for medical undergraduates under the CBC. Certain elective topics such as cornea donation, blood donation, bone bank, kidney transplantation, liver transplantation and others can be provided by the respective departments providing these services. Medical colleges can collaborate with other medical institutions also which are delivering OTD services to offer these topics in their elective postings. Institute level multi-disciplinary (viz. anatomy, physiology, community medicine, ophthalmology, psychiatry, medicine, surgery, orthopaedics, dermatology etc.) electives can be offered. Research on related topics can be conducted by the students interested in OTD during elective postings. This research should preferably be done using qualitative or mixed method study designs to help the students identify the critical role of the contextual factors in OTD.

Diverse, engaging, and real-life exposures may improve teaching learning experiences for the topic of OTD. OTD is a complex process and the decision to donate or to receive an organ or tissue is influenced by various social, cultural, religious factors and correct knowledge among the potential donors or the family members of the deceased/dying patients. Students can be involved as an observer during the chain of events from donor family counselling to transplant and follow-up for further fostering the interest and skills. Engaging students in this medico-social cause can enrich our medical students in developing leadership, communication, and professionalism related skills along with becoming a better clinician and a lifelong learner.

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