Integrating Gender in Medical Education A Step in Addressing Health Inequities

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Medicine, as a field, has been critiqued for being gender biased and not accounting for social determinants that shape health conditions, access to healthcare, and health outcomes. Gender bias permeates many aspects of medicine in India: clinical practice, research, health program delivery, and medical education. In 2007 the World health organization (WHO) acknowledged the imperative of systematic integration of gender in the curricula of undergraduate medical students.

This paper is a case study describing the process of implementing the 'Gender in Medical Education (GME)' project in Maharashtra by the Centre for Enquiry into Health and Allied Themes (CEHAT), the Department of Medical Education and Research, Maharashtra (DMER) and the Maharashtra University of Health Sciences (MUHS). The paper aims to illustrate the complex steps involved in integrating gender concerns into an undergraduate medical curriculum.

The GME project consisted of five components, some implemented sequentially and others taking place simultaneously. Three of the components are relevant to this paper. The first component involved ascertaining interest and support for the project from the concerned authorities. The second component consisted of identifying from among medical educators in the state, a core group of champions for the integration of gender into the undergraduate medical curriculum and building their capacity for gender-analysis of health issues. A third component involved the core-group of-medical-educators working with experts to revise the UG medical curriculum and make it gender-sensitive.

Medical educators were found to be unaware of the differences between the terms gender and sex. They relegated the issue of gender to the discipline of community medicine and did not think that gender should be integrated into other subjects of the medical curriculum. Capacity-building of medical educators from seven medical colleges under the Department of Medical Education and Research (DMER) exposed educators to ways in which gender gaps led to health inequities. The team prioritised five disciplines for integrating gender concerns: gynaecology and obstetrics, community medicine, forensic science and toxicology, internal medicine and psychiatry. Our team reviewed the undergraduate medical curricula of each of these disciplines from a gender-lens and identified topics for gender-integration. The core-group of medical educators worked with experts to weave-in gender issues as an integral part of what was already being taught. Innovative teaching methods and the fact that the revised gender-integrated curriculum did not increase the number of mandated teaching hours made the revised curriculum acceptable to teachers and students.

Working with a team of dedicated and trained medical educators as champions is an effective strategy to integrate gender into the undergraduate medical curriculum, and to successfully implement the revised curriculum in medical colleges.

Keywords : gender bias, gender gaps, medical curriculum, training of medical educators, integration of gender content in medical education

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Introduction

Scholars have critiqued the field of medicine as being gender-blind (Verdonk P et al., 2009) and male-biased because the body of medical knowledge views the male body as the norm, with men's experiences forming the basis for describing signs and symptoms of illness. Gender-based inequalities between women and men have not usually been factored-in as critical social determinants of health and disease. One of the consequences of gender-blindness in medicine is the limited gender-sensitivity among medical practitioners, contributing to the compromised quality of care. The World Health Organization (WHO) acknowledges the imperative of integrating gender in medical education specifically in the pre-service-training curriculum (World Health Organization (WHO), 2007) to reduce gender inequities in health. Globally, there have been efforts to integrate gender in the pre-service training of health professionals for at least two decades, in High-Income countries such as the US, Canada, Australia and Germany, and in LMICs including the Philippines and Thailand, among others.

In the context of India, systematic critiques of medicine and public health curricula have highlighted many lapses related to the inclusion of social determinants of health in medical education (Qadeer and Nayar, 2011). Evidence from studies points to gender biases prevalent amongst medical professionals and medical students. For example, a study among medical interns in Maharashtra found that almost 25 per cent of nearly 2000 students considered abortion to be morally wrong (Sjöström et al., 2014). Two-thirds of 75 undergraduate medical students in Pondicherry believed that spousal consent was essential for the provision of abortion services to women (Hogmark et al., 2013). Further, although health providers are the first point of contact for victims of violence against women, and can help women through their sensitive response, providers appear to be reluctant to acknowledge intimate-partner-violence as a health issue (Garcia-Moreno et al., 2015).

Early efforts to integrate gender in medical education in India were made by the Achuta Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology in Trivandrum, Kerala. As a part of this initiative, systematic gender-reviews of medical textbooks for gynaecology and obstetrics, forensic science, psychiatry and community medicine were published in the *Economic and Political Weekly* (2005); and two-week-long workshops were conducted to build the capacity for gender-sensitive teaching in medicine among mid-level medical educators from several Indian states.

Several efforts have also been made in India to address in-service training of medical professionals to respond to the issue of violence against women (Government of India 2016). In Maharashtra, Dilaasa has been an evidence-based crisis centre located in a public hospital to respond to gender-based violence. In 2014, the National Urban Health Mission (NUHM) replicated this model in 11 additional hospitals of Mumbai. Other states have also adopted the model of Dilaasa.

The National Health Policy of 2017 has acknowledged the adverse effects of gender-based violence on women's health and urged states governments to take steps to provide dignified, free and comprehensive services to such survivors/ victims both in private and public-sector health institutions. Although the National Health Policy also makes a passing reference to the urgent need to review and revise the medical and nursing curricula, it does not explicitly mention the integration

of social determinants of health and especially gender and other axes of social vulnerabilities (Government of India, 2017).

Against this backdrop, our paper describes an intervention to integrate gender concerns in the undergraduate medical curriculum of one state of India, viz., Maharashtra. The intervention was carried out by Centre for Enquiry into Health and Allied Themes (CEHAT), Mumbai in collaboration with the Directorate of Medical Education and Research (DMER), Maharashtra, and the Maharashtra University of Health Sciences (MUHS).

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Approach to integrating gender in medical education in Maharashtra

This section describes the implementation of different components of the collaborative project related to integrating gender into the curriculum.

Winning support for and conceptualising the project

Building on past efforts in India and abroad, CEHAT embarked on the 'Gender and Medical Education (GME)' project which aimed to integrate gender in the undergraduate medical curriculum.

The first component of our strategy was to win the support of the concerned authorities in the state of Maharashtra. We used the gender review of medical textbooks, published in 2005, to highlight to the Maharashtra University of Health Sciences (MUHS) and DMER, the gender gaps in the undergraduate medical curriculum. During discussions with DMER and MUHS, we discovered that the MUHS has the mandate to implement curricular changes to integrate gender concerns. The team, therefore, decided to implement GME as a joint project of CEHAT and DMER. We also agreed that medical educators from selected medical colleges in the state, trained by us on gender issues in health, will play a key role and be centrally involved in the rolling out of the project. This would ensure that there was ownership from medical educators for the revised curriculum and besides, we would be able to test the revised curriculum in the medical colleges, to ascertain the feasibility of implementing it.

To ensure that the integration of gender in the curriculum could be done without increasing the teaching load significantly, we had to decide on core disciplines and themes to include. A series of meetings and discussions led to identifying five disciplines taught in MBBS as the subjects in which we would integrate gender concerns. These were: gynaecology and obstetrics, forensic science and toxicology, community medicine, internal medicine, and psychiatry. We chose these disciplines because they are considered to be core disciplines of the undergraduate (UG) medical curriculum. These disciplines also offered significant scope for integrating gender perspectives in teaching UG students. Regarding themes through which we would introduce gender, we zeroed-in on public health concerns such as access to abortion, the challenges in ensuring access to safe abortion while also preventing sex selection, and impact of violence on women's health. These themes were found to be conspicuously absent in the existing undergraduate medical curriculum.

Seven rural medical colleges were identified to participate in the project, and medical educators from the five selected disciplines were to be trained in gender issues in health. We envisaged that champions for gender-integration would emerge from among this group.

Perspectives of medical educators on gender in medical education

Before identifying medical educators who would receive training on gender, we wanted to understand how medical educators perceived the role of gender and other social determinants in medical education as well as practice. A situational analysis exercise was conducted by CEHAT in 2014 with the seven participating colleges.

The situational analysis aimed to understand the gender perspectives of the medical educators and to elicit their opinions, suggestions, challenges, and apprehensions related to integrating gender in medical education and practice. As part of this study, we interviewed 60 medical educators, 24 other staff, and 12 medical students.

The findings of this study indicated that gender was understood by the medical educators in a variety of ways, from a demographic category to health issues of women, to violence against women or increased presence of women in the workforce. A few of the professors referred to gendered social systems and structures. Most of them were of the opinion that gender as a social determinant was irrelevant to the medical curriculum. They also opined that sexual harassment was an outcome of increased women's work participation. The study revealed stereotypes commonly held by educators about women patients. Some of these were that women gave vague histories while men provided clear histories; and that women reported more somatic complaints than men, which implied the presence of intentional hysterical syndrome among women.

The study further found that gender-biased-notions influenced how healthcare providers dealt with women seeking abortion care, or those seeking contraception. Doctors had no qualms stating that they did not offer medical termination of pregnancy to married women unless women had the consent of their spouse or family members. Healthcare providers firmly believed that decisions on abortion and contraception ought not to be the woman's alone. All requests for second-trimester abortions were suspected to be sex-selective and often refused or provided conditionally on women undergoing post abortion sterilisation. Several medical educators had encountered women subjected to violence and were able to list numerous adverse health consequences that women suffered as a consequence. And yet, all of them perceived violence as a legal issue and not a health issue. They could not see any role that medical professionals could play beyond providing medical treatment to a survivor of violence. (John, Bavadekar, Hasnain & Karandikar, 2015)

Building capacity among medical educators

A key component of incorporating gender concerns in medical curricula is the availability of medical educators in the form of trainers and for them to become "change agents" to make revisions in the curriculum and spearhead the implementation of the revised curriculum.

We chose to recruit middle-level faculty such as assistant professors and associate professors who had a fair amount of autonomy and many years of service ahead. They were from six rural government medical colleges and one private medical college and drawn from the five core disciplines in which we were to implement curricular changes.

We developed a two-week course for medical educators for Integrating Gender in Medical Education. The content of the course drew on the earlier courses for medical educators run by Achutha Menon Centre for Health Science Studies in Trivandrum in the early 2000s and on CEHAT's course on

the role of health professionals in addressing violence against women. Through intensive training, medical educators learnt about the social construction of gender and its interaction with other axes of privilege such as economic class or caste; examined assumptions about men and women that lead to discrimination in health care settings; discussed exclusion of disadvantaged communities from quality health care; and gained insights into the ways in which power and privileges operate in the provisioning and receiving of healthcare. We used participatory methods, which engaged the medical educators in co-construction of knowledge. Such training enabled them to understand how sex and gender relate to causation and response to health and illnesses. It assisted them in critically reviewing aspects of medical research that upheld gender biases or gender blindness, and led to health disparities.

The course also equipped medical educators with an understanding of client centred care and skills for planning for gender-sensitive services within hospital settings and for mainstreaming gender in undergraduate teaching. Specific emphasis was laid on contraceptive information and services; access to safe abortions while preventing sex selection, domestic violence, sexual violence, ethical issues such as informed choice and consent and issues related to privacy and confidentiality amongst others.

The course was conducted in two stretches of one-week each because it was not possible for medical educators to be away from their hospitals for any longer than that. We also had to organise an additional 'bridge' course to bring in new participants because of drop-outs from the original batch.

One way in which we sought to facilitate ongoing learning by these medical educators was to create a support group consisting of gender-sensitive subject-experts from each of their disciplines. Most of the mentors participated as resource persons in the course and continued to support the coregroup of 'champion' medical educators (to be called the 'core group' of medical educators, from here-on) during the process of gender-mainstreaming the curriculum.

The entire training process resulted in a dramatic change in the mind-sets of the core group. They said that they could not now teach in the same gender-blind or biased manner as they used to before the GME training. They raised concerns over abuse of women in the labour room and said that all labour wards ought to have a poster on the human rights of women in labour. Before the training, they had not been introduced to the idea that rude behaviour, derogatory comments about women's sexual activity, scolding the women, pushing women to be in lithotomy positions, etc. amounted to obstetric violence. The trainees said that the session on Population Policy had opened their eyes and convinced them of the need to focus on rights-based contraceptive services rather than family planning which only looked at married couples.

Evolving the gender-integrated curriculum

The core-group of medical educators who participated in the capacity-building played a crucial role in determining the process of curricular revision to integrate gender concerns. Some of the critical decisions they contributed to, were:

- A few stand-alone lectures on gender would not be adequate to bring about gender-sensitivity and awareness among undergraduate medical students
- The original plan (at the start of the project) of restricting the gender-content to issues of abortion,

sex selection and violence against women would not be adequate to build a gender perspective of medical students.

- Gender aspects would be interwoven into the academic curriculum of the five disciplines for all the nine teaching semesters. Each topic would be reviewed, and gender aspects would be developed for integration into the lecture on that topic.

We accepted the recommendations of the core-group, although this vastly increased the scope of the curriculum change. A review of the curricula in the five disciplines indicated the need to integrate gender concerns in 31 topics for gynaecology, 27 topics for community medicine, 11 topics of internal medicine and eight topics in forensic medicine and toxicology, across seven semesters of the MBBS curriculum.

Besides these topics, two foundation lectures were to be introduced, one on understanding gender and sex and the second on recognising the health consequences of gender-based violence. The first foundation lecture on gender and sex was to be introduced at the end of the para-clinical phase when medical students would have developed an understanding of anatomy, physiology, and biochemistry. The second foundation lecture on gender-based violence was to be introduced in the clinical phase, during the sixth semester, because undergraduate students would be attending clinics and would have the scope to respond to women seeking care following an incident of gender-based-violence.

For the curriculum revision in the five disciplines, we identified five focus areas to be woven into the teaching content. These were [a] Social construction of gender: Sex and gender [b] Gender as social determinant of health, [c] Gender-based violence [d] Abortion, contraception and sex selection and [e] Ethics in practice. We agreed that these focus areas were critical to gain a comprehensive understanding of gender and health.

The following section illustrates with examples how these focus areas were included in the five disciplines. The next step, and the most challenging one, was ensuring that the newly developed content fit the actual hours of teaching allocated to lectures. Efforts had to be made to ensure that there is an element of innovative teaching techniques, but at the same time, it had to fit in the time slot of a given lecture.

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Weaving gender into the five disciplines through five focus areas

1. Focus Areas One: The social construction of gender

The aim was to help medical students understand the social construction of gender, how gender operates as a system and defines roles of men and women based on expectations of society and accords a secondary status to women. We also decided to include the concept of transgender identities and alternative sexual orientations. None of these concepts were being taught in the five disciplines.

To cite a few examples, the discipline of community medicine comprises of topics such as general epidemiology, social psychology and social factors affecting health but fails to articulate gender as a social determinant of health. Psychiatry includes topics such as affective disorders, anxiety disorders but does not look at gender as a risk factor for such illnesses. Forensic science and toxicology cover topics such as sex verification tests. But there is no content on the various gender identities and the

fluidity of gender. It also does not carry any critique of the current tests being carried out, from an ethical perspective. Also, teaching in forensic science is restricted to male models, and hence students cannot visualize injuries and trauma caused to women and their bodies. The discipline of internal medicine is silent on how gender mediates communicable and non-communicable diseases. In the subject of gynaecology, there is no reference to gender-power inequalities and how it influences contraceptive use, medical termination of pregnancies and intimate partner violence. All the five disciplines are silent on health problems of transgender and intersex persons.

We give below a few examples of how this focus area was integrated. In **gynaecology and obstetrics**, the health needs of intersex persons was introduced within the topic of development of genital tract, congenital anomalies and chromosomal abnormalities. The topic on gynaecological and surgical conditions in pregnancy, genital prolapse and tumours included gender-related factors contributing to prolapse, such as lack of rest and heavy work-load in the postpartum period and multiple pregnancies. **Forensic medicine** and toxicology integrated gender as a social construct in the topic of personal identity. The limitations of sex verification tests to ascertain the sex of a person and how such tests are used against women were highlighted. Topics on medico-legal aspects of sex, marriage and infant death discussed the concept of "virginity" and lack of conclusive scientific evidence to determine virginity in women. The concept of virginity was challenged not rooted in science but in socially constructed notions of women having to be chaste or a virgin until marriage. International evidence and doctors statements against virginity tests were introduced.

2. Focus Areas Two: Gender as a Social Determinant of Health

Gender as a social determinant of health included the teaching on gendered nature of health conditions, diseases and treatment, gender bias in diagnosis, the stigma and other consequences of certain illnesses on women. Gender issues in current health programmes and policies and the gender differences in access to resources and health care were also included.

We found gaps in addressing gender issues across all the five disciplines. The teaching of aetiology and factors causing diseases does not discuss gender as a determinant that may predispose women to certain conditions. Topics on the manifestation of pulmonary disorders do not make a connection to women's role in cooking with wood/charcoal stoves in poorly ventilated kitchens, or to passive smoking. Community medicine lectures do mention gender but only when discussing family planning methods. Gynaecology too is silent on gender, and there is no mention of how gender is associated with maternal mortality or problems related to accessing abortion services.

In the revised curriculum, gynaecology and obstetrics integrated gender as a social determinant in topics such as contraception, physiology of conception and ovulation amongst others. It familiarised students with concerns such as a disproportionate focus on women's use of contraception as against no programmatic efforts towards male contraception, and the social pressure on women to prove their fertility. In forensic medicine, the topic of medico-legal aspects of sex, marriage and infant death integrated gender as a social determinant of health through a discussion on existing differential and biased treatment towards individuals such as sexual minorities. It introduced students to violations such as lesbians being made to undergo 'corrective rapes' while 'conversion therapy' was used on gay men, which have far-reaching impact on their health and violates their sexual rights.

In **community medicine**, topics on nutrition and environmental health integrated gender as a social determinant of health. The topic of nutrition introduced a lifecycle approach to dealing with anaemia for girls. It enabled them to understand how gender plays a role in lack of access to nutritious food right from the birth of a girl child to her old age and how factors such as neglect and secondary treatment lead to anaemia, osteoporosis and a host of other preventable health conditions. **Internal medicine** integrated gender dimensions in the introduction to infectious diseases such as Malaria, HIV and TB. Gender-related vulnerabilities were also connected to topics such as Irritable bowel syndrome (IBS) in case of gastrointestinal diseases .How decisions related to kidney transplantation are influenced by patient-gender was discussed in nephrology.

3 Focus Area Three: Gender-Based Violence (GBV)

There is considerable global and local evidence of health consequences of different forms of gender-based violence. WHO's clinical and policy guidelines (WHO, 2013) specifically articulate the role of doctors in recognising health consequences associated with violence against women and offer survivors treatment and psychological first aid. Our focus was to include information on the definitions and prevalence of various forms of gender-based violence and their linkages with health, the role of health providers in responding to GBV, the various laws, guidelines/ protocols and their mandate for doctors and health facilities.

In the gender-integrated curriculum, Gender-based violence (GBV) is integrated across all the disciplines in the context of physical, psychological and sexual health consequences for women, transgender, and intersex persons as well as gay men and lesbians. Two foundation lectures on gender-based violence were added to the disciplines of obstetrics and gynaecology and community medicine, one in the first semester and one in the sixth semester. The foundation lecture in Obgyn was about responses to different forms of sexual violence and recognising their effects as health issues while the foundation lecture in Community Medicine looked at gender-based violence from a public health perspective and thus focused on primary, secondary and tertiary care strategies to respond to health consequences of violence.

We integrated this theme into the **gynaecology** curriculum in topics such as puberty and menopause, antenatal care, pregnancy and infections of genital tract amongst others. It explained to the students that as healthcare providers, they should detect and respond to violence in pregnancy. It also pointed out that girls in their puberty /adolescence might experience sexual violence and that doctors should remember to ask about violence during history-taking. Health problems such as urinary and genital tract infections and prolapse of the uterus may be associated with violence, and so doctors needed to probe into these concerns sensitively.

In **community medicine,** information on health consequences of different forms of violence was included in the topic on sociology. The content dealt with physical, verbal, sexual as well as 'structural violence' and how those led to adverse health consequences amongst women The content also imparted skills in recognising signs and symptoms associated with violence and asking about abuse as part of clinical enquiry. In the **internal medicine** curriculum, integration of gender-based violence was done within the topic on 'poisoning'. Medical students were instructed to seek history related to consumption of poison and assess whether this was an accident or an attempt to end one's life. In **forensic science and toxicology** medical students were alerted to examining the correlation

between burns and domestic violence. The curriculum stressed on the importance of systematic medico-legal documentation and especially in cases of sexual violence was highlighted.

4 Focus Area Four: Abortion, Contraception and Sex Selection

The focus in this theme was on providing a nuanced understanding of the laws- on Medical Termination of Pregnancy (MTP) and on Prevention of Misuse of Pre-conception and Pre-Natal Diagnostic Techniques (PCPNDT) and clarifying that the PCPNDT Act does not restrict access to abortion services for women. Various issues concerning access to safe abortion and contraception were included, such as several current practices related to provision of contraceptive and safe abortion services that are significant barriers to women's access to these services. The topics have been integrated in two disciplines namely gynaecology and obstetrics and community medicine.

We adopted a human rights-based approach in both disciplines. In **gynaecology**, medical students are familiarised with gender as a risk factor to maternal morbidity and mortality. The reasons for women seeking abortions in the second trimester have been included to stress the fact that all delayed abortions should not be misunderstood to be sex-selective; women may have delayed the process because of other reasons such as lack of money, time and someone to escort them. Topics on permanent and temporary contraception methods provide students with an insight into coercive and poor-quality services related to tubal ligation. In **community medicine**, the topic on Family Planning Programme of India has been extensively revised. It now uses a gender-lens to address issues such as the continuing fear of population explosion, emphasis on targets, and over-reliance on camp-based approach for sterilisation. Students were encouraged to critique the term 'family planning' and the need to replace it with a more inclusive term 'contraception' which addresses needs of all individuals including those who may fall out of the traditional family unit and marriage. Students are enabled to carry out critical reviews of the National Family Planning Programme as these focus on female sterilisation as the main method of contraception and does not sufficiently focus on male contraception.

5 Focus Area Five: Ethical Issues in Practice

The focus area on ethical issues in practice included concepts of informed consent/refusal, privacy and confidentiality, recognition of patients' rights, and gender sensitivity in history taking and examination. It also encourages reflecting on the various biases prevalent in the medical discipline and to be aware of provider biases. Though ethical principles and values are covered in the first phase of MBBS curriculum in Semester 1 and 2, the content is restricted to very basic principles of doctor-patient relationships and dos and don'ts in medical research. Dilemmas and challenges encountered by doctors and ethical decision making find no mention in the curriculum

In **internal medicine**, we covered this theme within concepts and objectives of history taking. Emphasis was laid on implementing privacy and confidentiality and enabling patients in general and women patients, in particular, to be at ease to disclose their health concerns. Examples of situations such as disclosing HIV status and ethical principles involved were included. In gynaecology, we incorporated this theme within the topic of temporary and permanent methods of contraception. The inclusion enabled medical students to learn about ethical concerns such as those related to advising women to accept tubectomy, forced sterilisations of women and persuasion to opt for postpartum IUDs. The issue of obstetric violence was also introduced in the topic on normal labour

and physiology, highlighting concerns such as unnecessary C-sections, routine episiotomies and physical /verbal abuse in labour rooms.

In community medicine, the theme was integrated with the topic of family planning. It familiarises students with the concept of informed consent in the context of post-delivery contraception use by women and trained medical students to help women make an informed decision as compared to opting for routine sterilisation after two children.

The theme of ethics in forensic medicine and toxicology was introduced in topics such as medicolegal aspects of sex, marriage and infant death, wherein concerns of virginity testing and its ethics are highlighted. Similarly, the subject of personal identity provides an alternative perspective on the scientificity of sex verification tests. Ethical dilemmas related to surrogacy and assisted reproductive technologies are also dwelt upon. Further, the curriculum discusses medico-legal care for rape victims/ survivors in the light of the therapeutic role of doctors. Students are made aware of unscientific examination aspects such as the one finger test and comment on the hymenal status, which is a violation of norms of ethical conduct of doctors.

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Moving forward

Through the strategy of developing a core-group of champion medical educators who were gender-sensitive and equipped to carry out a gender analysis of health issues, we were able to bring about curricular revisions that were woven integrally into the current undergraduate medical curriculum and were acceptable to medical educators.

CEHAT-DMER's initiative for integrating gender concerns in the medical curricula has been a success.

The Academic Council of Maharashtra has approved the gender-integrated curriculum. A directive for implementation of the gender-integrated curriculum has been issued in 2018 to medical colleges across Maharashtra.

A positive beginning has been made. Moving forward will require champions within each medical college who would ensure and sustain the implementation of the revised curriculum. For these champions to maintain their interest, efforts need to be made at an institutional level to continually update and upgrade their knowledge on gender and health concerns. Further, for the gender-integrated-curriculum to be taken seriously, gender concepts should be embedded in the assessment and evaluation of undergraduate medical students.

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