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Bioethical challenges encountered in healthcare settings in India - An overview

Abstract

In a complex, diverse and populous country like India, bioethical challenges are encountered in almost every aspect of healthcare; from determinants of health to healthcare access, training and clinical research. Insufficient planning and response to national healthcare needs have led to a distorted reality where best in class professionals provide cutting edge medical care at high end private hospitals; but a large percentage of the population do not have access to even basic healthcare. Rising healthcare costs, commercialization, and inadequate public health services have deprived large segments of timely care of reasonable quality. Clinical trials in a setting of diminished healthcare security leads to the possibility of exploitation and unfair incentives to participate. A rights-based approach to healthcare is needed, with sensitization of health cadres to the need for respectful, compassionate care, and advocacy on behalf of marginalized vulnerable groups. A possible solution is comprehensive inclusive public health planning, with adequate budget to support resources and personnel; to fund timely access to medical care when required. As healthcare needs impacts every citizen of every age, addressing these bioethical concerns should be prioritized at every level.
Keywords: Healthcare, bioethics, equitable access, clinical research, public health

Introduction

Given the scale and complexity of India's healthcare landscape and the fragmented data available, it is a formidable task

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to fully capture the complete scope and nature of bioethical challenges encountered across urban, rural, remote, private-owned, and Government-run health settings; the picture is incomplete at best, non-uniform and contextual, mostly derived from narratives, reports and journal articles not directly focused on bioethical dilemmas. Towards a better understanding, clinicians practicing in diverse settings were invited to a session 'Contemporary Bioethical Practices' conducted at the International Academic Conference "Insights into Bioethics in an Indian Context" held in May 2025 at Navi Mumbai, India. Experiences were shared at a more granular level; both at regional and institution settings. Bioethical issues were described as they were practically encountered, highlighting gaps in perception and practice, and suggestions to enhance ethical practice in hospitals.

In general, Bioethical concerns in healthcare tend to be articulated in relation to areas like human research, IVF-ET, blood transfusion, vaccines, organ transplantation and prenatal testing. These extremely complex, biotechnology-driven areas of healthcare are often governed by laws in this country; NACO guidelines for HIV testing, Pre-conception and Pre-Natal Diagnostic Testing Act, Transplantation of Human Organs Act, Assistive Reproduction Technology Act, and others. Even so, there are ethical concerns related to each of these areas that may not be addressed merely by legal guidance. When it comes to ensuring ethical standards in healthcare and clinical practice, whether in institutions or public health settings, it is individual practitioners and specific policies that will determine the extent to which patients are ethically treated, protected, and respected (Dehkordi et al., 2024). Health professionals and health administrators, health institutions and public health officials, need to introspect, evaluate and explore how best to ensure ethical practices every level, conscious of the vulnerability and trust of patients, providing patients a forum for their needs and expectations in healthcare settings.

The reason is that bioethical challenges are not just encountered in the areas of new medical technologies, research and testing. Even in day-to-day healthcare patient encounters, it is necessary to ensure the basic principles of medical ethics are upheld, in the best interest of the patient and good clinical practice. How can basic ethical codes and values be translated into policies, best practice guidelines and better patient experience? How do we ensure, for example, that patients are treated with respect? That they do not encounter discrimination, alienation, stigma, difficulties and delays that we ourselves would not tolerate? Is their consent truly informed and 'understood' consent, and do we genuinely respect their personal choice regarding medical treatment and options? Are they truly free to consent or refuse, or are patients coerced or paternalistically nudged into decisions; ostensibly for their own good? These are some responsibilities that fall squarely on the shoulders of health professionals; as health leaders in this country we determine, based on our policies and practice, just how bioethical concerns are addressed, and how bioethical principles become practice, in healthcare settings (Subramanian et al., 2016). There is need to be conscious of conflict-of-interest situations that many health professionals, experience in the workplace. When medical professionals work in non-clinical institutions like insurance companies, health planning, research institutes, or pharmaceutical companies, the need to protect patient's interests and uphold the codes of conduct is critical. We will explore in this article, some areas in practice where bioethical challenges are often encountered in the working environment, through the lens of the medical or health professional, and how they impact patient care and experience.

Autonomy and consent

Respect for patients autonomy is a central tenet in doctor patient relationship, that allows patients to choose based on their individual, family and cultural preferences, and express their concerns. This is not only a challenge because it requires good communication skills on the part of the doctor, as well as time and patience to dialogue, there are significant barriers to autonomy in low and middle income countries (LMIC) like India that can impede this process (Jacob, 2014). For a large part of the population there is a severe power imbalance at the health provider interphase, during to illiteracy, cultural and language barriers, financial strain, and limited options. Such patients are not empowered to claim their rights, express preferences, or refuse care based on their dependent social position; and instead concede to paternalist decisions and care (Sareen & Dutt, 2019). Doctors need to be sensitive to such situations in which patients have limited agency, and can easily be exploited. In such situations there can also be misunderstanding and resentment; with little recourse to remedy or justice. It is a challenge to ensure that patients and their decisions are respected in multicultural, plural communities, overcoming ingrained prejudices and systemic inequalities, with the best interest of the patient in mind (Nandimath, 2009).

As opposed to the idea of individual autonomy described and promoted in the West, decision making in India often tends to involve families, and sometimes even communities. In this kind of relational autonomy family members may decide/consent for the patient based on relationships (spouse) or family finances, and collective interest of both the family and the patient (Espinoza & Cabieses, 2013). This may present a challenge for the health professional, particularly when there is a requirement for confidentiality; in adolescents, women, reproductive issues, sexually transmitted diseases and those like HIV, tuberculosis and leprosy that carry severe stigma and social ostracism (Mathiharan, 2014). How do we recognize and respect vulnerable patients, anticipate their needs, and protect them from unfair practices or exclusion? The health professional may have to carefully navigate the sensitive legal, ethical and cultural minefield, negotiating with the family in order to protect the patient; even advocating for care needed by the patient, when the family refuses it. At other times ensuring the patient's confidentiality is protected, even while respecting the choice of the family. In a rushed and crowded out-patient, sensitive information could unwittingly be shared with relatives who are not the next-of-kin, placing the patient in peril. These are complex socio-cultural nuances to our ethical practice and understanding of autonomy; health professional should be conscious of spaces where respect and consent could be at risk (Mukherjee, 2025).

Another socio-cultural barrier to autonomy that emerges in LMIC countries is the ability of the patient to advocate for themselves and give truly free and informed consent for procedures and surgeries. Due to the different levels in literacy and education, the implications of the procedure and consent may not be obvious to the patient, and consent may be given based on trust. For medical interventions, a basic level of health literacy is required, to understand the limitations and potential of the procedure or test, as well as risks; to evaluate and decide based on reasonable understanding before giving consent (Khan, 2014). This is a great concern to health professionals who may not always have enough time, or language, to access patient's comprehension of benefits and risks, and if the consent is based on what the patient truly believes is best for him/her in the circumstances. In practical terms, it may be impossible to bridge this gap in understanding of medical science and its limitations, and doctors clinical capacity, to ensure the patient fully understands and gives consent based on that understanding. This is routine bioethical challenge faced practically by health professionals in daily encounters with patients (Banait et al., 2022). This could even extend to clinical research where there could be therapeutic misconception; leading to the need for greater protection of participants until there is a higher level of health literacy and research literacy. Health professionals are forced into a paternalistic role that may not always be comfortable (Gopichandran et al., 2025).

The need for attention to patient autonomy extends beyond consent for treatment and surgery, to end of life decisions, Do-Not-Resuscitate orders and In-vitro fertilization or medical termination of pregnancy where there are medico-legal implications (Timms et al., 2020). Even when consent may be sensitively handled, there is still the need to ensure that patients are truly free, to either refuse or accept. In India, without the safety net of universal healthcare and social security, and limited below-par free care options for patients without health insurance, refusal of care could have serious implications. Other medical spaces where consent and autonomy is often severely at risk are in mental health care, obstetrics and childbirth, pediatric and adolescent care, and elderly patients (Avci, 2023). The concerns expressed earlier are amplified in such situations, where surrogate consent is given by parents and others; doctors have to ensure that the best interest of the patient in those circumstances is balanced against the choice or will of the family member who gives consent.

New interventions like telemedicine, introduced as a measure to include unreached populations present new challenges to consent. Only those with dependable telecommunication access can benefit, and consent provided in such cases can be compromised, as there may be limited options available to the patient who avails care in these situations (Aneja & Arora, 2021).

Equitable healthcare access

In India, healthcare is non uniform; at one end of the spectrum there are tertiary hospitals offering cutting edge, medical technologies accessible only to those who can afford, and at the other end of the spectrum, we have people with barely any access to even primary health care (Barik & Thorat, 2015). The landscape in between holds a mix of secondary and primary care centers that could be free or for-profit, depending on whether it is Government-owned or privately-owned respectively. There are also donation funded, faith based mission hospitals that provide care at reasonable cost, which could even be free for parents who cannot afford to pay. A year on year inadequate budget outlay for health has resulted in less public hospitals than required by the growing population and poor maintenance of the existing free healthcare institutions, accessed by almost 60 percent of the populations in rural or urban settings (Balarajan et al., 2011)

The prospect of poor infrastructure, inadequate health personnel, non-availability of beds and drugs in Government hospitals in general has led to the perception of 'poor quality' in the public sector, and even those who cannot afford would like to access private care to the extent they can afford (Lokhandwala, 2016). Around 70 percent of the population do not have the means or savings to afford health insurance or healthcare of a reasonable standard. Out of the pocket expenditure for health is one of the main reasons that pushes people into poverty in this country (Ghosh, 2011). This is a important bioethical concern that frustrates helps professionals as they try to ensure that every patient they encounter receives appropriate care either in the public or private sector. With deepening social inequalities, and a widening affordability gap in all sectors, including housing and education, access to health care has become a grave concern. This inequitable access to health may be the result of multiple and complex factors, but health professionals cannot completely ignore this unfortunate reality (Chawla, 2023).

According to the WHO, healthcare should be accessible, acceptable, affordable, equitable and timely. The tragedy is that while India provides the best medical talent across the developed countries, and is a preferred destination for affordable best-in-class dental and medical services in medical tourism, low-income and financially stressed citizens cannot ever expect to access such facilities (Ozair & Singh, 2021). To be aware of existing state of the art healthcare and remedies that are out of reach, is a cruel reality many are forced to live with. NGOs and doctors have advocated for equitable care but most of the responses have been sketchy and short-lived without a durable sustained plan for transformation. The Government has attempted to design health schemes to include stressed populations, but these efforts are patchy, non-uniform and often do not meet expectations; many fall out of the safety net and are unable to access care they need (Kumar, 2011). Health insurance is certainly not the answer to health needs in LMIC as proven through the experience of other countries; only a small fraction of the population can afford such insurance though self-funding, employment, or Government schemes (Duggal, 2016). Public health planning tends to respond to immediate needs, as in Covid-19, endemic infections, or increased Diabetes. It has not been adequate to address the vast, and complex health needs related to geography, diversity, culture, climate and historical deprivation. The reliance has been on top-down planning based on inadequate data and needs estimation, rather than a ground-up evaluation, prioritizing communities needs and preferences (Pramesh et al., 2021). Preventive measures central to building healthier populations, and reducing cost of medical care, are poorly emphasized, leading to high cost unaffordable interventions like kidney replacement, ICU care, surgeries and transplants. Doctors need the help of Government led Public health preventive care efforts to ensure patients stay healthy.

Another failure has been the inability to address the determinants of health; poor quality air, overcrowding in cities, unemployment, lack of access to housing, education, clean air, nutritious food are worsening the illness and disease burden and crippling the existing capacity of hospitals. Without a plan to to radically change living conditions of the poorest, the health system will continue to be inadequate and the medical load unmanageable (Jain, 2018).

There is poor control of drug prices and cost of healthcare; commercial hospitals focused on profitability rather than service have displaced many small secondary hospitals and clinics. This increasing gap and inequality in society emerging from low employment salaries and high cost of health care is creating a situation where only a fraction of the population can afford or have access to the quality of care they need (Chauhan, 2022). Doctors working in both private and public health services feel frustrated when patients are turned away, or have to abandon treatment due to inadequate infrastructure in public hospitals, or inability to afford private healthcare; leading to moral distress and helplessness in health personnel (Kim, 2025). It even possible to ensure that every patient is served regardless of capacity to pay, insurance or such guarantees? This injustice may be systemic, a result of poor governance or limited resources; but doctors encounter the patient in an immediate way, in the midst of severe need and cannot look away. The role of the doctor in such situations, as advocate of health rights and access to healthcare needs to be expanded (Ghia & Rambhad, 2023).

Bioethical concerns in research

India was one of the earliest countries to develop its own human research guidelines in 1980 following the Helsinki declaration; and CIOMS international guidelines (ICMR, 2017). Its more recent iterations, this country's National Ethical Guidelines for Biomedical and Human research involving Human Participants 2017, reflects the regulators interest to keep pace with developments in health and human research, and address challenges related to participant protection. However, it was not until sponsored clinical trials were outsourced to India in the late 20th century (Pai, 2016; Jayaraman, 2004), and media reports of scandals emerged, that emphasis was laid on developing oversight structures in the form of Institutional Ethics Committees (IEC) at the level of research institutions and hospitals, to approve and monitor clinical trials and other human research. Ethical oversight was formalized through these internal structures that review not only the scientific research protocols, but also protection of participants, vulnerability, safety and compensation. In addition, a clinical trials Registry was created, and all IECs were expected to be registered with the central authority, and carry out training for all their members (Bhosale et al., 2016). Capacity building in research ethics was a huge undertaking as medical ethics itself was not a subject in medical colleges at the time (Mishra et al., 2018). As research and publications became linked to promotions and career advancement, more health professionals entered the field of research, needing research training and ethics sensitization. This was a significant bioethical challenge in healthcare, as the country was still struggling with goals of inclusion in healthcare, upgrading of health facilities and health personnel training. While the country may certainly require adequate research in illnesses that affect the population, clearly there is a need to sensitize researchers to ethical requirements and protection of vulnerable groups (Shivayogi, 2013).

Health research in LMIC can be challenging because vulnerable participants may not understand the value of participation, or the risks involved in research (Dakhil et al., 2024). These include, illiterate, uneducated persons who may be unable to give fully informed consent, participants who believe that participation in research may be a means to access the healthcare they need, as well as patients who have a therapeutic misconception that health research may be therapeutic because their doctor is involved. In addition, sensitive research in communities could expose individuals and even the entire community to stigma due to breaches in confidentiality. This could worsen the living conditions and health access of already stressed communities (Ravi et al., 2025).

Protection of participants becomes critical in a country without universal healthcare or social security, where complications or adverse events due to research would need to be compensated and followed up long term. This lack of safety net is a deterrent for participants, if the risks are unacceptable, even where compensations are promised. With large sections of the populations living in financially stressed situations, payments for participation could be tempting or coercive; this is another ethical issue to anticipate (Lahey et al., 2013).

Unfortunately, at present the entire onus of ethical and scientific approval of research, compensation, ensuring protection and understood consent, as well as inspection and follow up, falls on the shoulders of Ethics Committee members who are volunteers, trained to varying degrees, not legally responsible and generally overwhelmed with the task burden. While the researchers may be directly responsible legally, the IEC is also held accountable (Shanmukhappa et al., 2020). With the exception of company sponsored clinical trials there is often inadequate resource at the level of hospitals and research institutions to train committee members and faculty, facilitate inspections and compensate adequately for research harm. This financial strain and capacity shortfall continues to be the major bioethical challenges in health research. With limited resources applied to institutional research in this country, quality research becomes a challenge and many good researchers find more favorable conditions abroad (Dandona et al., 2004).

Clearly, despite guidelines and legal requirements, capacity training and committees, it is the attitude of the researcher that is central to ensuring ethical research; the reasons and intentions in doing research, and commitment to good, high quality honest research. It is the integrity and conviction of the researcher, fully understanding the importance of ethical research, that will finally determine the quality of research and protection of participants. Ethics training and sensitization would be essential to overcoming challenges in this area (Ahuja & Pradeep, 2023).

Clinical ethics committees

The need for Clinical ethics committees or Hospital ethics committees has emerged over the last few decades in response to challenging decisions in complex areas of medical care mostly arising from use of biomedical advancements and technology in healthcare like ventilators, dialysis, ECMO, organ transplantation, aortic balloon pumps, and heart-lung machines that are used to keep the patient alive in trauma or terminal illness. These bioethical challenges are often linked to consent for withdrawal of life support, Do-Not-Resuscitate situations, declaration of brain death and consent for transplantation, withholding care in futile cases and other medical decisions that doctors, patients or their families may find difficult to handle alone (Khan, 2016).

Clinical Ethics Committees could assist doctors and patient’s families to understand and navigate such decision making in a trustful, collaborative manner. These committees include a ICU specialist, nurses, administrator, treating doctor, chaplain, and ethicist/social worker. Consultation with a committee has been shown to assist doctors who often experience moral distress with handling these complex situations on their own. They are useful for the patient and family too, as it give them all the information they need and the time to come to terms with difficult decisions, in a compassionate, supportive and caring setting. It also ensures that the wishes of the patient are respected, and unnecessary suffering and indignity is avoided when possible; particularly in end of life or trauma situations where the patient can be kept alive indefinitely using technology (Timms, 2020). In these consultations, the patient's interests, their wishes, cultural context, and family concerns can be discussed; if the patient or family wishes to refuse blood transfusion, organ transplantation, a risky surgical intervention, biotech support, or ICU care, this provides a space to discuss with doctors and experts in an open and non-judgmental way. Though recommended, not every hospital appears to have these committees in place. It requires time, effort, cooperation of the doctors and administration, patients and family, understanding of limitations of medical care, compassionate handling of distressed family members and training in communication skills. In addition, patients or families should not feel abandoned and efforts need to be made to transition to palliative or hospice care when required (Slowther et al., 2004).

There are faith based institutions that deliver healthcare based on commitment to values derived from religious beliefs where one may find highly motivated health professionals, committed to the idea of providing ethical, compassionate, affordable care to patients; even so, there can still be dilemmas and challenges in a pluralist society where beliefs and moral traditions of patients and doctors do not necessarily align, but these can be addressed in a practical and compassionate way, if the best interest of the patient is prioritized. Now that palliative care is mandated in every hospital, it can provides a solution in the case of patients family who refuse treatment but are ill-equipped to care for the patient at home (Slowther & Hope, 2000).

Advance directives or Living wills are not yet to gain acceptance in this country, even though the Indian courts have recommended a legally acceptable process to withdraw futile medical treatment. Presently these procedures are cumbersome and protracted, but there are efforts to disseminate information and ease the process (*The Hindu*, 2023). It helps the doctor and the family to know and accept the wishes of the patient when communication is no longer possible; a distressing bioethical issue faced in ICU settings, where patients and their families can be burdened with expensive, protracted treatment, and the patient with suffering and discomfort. Regular review of the patient's medical condition and timely communication of risk and prognosis, can avoid stressful decisions for doctors and families, and foster trust and understanding in complex situations (Butola & Gursahani, 2024; Soares, 2016).

Barriers to setting up these Clinical ethics committees include lack of expertise, or understanding of need, fear of legal repercussion, disputes or disagreement, and limitations of time and training. However, this bioethical issue of decision making and respect of patient's choice is encountered more than ever today as medical technologies have become a part of healthcare (Raoofi et al., 2021).

High cost care and new medical technologies:

Improved radiological scans, expanded blood testing and endoscopic procedures have pushed up healthcare costs; an additional burden in countries without universal healthcare and health insurance. Technological developments are improving existing diagnostic facilities and companies profit from sale of their latest offerings to hospitals and doctors, who in turn pass the cost on to patients; justified in terms of better care and more accurate diagnostics (Fazal et al., 2012). The improvement in quality of care may often be marginal, but the costs associated are high enough to make it inaccessible to many; a result of aggressive marketing by medical device and drug companies focused primarily on profits (Nagarajan, 2018). This can lead to conflict of interest situations and corruption, when health institutions eye profits over service, and kickbacks and commissions come important motivations. Doctors are easily convinced that higher accuracy or safety in diagnostics might warrant purchase of the new technology, but there appears to be very little concern that for many in LMIC, these tests and technologies are completely out of reach (Chattopdhyay, 2016). This bioethical concern is painfully obvious in cities where hospitals advertise their latest medical offerings as trophies, implying that the use of these tools would ensure more accurate diagnosis, better care and faster recovery. While these claims may hold some truth, the cost of these treatments makes it available to only a thin segment of wealth patients, further widening the health and healthcare access gap in the country (McIntyre et al., 2006).

Not every patient or healthcare need may require expensive tests or therapies, but there is pressure on doctors, particularly in private and corporate hospitals, to prescribe such medical options in order to recover capital costs, or to increase patient billing. This strategy is counterproductive in the long term, as even patients who can afford, become disillusioned and feel exploited by the medical establishment that appears to use them as a means to an end (Kane et al., 2016). Instead of cost effective options tailored to their need, patients are offered 'best in class' treatments and 'comprehensive' testing that may not even be required. Trust is a vital ingredient of the doctor-patient relationship that gets eroded when patient observe this conflict of interest and commercialization in the name of healthcare.

For those who cannot meet the high costs of care for their ailing parents or young children, it is a bitter pill to swallow as they have to walk away from unaffordable options. It is a public health concern that every person should have access to adequate and timely care when needed, and should not have to go into painful, lifelong debt to pay for healthcare needs. Some expensive medical interventions include IVF treatment for infertility, robotic surgery, ICU care, organ transplant, dialysis, cancer care, and cardiac surgery or angioplasty (Murphy et al., 2019).

Robotic surgery is a classical example of high tech, high cost care that may be beneficial, but not always the only option for patients. Though well established in high income countries, their use in LMIC is limited due to affordability. Yet, surgeons here aspire to train in robotic techniques and would like to practice those skills in tertiary set-ups, quite unlinked to the fact that this treatment is prohibitively expensive, and not uniformly suited to the healthcare realities of the country. The high cost of installation, maintenance and capacity building seems incommensurate with the number of patients who may need or afford this technological option; this puts additional pressure on doctors to recruit patients for robotic surgery merely in order to recover costs (Balakrishnan et al., 2023; Burke et al., 2019).

The lack of regulation of hospitals and cost of treatment, promotion of the country as a medical tourism destination, and unbridled emphasis of medical interventions over prevention and health, reflects poor vision in governance and healthcare priorities. The economic divide in health is worsened by the high costs of care afforded only by the privileged, without parallel capacity building in the public sector for weaker sections in society (Dash & Mohanty, 2019).

Sensitization and ethics training

One of the major bioethical challenges encountered in this country is the lack of sensitization regarding ethical standards and the omission of ethics in the training curriculum of health workers. There has aways been a general understanding in healthcare of the need for service and compassion in caring for patients in need, but training has not always emphasized ethical standards and responsibility. In response to falling ethical standards globally in healthcare, the World Medical Association in 1999 mandated the inclusion of ethics into the medical training curriculum (WMA, 1999). It took a while for implementation as the curriculum was already overcrowded and faculty did not have the requisite training; ethics was perceived as requiring a philosophical approach as against a scientific one. This was despite the fact that medical practice from early times, across the world, has always been guided by a Code of ethics. With advances in science and medicine, the foundational philosophies around healing, duties and responsibilities of the doctor, and protection of patients appeared to have receded from consciousness. (Shetty, 2023; *National Medical Commission. Code of Medical Ethics Regulation*, 2002)

The need for ethics training was felt as healthcare became medicalized and expensive and privatized since the mid 20th century. In India, with exception of a few colleges that had always sensitized their students to ethics, most colleges did not change until 2018, when the National Medial Commission introduced mandatory Ethics training modules, in the form of Attitude, Ethics and Communication (AETCOM) in the training curriculum. It was recommended that ethics teaching be integrated across the years and taught by all faculty, rather than a separate subject (Lal & Sehgal, 2022). This move has played an important role in bringing ethics into medical formation. Research ethics too became crucial as clinical trials and human research increased and health workers were also researchers, with additional ethical responsibilities.

Similar modules began to be introduced into nursing, pharmacy and other allied health sciences. Unless there is a conscious understanding of the goals of medicine and the role and limits of the health worker in the healing relationship, patients are at risk of being viewed as a means to an end. The emphasis on respect for the patient and his/her choices, consent and confidentiality in clinical and research settings, protection from harm and care of vulnerable populations, justice in relation to access to healthcare and non-discrimination and working in the best interest of the patient; these are concepts that need to be understood and internalized to create just, equitable, respectful and caring health system (Shrivastava et al., 2022).

These central ethical values compel health workers to hold the line against commercialization, high cost unaffordable care, exploitation and conflict of interest. Training in ethics needs to be on-going and updated at regular intervals. Ethical guidance should precede the introduction of new medical technologies, testing/scanning, telemedicine, AI applications, and interventions like robotics. In evolving health scenarios and health needs it may often be necessary to recalibrate our actions against ethical guidance and evaluate new health programs, research and technologies. Failure to train health workers in ethics can result in misunderstandings and distress as patients expectations are unmet (Mahapatro et al., 2021). This could result in a loss of trust in health workers and the health system, even leading to violence against hospitals and doctors, as unfortunately experienced in this country and others (Pandey and Sharma, 2019). To build trust, every health initiative should be evaluated from the ethics perspective and citizens should be included to understand patient needs and expectations. Openness to feedback, good communication and ethics training are essential to good healthcare; an essential component of quality care (Kumar et al., 2025).

Conclusion

In conclusion, bioethical challenges are encountered across the spectrum in healthcare, particularly in LMIC like India. There are legacy issues that may still not be fully addressed since decolonization, like unequal access to common goods and disenfranchisement of systemically marginalized populations. At the same time, needs of a developing country in tandem with medical advancements and scientific developments, leads to aspirations and demands for quality in healthcare and inclusion, despite resource constraints of a growing and complex governance and capacity. Ethical medical care begins with careful selection of motivated medical aspirants who clearly understand the role and demands of the profession; good formation in ethics and alignment with country realities and needs is more likely to develop professionals that society needs. The complexity of modern medical treatments, health interventions and technologies, high cost of care, commercial interests and pressure to succeed, present ethical dilemmas in a country with large populations of poor and marginalized, socio-economic inequalities, lack of universal health care security and inadequate levels of health literacy and education. The Government has to increase its budget outlay on health and health services so that access to healthcare that is acceptable, quality and affordable becomes a reality for every citizen. Keeping the patient's interest at the center of healthcare decisions, with respectful decision making and protection from harm, can restore trust in healthcare services. Given the large numbers of unreached and vulnerable patients in India, it is more urgent than ever to promote healthcare that is inclusive, ethical, just and compassionate.

References

Aneja, J., & Arora, S. (2021). Telemedicine and ethics: Opportunities in India. *Indian Journal of Medical Ethics, 6*(4, NS). https://ijme.in/articles/telemedicine-and-ethics-opportunities-in-india/.

Avci, E. (2023). Protecting incapacitated patients' rights and best interests. *Indian Journal of Palliative Care, 29*(3), 343–347.

Balakrishnan, G., & Krishnamurthy, A. (2023). Robotic surgeries for cancer in low- and middle-income countries: Hope or hype in surgical oncology? *International Journal of Advanced Medical and Health Research, 10*(2), 64–70. https://doi.org/10.4103/ijamr.ijamr_245_23.

Balarajan, Y., Selvaraj, S., & Subramanian, S. V. (2011). Health care and equity in India. *The Lancet, 377*(9764), 505–515. https://doi.org/10.1016/S0140-6736(10)61894-6.

Banait, S., Jain, J., Bokariya, P., & Khan, S. (2022). Effectiveness of healthcare ethics training in the undergraduate medical curriculum: A quasi-experimental study from rural India. *Indian Journal of Medical Ethics, 7*(4, NS), 297.

Barik, D., & Thorat, A. (2015). Issues of unequal access to public health in India. *Frontiers in Public Health, 3,* 245. https://doi.org/10.3389/fpubh.2015.00245.

Bhosale, N., Nigar, S., Das, S., Divate, U., & Divate, P. (2016). Protection of human research participants: Accreditation of programmes in the Indian context. *Indian Journal of Medical Ethics, 11*(1), 55. https://ijme.in/articles/protection-of-human-research-participants-accreditation-of-programmes-in-the-indian-context/.

Burke, J., Gnanaraj, J., Dhanda, J., Martins, B., Vinck, E. E., Saklani, A., & Harji, D. (2024). Robotic surgery in low- and middle-income countries. *The Bulletin of the Royal College of Surgeons of England, 106*(3). https://doi.org/10.1308/rcsbull.2024.54.

Butola, S., & Gursahani, R. (2024). Advance care planning and the ethical obligation of death literacy as a public health initiative in India. *Indian Journal of Medical Ethics, 9*(4, NS), 308. https://ijme.in/articles/advance-care-planning-and-the-ethical-obligation-of-death-literacy-as-a-public-health-initiative-in-india/.

Chattopadhyay, S. (2016). Corruption in healthcare and medicine: Why should physicians and bioethicists care and what should they do? *Indian Journal of Medical Ethics, 10*(3), 153. https://ijme.in/articles/corruption-in-health-care-and-medicine-why-should-physicians-and-bioethicists-care-and-what-should-they-do/.

Chauhan, A. S., Guinness, L., Bahuguna, P., Singh, M. P., Aggarwal, V., Rajsekhar, K., Tripathi, S., & Prinja, S. (2022). Cost of hospital services in India: A multi-site study to inform provider payment rates and health technology assessment. *BMC Health Services Research, 22*(1), 1343. https://doi.org/10.1186/s12913-022-08707-7.

Chawla, N. S. (2023). Unveiling the ABCs: Identifying India's healthcare service gaps. *Cureus, 15*(7), e42398. https://doi.org/10.7759/cureus.42398.

Dakhil, Z. A., Cader, F. A., & Banerjee, A. (2024). Challenges in clinical research in low- and middle-income countries: Early career cardiologists' perspective. *Global Heart, 19*(1), 13. https://doi.org/10.5334/gh.1293.

Dash, A., & Mohanty, S. K. (2019). Do poor people in the poorer states pay more for healthcare in India? *BMC Public Health, 19,* 1020. https://doi.org/10.1186/s12889-019-7342-8.

Dehkordi, F. G., Torabizadeh, C., Rakhshan, M., & Vizeshfar, F. (2024). Barriers to ethical treatment of patients in clinical environments: A systematic narrative review. *Health Science Reports, 7*(5), e2008. https://doi.org/10.1002/hsr2.2008.

Duggal, R. (2016). Private health insurance and access to healthcare. *Indian Journal of Medical Ethics, 8*(1), 28. https://ijme.in/articles/private-health-insurance-and-access-to-healthcare/.

Espinoza, M., & Cabieses, B. (2013). Examining the link between equity-centered health policies, autonomy and decision-making process in low and middle income countries. *British Journal of Medicine and Medical Research, 3*(4), 1517–1529.

Fazal, F., Saleem, T., Ur Rehman, M. E., Haider, T., Khalid, A. R., Tanveer, U., Mustafa, H., Tanveer, J., & Noor, A. (2022). The rising cost of healthcare and its contribution to the worsening disease burden in developing countries. *Annals of Medicine and Surgery, 82,* 104683. https://doi.org/10.1016/j.amsu.2022.104683.

Ghia, C., & Rambhad, G. (2023). Implementation of equity and access in Indian healthcare: Current scenario and way forward. *Journal of Market Access and Health Policy, 11*(1), 2194507. https://doi.org/10.1080/20016689.2023.2194507.

Ghosh, S. (2011). Catastrophic payments and impoverishment due to out-of-pocket health spending. *Economic and Political Weekly, 19*(25), 63–70.

Gopichandran, V., Subramaniam, S., Chidambaram, P., & Palanisamy, B. (2025). Challenges in obtaining informed consent for health research from dependent older persons in the Indian socio-cultural context. *Indian Journal of Medical Ethics, 10*(33). https://ijme.in/articles/challenges-in-obtaining-informed-consent-for-health-research-from-dependent-older-persons-in-the-indian-socio-cultural-context/.

Indian Council of Medical Research (ICMR). (2017). *National ethical guidelines for biomedical and health research on human participants.* https://ethics.ncdirindia.org/asset/pdf/ICMR_National_Ethical_Guidelines.pdf.

Jacob, K. S. (2014). Informed consent and India. *The National Medical Journal of India, 27*(1), 35–38.

Jain, Y. (2018). The social determinants of health in India. *The National Medical Journal of India, 31,* 376.

Jayaraman, K. (2004). Outsourcing clinical trials to India: Rash and risky, critics warn. *Nature Medicine, 10,* 440. https://doi.org/10.1038/nm0504-440a.

Kane, S., Calnan, M., & Radkar, A. (2016). Trust and trust relations from the providers' perspective: The case of the healthcare system in India. *Indian Journal of Medical Ethics, 12*(3), 157. https://ijme.in/articles/trust-and-trust-relations-from-the-providers-perspective-the-case-of-the-healthcare-system-in-india/.

Khan, R. (2016). Hospital ethics committees: Time to move beyond the obvious. *Indian Journal of Medical Ethics, 7*(4), 251. https://ijme.in/articles/hospital-ethics-committees-time-to-move-beyond-the-obvious/.

Khan, S. (2014). Manufacturing consent? Media messages in the mobilization against HIV/AIDS in India and lessons for health communication. *Health Communication, 29*(3), 288–298.

Kim, D. T. (2025, February 6). What the "moral distress" of doctors tells us about eroding trust in health care. *The Hindu.* https://www.thehindu.com/sci-tech/science/what-the-moral-distress-of-doctors-tells-us-about-eroding-trust-in-health-care/article69183168.ece.

Kumar, A. K. S., Chen, L. C., Choudhury, M., Ganju, S., Mahajan, V., Sinha, A., & Sen, A. (2011). Financing health care for all: Challenges and opportunities. *The Lancet, 377*(9766), 668–679. https://doi.org/10.1016/S0140-6736(10)61884-3.

Kumar, A., Palle, E., & Kodali, P. B., et al. (2025). What influences people's trust in the public healthcare system in Bihar, India? A mixed methods study. *BMC Health Services Research, 25,* 309. https://doi.org/10.1186/s12913-025-12395-4.

Lal, S., & Sehgal, P. (2022). Integration of attitude, ethics, and communication competencies into competency-based UG curriculum. *Indian Journal of Community Medicine, 47*(1), 4–7. https://doi.org/10.4103/ijcm.ijcm_1022_21.

Lokhandwala, Y. (2016). Decline in public health infrastructure in India. *Indian Journal of Medical Ethics, 8*(3), 73. https://ijme.in/articles/decline-in-public-health-infrastructure-in-india/.

Mahapatro, S. R., James, K. S., & Mishra, U. S. (2021). Intersection of class, caste, gender and unmet healthcare needs in India: Implications for health policy. *Health Policy OPEN, 2,* 100040. https://doi.org/10.1016/j.hpopen.2021.100040.

Mathiharan, K. (2014). Law on consent and confidentiality in India: A need for clarity. *The National Medical Journal of India, 27*(1), 39–42.

McIntyre, D., Thiede, M., Dahlgren, G., & Whitehead, M. (2006). What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts? *Social Science and Medicine, 62*(4), 858–865. https://doi.org/10.1016/j.socscimed.2005.07.001.

Mishra, N., Bhatia, T., Nimgaonkar, V., Deshpande, S., & Parker, L. (2018). A qualitative study of institutional ethics committees: Members' understanding of research guidelines, privacy, and challenges to privacy protection. *Indian Journal of Medical Ethics, 3*(4, NS), 315. https://ijme.in/articles/a-qualitative-study-of-institutional-ethics-committees-members-understanding-of-research-guidelines-privacy-and-challenges-to-privacy-protection/.

Mukherjee, S. (2025). Bioethics and legal challenges in medical decision-making: An analytical study in the Indian perspective. *Research Review International Journal of Multidisciplinary, 10*(4), 153–158. https://doi.org/10.31305/rrijm.2025.v10.n4.016.

Murphy, A., McGowan, C., McKee, M., Suhrcke, M., & Hanson, K. (2019). Coping with healthcare costs for chronic illness in low-income and middle-income countries: A systematic literature review. *BMJ Global Health, 4,* e001475. https://doi.org/10.1136/bmjgh-2019-001475.

Nagarajan, R. (2018, February 21). Private hospitals making profits of up to 1737% on drugs, consumables and diagnostics: Study. *The Times of India.* https://timesofindia.indiatimes.com/india/private-hospitals-making-over-1700-profit-on-drugs-consumables-and-diagnostics-study/articleshow/62997879.cms.

Nandimath, O. V. (2009). Consent and medical treatment: The legal paradigm in India. *Indian Journal of Urology, 25*(3), 343–347.

National Medical Commission (NMC). (2002). *Code of medical ethics regulations 2002.* https://www.nmc.org.in/rules-regulations/code-of-medical-ethics-regulations-2002/.

Ozair, A., & Singh, K. K. (2021). Delivering high-quality, equitable care in India: An ethically resilient framework for healthcare innovation after COVID-19. *Frontiers in Public Health, 9,* 640598. https://doi.org/10.3389/fpubh.2021.640598.

Pai, S. (2016). Outsourcing clinical trials. *Indian Journal of Medical Ethics, 4*(2), 90. https://ijme.in/articles/outsourcing-clinical-trials/.

Pandey, S. K., & Sharma, V. (2019). Aggression and violence against doctors: How to address this frightening new epidemic? *Indian Journal of Ophthalmology, 67*(11), 1903–1905. https://doi.org/10.4103/ijo.IJO_1322_19.

Prabakar, A. (2022). The history of medical ethics in India: Looking at the past as we try to change the future. *Voices in Bioethics, 8.* https://doi.org/10.52214/vib.v8i.10117.

Pramesh, C. S., Seshadri, D. V. R., Fernandez, E., Rao, G. N., Dutta, M., Mohan, P., & Equitable Healthcare Access Consortium. (2021). Healthcare in post-COVID India: A call for a decentralized healthcare system. *Journal of Family Medicine and Primary Care, 10*(12), 4337–4340. https://doi.org/10.4103/

jfmpc.jfmpc_2032_21.

Raoofi, S., Arefi, S., Khodayari Zarnaq, R., Azimi Nayebi, B., & Mousavi, M. S. S. (2021). Challenges of hospital ethics committees: A phenomenological study. *Journal of Medical Ethics and History of Medicine, 14,* 26. https://doi.org/10.18502/jmehm.v14i26.8282.

Sareen, R., & Dutt, A. (2019). Informed consent in medical decision making in India. *Journal of Counselling and Family Therapy, 1*(1), 30–37.

Shetty, N. (2023). Medical ethics and law. *Indian Journal of Orthopaedics, 57*(11), 1744–1747. https://doi.org/10.1007/s43465-023-00972-w.

Shivayogi, P. (2013). Vulnerable populations and methods for their safeguard. *Perspectives in Clinical Research, 4*(1), 53–57. https://doi.org/10.4103/2229-3485.106389.

Shrivastava, S. R., & Shrivastava, P. S. (2022). Ensuring training of medical students in bioethics competencies as an integral part of the medical curriculum. *Current Medical Issues, 20*(3), 201–204. https://doi.org/10.4103/cmi.cmi_52_22.

Slowther, A. M., & Hope, T. (2000). Clinical ethics committees. *BMJ, 321*(7262), 649–650. https://doi.org/10.1136/bmj.321.7262.649.

Slowther, A., Johnston, C., Goodall, J., & Hope, T. (2004). Development of clinical ethics committees. *BMJ, 328*(7445), 950–952. https://doi.org/10.1136/bmj.328.7445.950.

Soares, L. (2016). Advance directives, palliative care and clinical bioethics committees. *Indian Journal of Medical Ethics, 12*(1), 58. https://ijme.in/articles/advance-directives-palliative-care-and-clinical-bioethics-committees/.

Subramanian, T., Mathai, A., & Kumar, N. (2016). Knowledge and practice of clinical ethics among healthcare providers in a government hospital, Chennai. *Indian Journal of Medical Ethics, 10*(2), 96. https://ijme.in/articles/knowledge-and-practice-of-clinical-ethics-among-healthcare-providers-in-a-government-hospital-chennai/.

The Economic Times. (2016, January 16). Over 92% people don't trust the healthcare system in India: Study. *The Economic Times.* https://health.economictimes.indiatimes.com/news/industry/over-92-people-dont-trust-healthcare-system-in-india-study/62517023.

The Hindu. (2023, February 2). Editorial: End-of-life decisions: On SC's legal status to advance medical directives. *The Hindu.* https://www.thehindu.com/opinion/editorial/end-of-life-decisions/article66477957.ece.

Timms, O. (2020). DNAR guidelines: Supporting end-of-life decisions. *Indian Journal of Medical Ethics, 5*(3, NS), 180–181. https://ijme.in/articles/dnar-guidelines-supporting-end-of-life-decisions/.

Timms, O., Pandya, S., Jesani, A., & Srinivasan, S. (2020). Centring patient autonomy in DNAR decisions. *Indian Journal of Medical Ethics, 5*(4, NS), 340–341. https://ijme.in/articles/centring-patient-autonomy-in-dnar-decisions/.

World Health Organization (WHO). (n.d.). *Universal health coverage.* https://www.who.int/health-topics/universal-health-coverage#tab=tab_1.

World Medical Association (WMA). (1999). *Resolution on the inclusion of medi-*

cal ethics and human rights in the curriculum of medical schools worldwide. https://www.wma.net/policies-post/wma-resolution-on-the-inclusion-of-medical-ethics-and-human-rights-in-the-curriculum-of-medical-schools-world-wide/.