

Integrating Gender in Medical Education

**SUBJECT : MEDICINE
COURSE : MBBS**

A Guide for Medical Teachers



Centre for Enquiry into Health
and Allied Themes (CEHAT),
Mumbai



Maharashtra
University of
Health Sciences



Directorate of Medical
Education and Research,
Government of Maharashtra

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Preamble

The work done by CEHAT, the Directorate of Medical Education and Research, Government of Maharashtra (DMER) and Maharashtra University of Health Sciences (MUHS) to increase the knowledge and understanding of medical students about gender considerations (gender inequality, gender roles and behaviours, gender bias) as important social determinants of health and health care is to be commended.

This important effort directly responds to recommendations made at a 2006 meeting organized by WHO on *Integrating gender in the curricula for health professionals* that included to: Ensure that doctors and other health professionals are offered training with a gender-competent and human rights perspective; encourage and train health professionals to advocate for gender equality and health equity and to serve as agents for change; offer this training across all disciplines and along the learning continuum from undergraduate through continuing professional development; and work towards establishing accreditation standards on gender competencies within curricula.

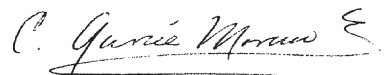
Medical education for long used the 70 kg male as the norm for determining, for example, dosages of drugs. It is only in the last few decades that awareness has grown about the fact that sex-based differences in women's bodies, related to size, distribution of fat, hormones and other characteristics, mean they may metabolize drugs differently and may at times require different dosages. It has taken time for medicine to pay attention to biological differences between women and men, beyond those related to the reproductive system, and to understand how these differences may manifest themselves in specific diseases or conditions, such as cardiovascular disease. Better understanding has developed also on how social constructions of femininity and masculinity (i.e., gender norms and behaviours) and the related unequal power relationships between women and men (i.e. gender inequality) are important risk factors and can impact negatively on health. Biological differences interact with gender inequality in ways that adversely affect the health of women and girls in many societies. Furthermore, gender interacts with other inequalities related to class, caste, ethnicity, migrant status that can exacerbate the negative health impacts. Gender biases may also affect the treatment and care they receive.

It is important that doctors have a clear understanding of how both biological differences and gender and other inequalities impact different aspects of health, how disease manifests itself, as well as the capacities of patients to protect themselves from disease. Doctors with this competency are more likely to provide appropriate and relevant care to their patients, be aware of the doctor-patient power differential and communicate

sensitively with patient of different ages, status and cultures. They are also more likely to identify and assist women and children affected by violence and abuse, an extreme manifestation of gender and other inequalities.

The content in these modules has been developed with attention to how to integrate gender-related content within existing topics and with minimal additional time requirements which make it more likely that this material will be used beyond this initial group of medical colleges.

A new generation of physicians with this knowledge and competency can lead to better medicine and better health care for all.



Claudia García-Moreno E *
World Health Organization

*This is not an endorsement of all the content in the modules. The views expressed are my own and do not necessarily represent the views or policy of the World Health Organization.



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Foreword

I am pleased to inform you that Maharashtra University of Health Sciences (MUHS) has taken an important step towards “Gender mainstreaming” and “Gender sensitization” by suggesting gender-integrated modules in the existing MBBS curriculum. It is a known fact that recognition of social determinants of health can inform and make health services gender sensitive. It is with this objective that an innovative project on Integration of “Gender in Medical Education” was implemented under the aegis of Maharashtra University of Health Sciences (MUHS) by Directorate of Medical Education and Research (DMER), Centre for Enquiry into Health and Allied Themes (CEHAT) and was supported by UNFPA.

The gender-integrated curriculum was rigorously reviewed at different stages, as is the case with any new additions to the academic curriculum. The Authorities of the University has resolved to implement the gender integration modules with an intension that it would complement the existing MBBS teaching and these modules are available on the University website www.muhs.ac.in.

I am happy to announce that these modules may be implemented soon in the Medical curriculum. Medical educators in Maharashtra are being trained to use these modules. I am pleased to state that MUHS is the first university to implement the directions of NHP (2017) which speaks of the urgent need towards gender mainstreaming. Integration of Gender in medical education is definitely a step forward in that direction

Prof. Dr. Deelip G. Mhaisekar

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Preface

Integration of "Gender in Medical Education" (GME) has been a unique and challenging initiative of the Department of Medical Education (DMER), Maharashtra University of Health Science (MUHS) and Centre for Enquiry into Health and Allied Themes (CEHAT) supported by UNFPA. The Project was undertaken in seven medical colleges of Maharashtra with the aim to sensitise medical students and health professionals to gender inequity in health. As an outcome of the project a cadre of GME trained educators emerged, who enthusiastically participated in teaching gender integrated modules to the medical students.

An important contribution of this project has been the development of "Gender Integrated Modules" for the undergraduate medical curriculum for 5 disciplines namely-Obstetrics and Gynecology, Community Medicine, Internal Medicine, Forensic Medicine and Toxicology and Psychiatry. These modules have been specifically developed by trained medical educators in collaboration with CEHAT and experts in the field of gender equity and health. As this is the first such initiative in India, rigorous reviews of these modules were carried out by the board of studies and academic council of MUHS, Maharashtra.

The efficacy of these modules was tested by undertaking a research study in three of the seven medical colleges of Maharashtra. The study findings show a positive change in the overall gender attitude of medical students like a gender informed understanding of communicable and non communicable diseases, gender sensitive approach to the issues of violence against women (VAW), and sexual violence. Care had to be taken that the number of teaching hours are not increased. Hence, the focus was on using innovative teaching techniques such as case studies, role plays, games and quizzes to enhance learning and enable interactive sessions.

I would like to congratulate the medical educators and CEHAT for having undertaken such an important activity of developing gender integrated modules for five disciplines. I urge medical educators from different medical colleges of Maharashtra to use these modules with medical students so as to create gender sensitive doctors in the state of Maharashtra.

Dr. Pravin H. Shingare
Director Medical Education & Research,
Mumbai

From the Coordinator's desk

CEHAT has been working on the issue of women and health since its inception. It has been able to generate critical evidence on issues of access, discrimination and neglect of health equality in policy, programmes and practice. It has also been at the forefront in policy and legal advocacy on the issues of access to abortion services, gender insensitivity in healthcare response to VAW and sex selection/determination. The work also involved gender sensitisation of health providers and has been ongoing. A common issue that emerged was the need to impact the medical curriculum and make it gender sensitive so that doctors are sensitive to gender concerns when they enter the field.

The Integrating Gender in Medical Education (GME) initiative of CEHAT, DMER, MUHS and UNFPA was conceptualized after a lot of deliberation. Building on the earlier experiences in India and abroad, CEHAT decided to work closely with medical professors across 7 medical colleges in Maharashtra to train them as core faculty and bring about changes in medical curriculum in consultation with them. This was probably the best strategy as once the 19 professors completed the GME training; they were able to identify the gender gaps in their curriculum. The gender gaps were identified for every lecture of the UG MBBS curriculum as prescribed by the MUHS. Later, the CEHAT team along with the mentors and gender experts developed the gender content for each lecture. This was again reviewed by all the 19 trained faculty, mentors and gender experts.

The modules are supplementary efforts to existing MBBS curriculum and are structured with key messages for medical educators, and knowledge, skills and attitude changes expected in medical students. The section on content in the modules specifically provide examples of gender concerns related to health conditions and evidence snippet of steps by which gender can be integrated in a medical topic that is being taught by an educator. Each module has listed details of resources which can be read by the educator at their convenience. Case studies, debates, group discussions have been included as participatory exercises to assist medical educators in engaging students on gender and health.



Sangeeta Rege,
Coordinator, CEHAT

Acknowledgement

At the outset we acknowledge the contribution of several individuals and agencies in the preparation of these modules. We are grateful to Directorate of Medical Education and Research, Government of Maharashtra (DMER) and Maharashtra University of Health Sciences (MUHS) for guidance and encouragement received at all stages of the GME project, in particular Dr. Pravin Shingare who led the entire initiative. We also thank the Board of Studies and Academic council of MUHS (2016-2017) for supporting the Integration of Gender in Medical Education and approving the modules. We extend our heartfelt thanks to UNFPA for their funding support in carrying out this activity.

These modules have been developed jointly by the CEHAT team, the trained GME faculty, our mentors and gender experts. We thank each of them for their valuable feedback and suggestions on each draft. We would like to thank Dr. Shrinivas Gadappa and Dr. Priya Prabhu for guiding us at CEHAT through the project phase for administrative, strategic and intellectual inputs. They were always available and helped us navigate the system. We thank Dr. Hrishikesh Wadke for coming on board for developing the modules and helping in the pilot testing of the tools for the impact study. We are grateful to Anagha Pradhan for her extensive inputs in developing the modules for Community Medicine.

We also extend our sincere thanks to external reviewers for their critical feedback. We thank Dr. Manisha Gupte and Dr. Padmini Swaminathan for reviewing all the modules, Dr. Asha Oumachigi for Obstetrics and Gynaecology module, Dr. Rakhil Gaitonde for Community Medicine module, Dr. Rajendra Bangal for Medicine and Forensic Medicine and Toxicology module and Dr. Roopali Shivalkar for Psychiatry module. We thank Tejal Barai-Jaitly for critically reviewing the modules and helping in the finalisation of the content. We are grateful to Dr. Padma Prakash for language and content editing of the modules. We also thank Priyanka Shukla, Apurva Joshi and Vijay Sawant for helping us with referencing of the modules. We are grateful to Saramma Mathew for proof reading of all the modules.

We take this opportunity to thank our former colleagues from CEHAT who have contributed to the development of modules; we would like to thank Asilata Karandikar, Shreya Sen and Lakshmi Priya Menon who were involved in initial stage of module development. We would like to acknowledge Priya John and Ameerah Hasnain for their contribution in the content development for the Intervention modules related to the gender in medical education action research.

List of Contributors

The gender integrated modules have been a product of the joint efforts of 20 GME trained medical educators from seven medical colleges of Maharashtra in collaboration with CEHAT.

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Table of Contents

Sr.No	Lecture Name as per curriculum	Gender content added	Page No.
Semester 4			
1	Introduction to medicine	Gender and medicine	15-20
2	Concepts and objectives of history taking	Integrating gender in history taking-informed consent, privacy and confidentiality	21-24
Semester 5			
3	Introduction to infectious diseases	Gendered nature of communicable diseases	25-32
4	Infectious diseases: HIV	Gender and HIV	33-40
5	Infectious diseases: malaria	Gender and malaria	41-45
Semester 6			
6	Respiratory system	Gender and respiratory system	46-51
7	Tuberculosis	Gender and tuberculosis	52-58
Semester 7			
8	Haematology	Gender and haematology	59-63
Semester 8			
9	Miscellaneous: poisoning	Gender and haematology	64-69
10	Nutrition	Gender and nutrition	70-73

Sr.No	Lecture Name as per curriculum	Gender content added	Page No.
11	Gastroenterology, hepatobiliary system and pancreas	Irritable bowel syndrome as a bio-psycho socio illness	74-75
12	Neurology	Gender differences in the onset, prognosis and course of common neurological diseases such as epilepsy	76-79
13	Cardiovascular system	Gender and cardiovascular diseases	80-86
14	Nephrology	Kidney transplants and emerging ethical issues	83-86
15	Endocrine disorders	Gender and diabetes	87-89
16	Gender sensitive clinical checklist		90-93
17	Multiple choice questions (MCQ) with answer key		94-100

Abbreviations

ACS - Acute Coronary Syndrome
AIDS - Acquired Immuno Deficiency Syndrome
ALRI - Acute Lower Respiratory Infection
ANC - Ante Natal Care
ART - Anti Retro Viral Treatment
BAC - Blood Alcohol Concentration
BMI - Body Mass Index
CHD - Congenital Heart Disease
COPD - Chronic Obstructive Pulmonary Disease
CRP - C - reactive Protein
CSW - Commercial Sex Worker
CVA - Cerebro Vascular Accident
CVD - Cardio Vascular Disease
DM - Diabetes Mellitus
DOTS - Directly Observed Treatment-Short course
DV - Domestic Violence
GATS - Global Adult Tobacco Survey
GI - Glycemic index
HbA1c - Haemoglobin A1C
HCP - Health Care Providers
HDL - High Density Lipoprotein
HIV - Human Immuno Deficiency Syndrome
HTN - Hypertension
IAP - Indoor Air Pollution
IBS - Irritable Bowel Syndrome
IPTP - Intermittent Preventative Treatment in Pregnancy
IUD - Intra Uterine Device
IUGR - Intra Uterine Growth Retardation
LDL - Low Density Lipoprotein
LLIN - Long-Lasting Insecticidal Nets
MCQ - Multiple choice questions
MI - Myocardial Infarction
MTCT - Mother-to-Child Transmission
NFHS - National Family Health Survey
NSS - National Sample Survey
OBGYN - Obstetrics and Gynaecology

OC - Oral Contraceptive
OPD - Out Patient Department
PTCT - Parent-to-Child Transmission
PNC - Post-Natal Check Up
RNTCP - Revised National Tuberculosis Programme
RTI - Reproductive Tract Infection
SEAR - South East Asian Region
SES - Socio-Economic Status
SGBM - Sex and Gender Based Medicine
STI - Sexually Transmitted Infection
SWAA - Society of Women against AIDS in Africa
TB - Tuberculosis
TG - Transgender
UNGASS - United Nations General Assembly Special Session
VTE - Venous Thrombo-embolism
WHO - World Health Organisation

Note to Educators

In broad terms, sex is a biological construct where living things are characterised as male or female according to chromosomal complement and reproductive organs. Gender refers to a person's social and cultural self-representation and behaviour, as man or woman. Sex and gender are interrelated in terms of health and illness, such that one's social environment and behaviour, both of which are gendered, influence one's biology. Both sex and gender must be taken into consideration in medical education, practice and research.

Overall clinical care of women has been designed and based on research findings that have largely focused only on men. This has resulted in a significant irrationality in treatment of women's medical problems. In complex ways, these result because of a lack of acknowledgement of the biological differences in aetiology and presentation of disease or the differences in pharmacokinetics leading to problems ranging from ineffective treatment or drug toxicity. There is also a conscious or subconscious gender bias in the physician-patient interaction. This makes a strong case for inclusion of sex and gender based medical concepts at all levels of the curricula for training and education of health professionals. If there is to be a paradigm shift in the approach and treatment of women's illnesses; reforms in curricula and content of medical education will be a key factor.

Topics included under the rubric of "women's health" or "men's health" can no longer be limited to reproductive issues or only those conditions that can be observed in a single sex, e.g., prostate cancer. Rather, Sex and Gender Based Medicine (SGBM) in medical education must include a discussion of similarities and differences between sexes and genders in the aetiology, risk factors, prevention, presentation, and response to treatment for all health conditions. There is scope for introducing gender issues in medicine in the Semester 4, where the terms sex and gender, how gender affects health, how symptoms should be analysed using gender lens with emphasis on privacy; confidentiality etc. can be effectively addressed. As, in this 4th semester, the duration of time spent by students in clinics will be more than in theory lectures, and also, as this will be the first clinical posting of students there will be more enthusiasm among students; and so they will be more receptive to new concepts, influencing their thinking process. Hence there is more scope for activities like role play, case studies, which should be promoted in order to achieve the goal.

Semester 4

1. Introduction to Medicine



Gender content added : Gender and Medicine

Lecture name	: Introduction to Medicine
Subject	: Medicine main
Semester no	: 4
Duration	: 1 hour
Methodology	: Lecture, Discussion
Resources	: 1. Zelek, B., Phillips, S.P., Lefebvre, Y. (1997). Gender Sensitivity in the Medical Curricula. <i>CMAJ</i> , 156(9), 1297-1300. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1227332/
Handouts	: ---

Key Points

1. Sex and gender are conceptually different. Sex is the biological difference between males and females, while gender refers to the social, economic and cultural attributes and opportunities associated with being male or female in a particular setting at a particular point in time.
2. Existing gender inequalities in our society make it important to recognise gender as an important aspect in determining quality of health and healthcare that women receive.
3. Being aware of gender as a determinant of health and healthcare helps to provide gender sensitive care.

Learning Outcomes

Knowledge	Skill	Attitude
Student should be able to understand how gender affects health of an individual	Student should develop competence in integrating gender concerns while diagnosing an illness and creating a treatment plan	Student should become sensitive to the fact that gendered differences affect health and health care
Student should be able to recognise the importance of gender sensitivity in treating individuals		Student should realize that gender differences create disparities for people in accessing health services

Context: When teaching 'Introduction to Medicine'

Note to Educator: *Explain the different dimensions of gender and its implication on the health of an individual.*

Content

I. Sex and gender

- World Health Organisation (WHO) defines "sex" as the biological and physiological characteristics that define men and women.
- "Gender" refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women.
- Since gender is a social construction that goes beyond a biological body, it manifests along categories like caste, class, age, disability, mental health, sexual orientation, ethnicity, etc in determining a person's quality of life.
- Gender, describes the array of different roles and relationships, personality traits, attitudes, behaviours, values, relative power and influence that a particular society assigns to men or women.

II. Spectrum of gender¹

- Most societies including medical professionals view sex as a binary concept, with two rigidly fixed options: male or female, both based on a person's reproductive functions (genitals, sex chromosomes, gonads, hormones, reproductive structures) such binaries fail to recognise persons body is a complex relationship of dynamics between the body, identity and expressions.
- It is important to recognise that while people are born with one or the other form of genitals, there are naturally occurring intersex conditions
- Gender identity is an individual's 'internal experience of naming gender. A child who was assigned a male sex on birth but as he grows up does not identify with it is called a transgender person. Transgender is an umbrella term for persons whose gender identity, gender expression or behavior does not conform to that typically associated with the sex to which they were assigned at birth.

Intersex is a term used for persons whose anatomy is not considered typically male or female. Intersexed genitals are not a medical problem. Variations, which may include for instance, a large clitoris, absence of vagina, congenital absence of gonads among others. They may signal an underlying metabolic concern, but they themselves are not diseased; they just look different. Metabolic concerns if present in intersex persons should be treated medically.

III. Gendered aspects of health

- More women than men are likely to be anaemic, not only due to biological reasons peculiar to women such as menstruation, but also due to social and cultural reasons that result in lifelong malnutrition and neglect of women. Gender clearly plays an important role here. Women are the last to eat in the family and in poorer families the food available to women may be insufficient or nutritionally inadequate. NFHS 3 data shows that 55% of women in India are anaemic. Further, poor nutrition among girls contribute to the higher prevalence of anaemia among adolescent girls than among boys.

¹ Gender Spectrum (n.d.) *Understanding gender*. Retrieved from <https://www.genderspectrum.org/quick-links/understanding-gender/>

- India continues to be one of the 22 countries with a high burden of TB infections. Malnutrition and food insecurity can exacerbate the risk of TB amongst other factors. Although globally and nationally more men than women die of TB related health consequences, we cannot ignore how gender influences the clinical presentation, experience, meaning, behaviour and treatment of TB. A gender analysis helps understand the dynamics of vulnerability and disadvantage faced by women and provides multiple potential points of intervention for controlling the disease.
- Women diagnosed with debilitating illnesses such as HIV, TB, and other communicable diseases that have a taboo; are at higher risk of stigma and desertion by their families than men. Further, in complex ways economic constraints weigh more heavily on women than men. Yet again, women's mobility is often dependent on men or restrictions imposed by men, which further affect their ability to get to a health facility. All these reasons may well prevent women from approaching the health facility early enough for good care, and affect compliance.
- Medical professionals often stereotype women's health problems inadvertently. For example, medical language used to describe the problems of women, especially in the reproductive age group centres on their reproductive processes and functions, often ignore systemic issues. Terms such as women being prone to 'hysteria' still find mention in medical textbooks because it has been considered in ancient Greece that the uterus (hysteria in Greek) wanders all over the body. This has historically and traditionally given rise to misconceptions and myths surrounding women's reproductive organs.
- More women than men appear to suffer from lower back ache, but this is often disregarded by health care providers and is labeled as 'malingering' or as 'psychosomatic' complaint. A gender lens allows us to see why women are more prone to lower backache. It recognises the fact that women put in long hours of household work that include chores such as fetching water, cleaning, with little time for rest, particularly after child birth. While women may be wage earners, working outside the house, they are still expected to fulfill household responsibilities. This double burden of work and responsibility aggravates their health issues, such as back problems. Women's work outside the home tends to be more back-breaking

than men's assigned task such as transplanting or weeding, an operation that involves postures which strain the back and hips. Women involved in industrial work or domestic wage² labour have to stand or sit for long hours, and perform repetitive tasks. A gender lens allows for a more nuanced and comprehensive diagnosis and treatment schedule.

- The multiple domestic responsibilities, pressure to earn a daily living as well as neglect of women's health by the family can cause delay in treatment. Hence, gendered repercussions of illness should be accounted for while treating women suffering from tuberculosis or any stigmatised health condition such as leprosy, HIV / AIDS, RTIs or STDs.

IV. How may we make medicine more gender sensitive³?

- A gender sensitive focus on women's health and health problems is one way of correcting the gender imbalance in diagnosis and treatment in public and private institutions. Being aware of gender as a determinant to access health services helps doctors to recognise differences in risk factors, responses to interventions, experience of social issues, prevalence and manifestations of the illness and biases that affect their care. A well-known case at this point is the presentation, diagnosis and treatment of angina pectoris (chest pain) by men and women. Men present their symptoms in a classical or typical manner, whereas women present it atypically. Because of physicians' bias (focus on typical symptoms and presentation style) men are easily diagnosed as suffering from severe angina pectoris, while women with the same problems (but different presentation style) are left unnoticed. Men were more often than women referred to a specialist.⁴
- Medicine can be made gender sensitive by paying attention to the content, language and process used in the course of teaching medical curricula. Few examples include: when sex of a person is not relevant to the medical problem, terms such as person should be used while teaching rather than he or she. Men and women should be

² Shatrugna, V., Soundarajan, N., Sundaraiah P., & Raman, L. (1990). Backpain, the Feminine Affliction. *Economic Political Weekly*, 25(17), WS2-WS6. Retrieved from http://www.epw.in/system/files/pdf/1990_25/17/review_of_women_studies_backpain_the_feminine_affliction.pdf

³ Zelek, B., Phillips, S. P., Lefebvre, Y. (1997). Gender Sensitivity in the Medical Curricula. *Canadian Medical Association Journal*, 156(9), 1297-1300.

⁴ Çelik, H. (2009). *Gender Sensitivity in Health Care Practices: From Awareness to Action*. Universitaire Pers Maastricht. Retrieved from <https://cris.maastrichtuniversity.nl/portal/files/1591422/guid-9bb3d4f0-1d5a-4a7e-ad3a-0aa02fb96697-ASSET1.0>

equally represented while teaching patterns of illness. Social emotional and economic components of health and illness should be integrated in all teaching to make medicine gender sensitive.

- Medical educators should develop skills in medical students to design research that is inclusive of and that recognises difference among unequally placed individuals by including participants of both sexes and of different castes, religions, races, ages and other characteristics wherever relevant.

Role of Doctor

- A doctor should be aware that gender can affect predisposition to certain illnesses, and can affect physical and financial access to health care, and should prepare effective strategies to care for women.

Semester 4

2. Concepts and objectives of history taking



Gender content added : Integrating gender in history taking, informed consent, privacy and confidentiality

Lecture name	: Concepts and objectives of history taking
Subject	: Medicine main
Semester no	: 4
Duration	: 1 hour
Methodology	: Lecture, Discussion, Case Study or skit
Resources	: 1. More, A. (2010, July 13). <i>Charter of patients' rights and responsibilities</i> . [Blog Post]. Retrieved from http://patientright.blogspot.in/2010/07/charter-of-patients-rights-and.html
Handouts	: ---

Key Points

1. Patient's right to consent, confidentiality and privacy, among others, are integral to ensuring good healthcare.

Learning Outcomes

Knowledge	Skill	Attitude
Student should recognize that assurance of confidentiality and privacy can enable seeking detailed history from women	Student should develop skills in seeking informed consent and communicate assurance of privacy and confidentiality while history taking	Student should recognize that detailed history seeking is critical as an illness cannot be often explained through a biological lens

Context: When teaching history taking

Note to Educator: Explain to students the importance of history taking while recognizing the psycho-social context of the patient's symptoms and signs, and explain and document informed consent, respect privacy and maintain confidentiality.

Content

I. Importance of history taking

- History taking should be considered an important activity in the course of treatment of a patient. Patients in general and women in particular, may not be able to give a linear history. It is the responsibility of the doctor to make them comfortable and seek history with use of non-technical language. Also, history seeking may be important to understand underlying causes of morbidity.
- History taking becomes even more important in cases where the symptoms presented by the patient are difficult to explain using conventional physical and biological models.

II. History taking with women

- History taking in the case of women acquires special significance under several circumstances. A gender-biased approach, which assumes that medically unexplained symptoms in women may be attributable to their excessive concern about their health or their proneness to seek attention by professing health problems is not only demeaning to women but is counterproductive and will not generate a sound diagnosis. To illustrate if a woman is repeatedly presents with GI (Gastro intestinal) complaints then it is important for a doctor to go beyond a biomedical approach. Diagnosing the woman with a GI (Gastro intestinal) complaints and treating the condition is important, but at the same time gender roles, underlying stress, possibility of violence may also be leading to a recurrent GI condition. Hence detailed history seeking becomes crucial to look for prevention of repeated health conditional.⁵
- While taking history in clinics it is important to focus on identifying issues related to privacy, dignity, confidentiality, taking an informed consent, being non-judgmental. For example, a woman needing to undergo an internal examination for hemorrhoids should be offered privacy; sufficient time to undress; with only the examining doctor present with another woman (if the doctor is male), Due to cultural contexts, women

⁵ Chang, L., Heitkemper, M.M. (2002). Gender differences in irritable bowel syndrome. *Gastroenterology*, 123(5), 1686 -1701. Retrieved from [http://www.gastrojournal.org/article/S0016-5085\(02\)00302-5/fulltext](http://www.gastrojournal.org/article/S0016-5085(02)00302-5/fulltext)

may feel embarrassed to expose intimate body parts more than men. Doctors should recognise that such examinations can increase distress and hence all efforts should be made to explain the importance of it in simple language as well as steps involved in a rectal examination. The patient's dignity and self-respect should be maintained throughout the procedure.

- Another challenging area of health care relates to disclosure of HIV status. The disclosure should not happen in the presence of family members, including husband / partner. It maybe shared with the latter only with the patient's consent. Disclosure of illness, especially a stigmatised one can lead to various problems including domestic violence, discrimination and desertion for women. Such information must also be dealt with sensitively by staff of the hospital. Health facilities need to develop appropriate guidelines to guarantee confidentiality of such information.⁶
- Doctor should be non-judgmental while treating women who are marginalised, for example-sex workers, transgender women or lesbians.
- Clinical case presentations in the course of teaching, should, as far as possible involve patients of both sexes, enabling students to examine sex differences in patient presentation, diagnosis, and treatment.

Role of Doctor

- Doctor should develop skills to identify the psychosocial context of reported symptoms and be able to go beyond biomedical approach, particularly for unexplained symptoms.
- Doctor should explain the illness, diagnosis, planned procedure, modality of treatment, complications if required treatment is not undertaken, available alternative treatment modalities, inherent risk factors etc. in language that the patient understands.
- Doctor should respect the right of the patient to privacy at all times.
- Doctor should maintain confidentiality of each and every aspect of the patient's personal, professional, social, cultural and medical knowledge that s/he has gathered during her management.

⁶ Patel, V., Pednekar, S., Weiss, H., Rodrigues, M., Barros, P., Nayak, B., & Mabey, D. (2005). Why do Women complain of vaginal discharge? A population survey of infectious and psychosocial risk factors in a South Asian community. *International Journal of Epidemiology*, 34(4), 853-862.

Activity

A case scenario is described below. One student can act as a doctor, and another as a woman visiting OPD with repeated complaints of white discharge. The skit should be around history taking. It should depict the care and sensitivity that is needed in such cases and what precautions should be ensured when a woman comes with such complaints. The educator should get rest of the class to comment on the history taking and provide inputs to make it better, technically and in terms of gender awareness. The skit should contain dialogues pertaining to issues of 'privacy' and 'confidentiality of information'.

Sunita is a 22-year-old woman. She repeatedly visits your clinic with complaint of white discharge. Her pathology tests show that she does not have any infection. But she repeatedly returns with the same complaint. She vaguely mentions about problems in her household. She works as a domestic help and earns to support her household and children. Her husband does not have a job. She mentions that she feels nervous and anxious all the time. She has a feeling that her life is worthless. How will you deal with Sunita's complaints and issues?

Key Points for Discussion

1. Discuss with the woman that the underlying reason for the medical complaint is not being found in the pathology test results.
2. Encourage her to speak about her relationship with her husband and assure her of confidentiality of information revealed by her. Sensitively ask her about underlying violence. If she discloses violence, communicate to her that help is available.
3. Discuss the health consequences of violence on her. Explain to her that if she is being forced to have sex, it is a form of violence.
4. Suggest to her that the doctor can speak to her husband about the reason for white discharge. This will be done based on her informed consent. Only if Sunita agrees, the doctor can ask the husband to come to the OPD.
5. Assess whether she feels safe to return to her marital house. If not put her in touch with the hospital social worker to assess safety and find an alternate safe place.

Semester 5

3. Introduction to infectious diseases



Gender content added : Gendered nature of communicable diseases

- Lecture name : Introduction to infectious diseases
- Subject : Medicine main
- Semester no : 5
- Duration : 1 hour
- Methodology : Lecture, Group Activity
- Resources : 1. World Health Organization (2011). *Taking Sex and Gender Into Account in Emerging Infectious Disease Programmes: An Analytical Framework*. Geneva, Switzerland: WHO. Retrieved from http://www.wpro.who.int/topics/gender_issues/Takingsexandgenderintoaccount.pdf
2. World Health Organization (2011). [Annexure 5]. Handout-Sample gender analysis matrix: malaria In Gender mainstreaming for health managers: a practical approach. Geneva, Switzerland: WHO. Retrieved http://www.who.int/gender/mainstreaming/Module_2_Handout_Gender_and_Malaria.pdf
- Handouts : ---

Key Points

1. Understanding the gendered nature of infectious diseases helps health care providers to take better care of women's unique health needs.
2. The following template will enable students to understand infectious diseases through a gender lens. When teaching infectious diseases, it is recommended that this template be followed wherever possible.
3. Traditionally, little attention has been paid to sex and gender differences in infectious diseases. Understanding the interaction between gender roles and infectious disease can lead to important insights into transmission patterns and facilitate strategies for

outbreak prevention and control. This may not only control and reduce disease transmission but increase cooperation with public health interventions and acceptance⁷ of health promotion and protection measures. In other words, recognising male-female differences can directly impact the efficacy of disease control programmes, and the likelihood of better outcomes. Such considerations can also reduce health inequalities between men and women and in some instances, reduce discrimination based on sex and thereby promote human rights.

Learning Outcomes

Knowledge	Skill	Attitude
Student should understand how women's gender roles and socioeconomic condition and make them vulnerable to many diseases	Student should demonstrate the skill in identifying risk factors and develop treatment protocols for infectious diseases in women	Student should realise how gender affects risks and treatment related to infectious diseases

Context: While teaching the topic on infectious diseases.

***Note to Educator:** The educator should give examples of various infectious diseases. While using the following template, focus should be on how the incidence of these infectious diseases varies for men and women and how gender plays a role in treatment seeking behaviour of men and women and on the fact that treatment seeking of women is compromised owing to many socio economic, cultural factors. The educator should explain how stigma negatively affects treatment seeking of women. The discussion should also focus on accessibility and availability of treatment and prevalent notions that affect treatment seeking of women because of their restricted mobility. Diseases such as HIV, HPV, and TB and leprosy have social and cultural consequences on women such as abandonment, desertion and domestic violence. A woman suffering from a stigmatized condition may also face social hindrances, such as finding a spouse through an arranged marriage.*

⁷ World Health Organization (2011). *Taking sex and gender into account in emerging infectious disease programmes: an analytical framework*. Geneva, Switzerland: WHO. Retrieved from http://www.wpro.who.int/topics/gender_issues/Takingsexandgend_erintoaccount.pdf

Content

I. Influence of gender on infectious diseases

- Gender identities, status, roles and responsibilities influence vulnerability to disease, access to health care, and the impact of disease on women, men, girls and boys.
- In many countries gender differences exist in access to and control over resources, decision-making power in the household and roles and activities. These can limit women's ability to access health care for themselves and their children.

II. Women and infectious diseases

- A) Gender roles can be helpful or detrimental to the health of men and women. A major role for gender analysis in infectious diseases is to identify those gender-related practices which put women and men at higher or lower risk of infectious diseases, to be in a position to discourage harmful practices, and encourage helpful ones. It is widely believed that biological factors are more difficult to change than gender-related and for this reason it is considered that the public health focus should incorporate gender-related factors, rather than focus only on biological factors.⁸
- Gender analysis of illnesses can enable an understanding on links to risk factors, exposure, intensity of infection, duration of illness, care during illness, and impact of illness on family life. But much of the research to date has focused on the differential impact of infectious disease on women, related to their biology.
 - Increasing body of research is also bringing forth perceptions and interpretations of diseases based on cultural contexts. However, there has been a recent focal shift arising from the recognition that while an exclusive focus on women has done much to uncover how women in particular are affected, more information is needed about how a disease comparatively affects both sexes if infectious disease approaches are to contribute to gender equity.⁹

⁸ Allotey, P., Gyapong, M. (2005). *The gender agenda in the control of tropical diseases : A review of current evidence*. Geneva, Switzerland: WHO. Retrieved from http://apps.who.int/iris/bitstream/10665/69067/1/TDR_STR_SEB_ST_05.1.pdf

⁹ Doyal, L. (2001). Sex, gender, and health: the need for a new approach. *BMJ: British Medical Journal*, 323(7320), 1061.

B) Inequalities in case detection:

- Gender inequities can lead to differences in case detection and health service utilisation rates. A community-based survey in India showed women had a higher TB morbidity rate, but used health services less.¹⁰
- A study in Thailand found male-female ratios of 6:11 in attendance at malaria clinics, although population-based studies in the same area found no difference in the prevalence of infection. These studies suggest that estimating disease prevalence through 'passive case detection' (by reporting cases in which individuals have sought care and been diagnosed with a disease) may lead to underestimates of the disease burden in women.¹¹
- A study in India found that a higher proportion of leprosy cases among women and the elderly were detected through community-based surveys than through service-based detection methods.¹² Women may delay seeking medical help due to stigma attached to leprosy, but such delays may lead to irreversible nerve and limb damage thus leading to a permanent disability.¹³

III. Gender and delays in health seeking

- Gender may also influence delays in care seeking. A study in India found that the gap between noticing a symptom and perceiving it to be leprosy, and the gap between the suspicions of leprosy and seeking medical confirmation was considerably longer for women than it was for men (16 months versus 11 months and 15 months versus 10 months respectively).¹⁴ Delays in reporting symptoms can lead to longer periods of severity of illness or disability.

¹⁰ Hudelson, P. (1996). Gender differentials in tuberculosis: The role of socio-economic and cultural factors. *Tubercle and Lung Disease*, 77(5), 391-400.

¹¹ Ettlign, MB., Thimasam, K., Krachaiklin, S., & Bualombai, P. (1989). Malaria clinics in Mae Sot, Thailand: Factors affecting clinic attendance. *Southeast Asian Journal of Tropical Medicine and Public Health*, 20(3), 331-340.

¹² Vlassoff, C., Khot, S., Rao, S. (1996). Double jeopardy: Women and leprosy in India. *World Health Statistics Quarterly*, 49(2), 120-6

¹³ Smith, W.C (2015, March 2). *Triple jeopardy : Girls and women affected by leprosy on The Lancet Global Health Blog [Blog post]*. Retrieved from <http://globalhealth.thelancet.com/2015/03/02/triple-jeopardy-girls-and-women-affected-leprosy-are-discriminated-against-because-gender>

¹⁴ Kumar, R., Singhasivanon, P., Sherchand, J.B., Mahaisavariya, P., et. al. (2004). Gender difference in socio-epidemiological factors for leprosy in the most hyper-endemic district of Nepal. *Nepal Medical College Journal*, 6(2), 98-105. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/16295738>

Women also do not have the decision-making power and the economic resources to seek treatment for themselves and often even for their children. Studies in Ghana found that women consulted the male head of household about treating a child because of the expectation that he would pay for treatment. The absence of the head of household could, therefore, lead to fatal delays in bringing a child to health care services.¹⁵ Similarly, a study in Kenya found that a partner's absence was among the reasons given by mothers for delays in presenting sick children at services.¹⁶

- Other factors such as restrictions on women's mobility also place constraints on their autonomy in using services in some places. Hence if there is no elder from the family to accompany the woman to a health care centre, her condition may remain untreated.
- Gender disparity is also seen in the treatment of young boys and girls; son preference means that in some situations male children receive priority or better treatment. For example, studies have found that in some contexts male children receive more health care within and outside the household.¹⁷

IV. Gender issues in accessing existing health services

- Non-recognition of local gender norms can restrict women's access. For example, a study in Guatemala found that women preferred to be examined by local midwives rather than by health personnel because they were allowed to keep their clothes on.¹⁸ Another study in India reported that women; in particular young, single women; were too embarrassed to seek assistance from a male physician, and this was associated with a predominance of male attendees (in some clinics only 30% of patients were women).¹⁹

V. Infectious diseases can have different consequences for men and women

The social consequences of infectious disease are often more severe for women than for men.

¹⁵ Olhurst, R., Amekudzi, Y. P., Nyongator, F. K., Squire, S. B., & Theobald, S. (2008). "He will ask why the child gets sick so often": The gendered dynamics of intra-household bargaining over healthcare for children with fever in the Volta Region of Ghana. *Social Science & Medicine*, 66(5), 1106-1117.

¹⁶ Mwenesi, H., Harpham, T., Snow, R. W. (1995). Child malaria treatment practices among mothers in Kenya. *Social Science & Medicine*, 40(9), 1271-1277.

¹⁷ Mwenesi, H., Harpham, T., Snow, R. W. (1995). Child malaria treatment practices among mothers in Kenya. *Social Science & Medicine*, 40(9), 1271-1277.

¹⁸ Ojanuga, D. N., Gilbert, C. (1992). Women's access to health care in developing countries. *Social Science & Medicine*, 35(4), 613-617.

¹⁹ Kaur, V. (1997). General considerations: Tropical diseases and women. *Clinics in Dermatology*, 15(1), 171-78.

Stigma: The stigma associated with some diseases can lead to women being reluctant to consult formal health services. In several African countries haematuria caused by schistosomiasis is perceived to be associated with immoral sexual behaviour among women, but the same manifestation in men is considered to be a sign of virility.²⁰

The implications of stigmatisation also differ. Women with TB are stigmatized and more than 100,000 women are rejected by their families each year because of TB. The disease also has an adverse impact on children. Every year in India, 300,000 children have to leave schools on the account of TB contracted by their parents.²¹ There is evidence that women suffering from various diseases such as TB, leprosy, onchocerciasis and HIV are treated inferior to men in patriarchal societies, have lower chances of marriage and higher likelihood of divorce and may be subjected to gender-based violence. Studies that compared the effects on marriage for men and women found that men were more likely to divorce their spouses who became ill, and to remarry.²²

Marital Status: Attitudes and behaviour towards women differ depending on factors such as their marital status and position within the household. For example, a study of the effects of TB on lives of patients in Mumbai found that married men and single women perceived greater level of family support to initiate and complete treatment, but married women often tried to hide their symptoms for fear of blame or rejection. The stigma associated with a diagnosis of diseases such as TB and leprosy in many contexts can limit willingness and ability to seek formal health care or to complete treatment. For example, women in one study conducted in Bangladesh gave the lack of confidentiality with regard to TB diagnosis in the formal health services as a reason for preferring to visit traditional healers.²³ In the Mumbai study described above, many married women dropped out of the treatment process due to the pressure of keeping their illness a secret.²⁴

²⁰ Vlassoff, C., & Bonilla, E. (1994). Gender-related differences in the impact of tropical diseases on women: what do we know?. *Journal of Biosocial Science*, 26(1), 37-53.

²¹ National Commission on Macroeconomics and Health, Government of India (2005). *NCMH Background Papers: Burden of Disease*. New Delhi, India: Ministry of Health and Family Welfare. Retrieved from [http://www.who.int/macrohealth/action/NCMH_Burden%20of%20disease_\(29%20Sep%202005\).pdf](http://www.who.int/macrohealth/action/NCMH_Burden%20of%20disease_(29%20Sep%202005).pdf)

²² Vlassoff, C., Khot, S., Rao, S. (1996). Double jeopardy: women and leprosy in India. *World Health Statistics Quarterly*. Rapport trimestriel de statistiquessanitairesmondiales, 49(2), 120-126

²³ Giasuddin Ahsan, et al (2004). Gender difference in treatment seeking behaviors of tuberculosis cases in rural communities of Bangladesh. *Southeast Asian J Trop Med Public Health*, 35(1), 126-135. Retrieved from http://www.tn.mahidol.ac.th/seameo/2004_35_1/18-3178.pdf

²⁴ Nair, D.M., George, A., Chacko, K.T. (1997). Tuberculosis in Bombay: new insights from poor urban patients. *Health Policy Plan.*, 12(1), 77-85. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/10166105>

A study in Nigeria found that men's concern about lack of confidentiality in near-by facilities lead them to visit public health facilities further away from their residence for diagnosis and treatment. Initially men are able to bear the higher opportunity costs than women, enabling them to travel further for treatment, but eventually the high opportunity costs associated with this choice of treatment contribute to men not completing treatment.²⁵

Activity

The WHO matrix on gender analysis of infectious diseases should be discussed in the class, students while taking forward the discussion the points described below should be taken into consideration.²⁶

The WHO gender analysis tool assists medical students to understand-

- How gender inequality disadvantages the health of women and girls and also assists in uncovering health risks and problems among men and boys as a result of gender norms, roles and relations.
- Gender needs have been classified in to practical gender needs and strategic gender needs.
- Practical gender needs refer to necessities such as adequate living conditions, water provision, and health care amongst others.
- Strategic gender needs are those that address women's unequal status and position of men in society. Examples of strategic needs include engaging men in domestic responsibilities such as child care and ensuring that those women have control over their own bodies through laws and in practices such as informed consent for carrying out health interventions.

²⁵ Alubo, O., Patrobas, P., Varkevisser, C., & Lever, P. (2003). *Gender, leprosy and leprosy control: A case study in Plateau State*. Nigeria. Amsterdam: Royal Tropical Institute, KIT Publishers/NLR.

²⁶ World Health Organization, *Gender Analysis Matrix (GAM) from Gender mainstreaming for health managers: a practical approach Facilitators' guide*. (pp.85-87). Geneva, Switzerland: WHO. Retrieved from http://www.who.int/gender/mainstreaming/GMH_Participant_GenderAnalysisMatrix.pdf

In the gender analysis matrix / tool

- The first three rows cover the perspective of the user of health services or the demand side of health care (risk factors, vulnerability, access to health services, health seeking behaviours).
- The next two rows address the health sector response or the supply side of health care (treatment options, experiences in health care settings). Understanding both perspectives is critical to develop better health sector responses.
- The final row addresses issues that affect both the users and providers of health services (health and social outcomes and consequences). It is a known fact that illness affects more than just the ill person, and health services and responses must address this. But these issues often become invisible in health sector planning and activities. The matrix therefore helps in highlighting those issues.

Role of Doctor

- It is important that the doctor should explore gender-based vulnerabilities to communicable disease and address them effectively.
- The doctor should empower women with information about the illness, availability of drugs, importance of complying with treatment regimens and with ways to combat stigma.

Semester 5

4. Infectious diseases: HIV



Gender content added : Gender and HIV

Lecture name	: Infectious diseases: HIV
Subject	: Medicine main
Semester no	: 5
Duration	: 1 hour
Methodology	: Lecture
Resources	: 1. Centers for Disease Control and Prevention. (2004, November). <i>Women and infectious diseases</i> . Paper presented at International Conference on Women and Infectious Diseases (ICWID). Retrieved from https://wwwnc.cdc.gov/eid/article/10/11/04-0800_article
Handouts	: ---

Key Points

1. To understand the vulnerabilities of women infected with HIV and develop a gender sensitive response while treating them.

Learning Outcomes

Knowledge	Skill	Attitude
Student should understand combination of biological and social vulnerabilities of women contracting HIV	Student should demonstrate a non-judgmental approach in providing gender sensitive care for women with HIV, and should ensure confidentiality during diagnosis and care-giving	Student should acknowledge that unequal gender power relations can force women into unwanted and unsafe sexual encounters while treating women infected with HIV

Context: When teaching HIV

Note to Educator: Explain gender related issues around HIV and the importance of gender sensitivity while providing medical care for HIV patients.

Content

- Beyond the statistics of sex-based differences in infection rates, there are profound differences in the underlying causes and consequences of HIV / AIDS infections in males and females reflecting differences in biology, sexual behaviour, social attitudes and pressures, economic power and vulnerability. In many ways, the inequity that women and girls suffer as a result of HIV / AIDS serves as a barometer of their general status in society and the discrimination they encounter in all fields including health, education and employment.²⁷
- An important aspect of the effort to achieve gender equality is to recognise language used to characterise issues. All too often, use of gendered language demonstrates and predetermines an attitude that blames or shames a specific group or sex and this needs to be avoided:
 - a. Early examples reflect the perception of HIV / AIDS as a 'gay disease' which carries the perception that only those people in same sex relationships are affected by HIV/AIDS.
 - b. Recent advances show that women in heterosexual relationships are susceptible to HIV/AIDS. Yet the term 'mother-to-child transmission (MTCT)' is used to characterise the vertical transmission of HIV / AIDS. This focuses attention on the mother as the immediate source of the infection, and does not acknowledge that majority women have acquired their infection solely through a monogamous relationship with their partner. A more appropriate, gender-neutral term is 'parent-to-child transmission (PTCT).'²⁸

²⁷ Matlin, S., Spence, N. (2000). *Gender aspects of HIV /AIDS pandemic*. Presentation at Expert Group Meeting on The HIV/AIDS Pandemic and its Gender Implications Organized by Division for The Advancement of Women (DAW) World Health Organization (WHO) Joint United Nations Programme on HIV/AIDS (UNAIDS) at Windhoek, Namibia. Retrieved from <http://www.un.org/womenwatch/daw/csw/hivaids/matlinspence.html>

²⁸ Department of AIDS Control Basic Services Division (2013). *Updated guidelines for Prevention of Parent to Child Transmission (PPTCT) of HIV using Multi Drug Anti-retroviral Regimen in India*. New Delhi, India :Ministry of Health and Family Welfare. Retrieved from http://naco.gov.in/sites/default/files/National_Guidelines_for_PPTCT_0.pdf

- c. Frequent reference is made to the term 'risk behaviour'. The characterization of a particular 'risk group' tends to place the focus on a certain group bringing the question of who they are at risk from or who are at risk from them.²⁹ Such a terminology brands people who are in sex work and those in same sex relationships without recognising increasing risk of HIV infections in supposedly low risk groups
- d. Recent trends in HIV infection show that women in 'low risk groups' can also have an increasing chance of contracting HIV infections. They are also contracting it from their intimate partners. But much of the current international HIV/AIDS response assumes that women and men are equal, and are therefore equally empowered to protect themselves, make decisions about their sexual activity, and access health care. This lack of a gender perspective on the HIV / AIDS crisis has led to women assuming a greater share of infection and negative impacts from the disease.³⁰
- Another problem connected to this has to do with the social codes around condoms. In a gender-biased context, it might be sensitive or socially unacceptable for women to purchase or possess condoms. But even if women are able to do so, it is a man's prerogative to use them or not. It is assumed that women do not know how to use a condom, but if they do, they are suspected of being promiscuous. In many societies it is considered inappropriate for women to have any knowledge of condom use.^{31,32},

I. Biological factors associated with HIV transmission

- A number of epidemiological and biological issues make women more susceptible to HIV. It is acknowledged that it is easier for women to contract HIV from a man than it is for a man to contract it from a woman, both biologically and socially. But a majority of sexually transmitted infections do not show symptoms in women immediately. This makes it less likely for these infections to be diagnosed and treated early among women.

²⁹ UN Women (n.d.). *Feminization of HIV/AIDS*. Retrieved from <http://asiapacific.unwomen.org/en/countries/china/gender-and-hiv-aids>

³⁰ UN Women (n.d.). *Feminization of HIV/AIDS*. Retrieved from <http://asiapacific.unwomen.org/en/countries/china/gender-and-hiv-aids>

³¹ Keene, Thomas P. (2001). *Stopping the spread of AIDS among women in sub Saharan Africa, what Works and what does not: A comparative study of Uganda and Botswana*. (Master's thesis). Retrieved from <http://theses.lib.vt.edu/theses/available/etd-06272001-140504/>

³² Söderström, S. (2006). *Female inequality and the spreading of HIV/AIDS - A gender-based study* (Candidate-level thesis, Department of Life Sciences, Environment and development studies, Södertörn University College). Retrieved from <https://www.diva-portal.org/smash/get/diva2:16468/FULLTEXT01.pdf>

- Unprotected anal sex with a penis can also increase risk of infection as the lining of the rectum can easily tear.

II. Socio cultural factors and HIV infections

- Women and girls are relatively more vulnerable to HIV. Gender norms surrounding sexuality and masculinity, and peer pressure may prompt men to have multiple sexual partners and unprotected intercourse. On the other hand, women lack information, voice or empowerment to decide if, when, where and with whom to have or not have sex. They may also not be able to easily demand safe sex practices from their husbands, partners or clients. This is also evidenced from NFHS4. It shows that only 21% women in the age group of 15 - 45 years have comprehensive knowledge about HIV / AIDS. Limited information and knowledge added with lack of decision making in a sexual relationship add to women's vulnerability.³³
- Unprotected sex within marriage is common practice and considered a norm. This increases the vulnerability of married women to HIV as they do not have power to negotiate safe sex. Wives or regular partners of migrant men or men in such industries as trucking are unaware of or unable to address sexually risky behaviour of their partner. Many women cannot refuse sex with their husbands, increasing their risk of acquiring HIV.
- Violence against women can be a cause and consequence of HIV infection. Women experience increased vulnerability and violence at the time of diagnosis and throughout their lives thereafter. Thus, social vulnerability increases risk of contracting HIV, and their HIV status can precipitate more violence due to socio cultural norms surrounding sexuality of women. Women who experience physical violence and sexual coercion are afraid to negotiate condom use with their partners, as that implies lack of trust in their partners or may be construed as an admission of being 'promiscuous' themselves.
- Vulnerability of women to contract HIV is higher in settings of poverty and migration. In such settings women may be forced into unprotected sex to obtain food and money; or school fees and other basic needs.

³³ International Institute for Population Sciences (IIPS) and ICF (2017). *National Family Health Survey (NFHS-4), 2015-16: India*. Mumbai: IIPS.

III. Women from all age groups are vulnerable to HIV, hence the risk of HIV for women should be looked at from a life cycle approach

CHILDHOOD The immature genital tract and lack of power against adult sexual aggressors place children at risk of HIV infection from sexual abuse and child prostitution.

ADOLESCENCE The immature genital tract and lack of power against adult or peer sexual aggressors place adolescent females at risk of HIV infection from rape and coerced sex, economically-motivated sex, forced prostitution, and courtship or date rape.

ADULT REPRODUCTIVE YEARS Violence from the following contributes to the HIV risk of women in their adult reproductive years: intimate partner violence; marital rape; violent retaliation of husbands or partners at the suggestion of condom use; and forced prostitution.

OLDER AGE Women later in life may be particularly vulnerable to violence as a result of economic insecurity and (in some societies) diminished social status. Violence against older women can include rape and violence between intimates, both of which pose a risk of HIV transmission.

Violence and HIV/AIDS risk throughout a woman's life (Taken from: *Gender and AIDS Fact Sheets: HIV/AIDS and Gender Based Violence*, (UNAIDS.org)³⁴

IV. Stigma and discriminatory consequences³⁵

- Health care providers, family members and the community may stigmatise women living with HIV and treat them as being promiscuous because of assumptions about how they became infected.

³⁴ UNAIDS (n.d.). *Gender and AIDS Fact Sheets: HIV/AIDS and Gender Based Violence*. Retrieved from http://data.unaids.org/topics/gender/genderbasedviolence_en.pdf

³⁵ National Women's Law Centre (2014). *Factsheet: Health Care Refusals Harm Patients*. The Threat to LGBT People and Individuals Living with HIV/AIDS. Retrieved from https://nwlc.org/wp-content/uploads/2015/08/lgbt_refusals_factsheet_05-09-14.pdf

- Women living with HIV desiring children may be coerced into accepting sterilisation because providers and family members believe that they should not have children, citing concerns about chances of vertical transmission of HIV, care of HIV positive children, issues of children becoming orphans in case of death of both parents due to HIV / AIDS.
- Lesbian, gay, bisexual and transgender people face several discriminatory practices in the community as well as from health providers. Use of harsh language, blaming the person for her condition, refusal to touch her. People have also reported unnecessary genital and internal examinations when they approached health facility for a health complaint that did not warrant it.

V. Pregnancy, child birth, feeding practices in HIV positive women ³⁶

- In pregnant women, lower immunity during pregnancy further increases the risk of infection.
- Pregnancy related complications that require transfusion of blood may also expose women to the risk of infection.
- Finally, breastfeeding of newborn infants becomes a matter of concern for HIV+ mothers. While top feeds reduce the chances of the baby contracting HIV, it also induces gastrointestinal mucosal damage, thus, increasing chances of infections, especially in settings where clean drinking water is not available.
- Many HIV+ mothers are also unable to afford top feeds and are therefore compelled to breastfeed their babies.
- It is important to counsel HIV+ mothers who cannot afford top feeds to try the non-weaning approach of feeding their children.
- A non-weaning approach would involve only breastfeeding for the first six months and then an immediate switch to top feeding without going through a weaning period.

³⁶ World Health Organization (2010). Breast is always best, even for HIV-positive Mothers. *Bulletin of the World Health Organization*, 88(1), 1-80. Retrieved from <http://www.who.int/bulletin/volumes/88/1/10-030110/en/>

What can be done?

- There is a scope for doctors to intervene to persuade women to be screened for HIV at the time of their voluntary ANC visits. If the woman tests positive, she should be given psychosocial support and a plan needs to be prepared in consultation with the woman about her safety and health. She also needs counselling support in terms of what to do with her pregnancy, in case she decides to terminate the pregnancy or if she decides to go ahead with it.
- Upon diagnosis of a positive status, the woman's husband should also be screened for HIV and Hepatitis B and provided counselling. The disclosure of woman's positive status to the husband needs to be done in consultation with the woman, with her due consent as and when she is comfortable. The disclosure should not be done in her absence as it leads to betraying her confidentiality.
- Additionally, women may face difficulty while continuing with the treatment as in situations of limited resource women might give away their medication to their HIV+ husbands. Doctors should be mindful of this and assess factors that prevent women from continuing treatment.
- There should be an ongoing access to Anti Retro Viral Treatment. Care should be taken (and women should be counselled) to prevent opportunistic infections.

VI. The insertion of a gender-based approach into the multi-sectoral response to HIV/AIDS requires a systematic and comprehensive effort, involving

- Building capacity for training in gender-based analysis for all key professionals and workers, requiring developing and producing locally relevant training materials, training of trainers and allocation of time and resources for training.
- System-wide processes in each sector that will ensure that programme planning and implementation is rooted in a gender-based approach, integrating monitoring and evaluation.
- Enhancing capacities for the collection, analysis and use of sex-disaggregated data.

Role of Doctor

- A sensitive approach to patients can help in early screening and appropriate treatment of women with HIV.
- Doctors should be considerate and sensitive while interacting with the patient and counselling family members.
- Counselling about the condition and addressing misconceptions and prejudices around HIV should be offered not only to the woman, but also her family/support systems.

Activity: Any of the two activities can be conducted by the educator

1. The gender analysis frame work has been detailed in the chapter on "Infectious diseases". The medical educator can use the example of HIV / AIDS as a communicable disease and carry out the exercise in any of the sessions.
2. Currently, the Government of India has released several advertisements to counter HIV / AIDS. Along similar lines, students may be asked to prepare gender sensitive advertisements for HIV / AIDS. This may be a group activity.

Semester 5

5. Infectious diseases: malaria



Gender content added : Gender and malaria

Lecture name	: Infectious diseases: malaria
Subject	: Medicine main
Semester no	: 5
Duration	: 1 hour
Methodology	: Lecture
Resources	: 1. Kvinnoforum. (2006). <i>A Guide to Gender and Malaria Resources</i> . Stockholm: Kvinnoforum. Retrieved from https://www.k4health.org/sites/default/files/gm_guide-en%5B1%5D.pdf
Handouts	: ---

Key Points

1. The gendered division of labour, where women mostly work as caregivers to the sick in the family, may expose them to infection. These factors should be taken into consideration while treating women with malaria.
2. Management of malaria in pregnant women must include informing them about the effects of medication on their health and on the foetus.

Learning Outcomes

Knowledge	Skill	Attitude
Student should be aware that gender roles assigned to men and women in the society make them susceptible to malaria	Student should explore gender roles played by women in contracting malaria and develop treatment and prevention plan for malaria	Student should recognize role of gender in exposure to malaria

Knowledge	Skill	Attitude
Student should be aware that there are possible detrimental effects on foetus in malaria during pregnancy if it is not treated	Student should demonstrate skill in integrating gender in screening and counseling of pregnant women for malaria	Student should be sensitised to importance of counseling pregnant women for prevention of malaria

Context: When teaching malaria

Note to Educator: Explain the role of gender and its implication on women's susceptibility to Malaria.

Content

I. Gender roles and malaria³⁷

Gender Roles: Women who wake up before dawn to perform household chores are more likely to have greater contact with mosquitoes. Clothes traditionally worn by women might also expose their bodies to more mosquito bites. Women's traditional household roles, such as cooking the evening meal outdoors may also put them at greater risk of malaria. Men may also be susceptible to malaria if they are working in mines, forests or fields in the peak biting times. Sleeping arrangements of men in the open may make them susceptible to malaria. Thus, understanding gendered pattern of behaviours can enable the development of health interventions for prevention and treatment of malaria.

Access to healthcare is often hampered due to time constraints that give women little time free from their household and caretaking responsibilities. Additionally, women and men tend to seek different services when they experience malaria symptoms, driven by gender-specific economic necessity.

Because poor women cannot afford treatment, they are more likely than men to rely on dubious traditional remedies. Even when the correct course of treatment is prescribed, women may not be able to follow it because they cannot afford it or are too busy with care-giving responsibilities to obtain medicines. This can lead to lower

³⁷ World Health Organization (2007). *Gender, Health and Malaria*. Retrieved from <http://www.who.int/gender-equity-rights/knowledge/gender-health-malaria.pdf?ua=1>

dosing, sharing of pills and / or not completing the course of treatment. Once malaria affects a family, studies have also shown that, the disease burden is greater for adult males, the economic effect is greater for female family members, who are forced to provide food and medicines, even as their care-giving responsibilities expand.

II. Malaria in pregnancy

- Pregnant women are even more vulnerable than other adults to malaria, which can cause severe anaemia and death. This vulnerability is heightened when women face economic hardships. Young women in their first pregnancy are especially vulnerable to malaria of the placenta, because they have not yet developed the immunity that comes with multiple pregnancies. Richer, educated, urban women are more likely to receive Intermittent Preventative Treatment in Pregnancy (IPTP) than their poorer, uneducated, rural counterparts. Pregnant women who are co-infected with HIV and malaria are also at greater risk of severe anaemia and death, and are more likely to transmit HIV to their babies. Their babies being nearly twice as likely to contract malaria than babies born to women who are not living with HIV.³⁸
- Studies have shown that the burden of malaria in pregnancy is very high. A study carried out in erstwhile Madhya Pradesh found that an estimated 2,20,000 pregnant women contract malaria infection each year. Malaria in pregnancy caused abortions (34.5%); stillbirths (9%), and maternal deaths (0.45%).³⁹
- A study carried out in Jharkhand among pregnant women, showed that only half of the pregnant women (51.2%) diagnosed with malaria were symptomatic. This means that a large number of pregnant women infected with the disease, but not showing symptoms, may not receive any treatment or care.⁴⁰
- Another study carried out in Gomia in Jharkhand reported that when women and men in poor households became sick with malaria because they did not get adequate nourishment. All they survived on was rice starch liquid called '*maar*'. Women including those who were pregnant were harassed by their husbands and in-laws for the expenditure the household had to incur for malaria treatment and also because

³⁸ World Health Organization (2003). *Lives at risk: malaria in pregnancy*. Retrieved from <http://www.who.int/features/2003/04b/en/>

³⁹ Diamond-Smith, N., Singh, N., Gupta, R. D., Dash, A., Thimasarn, K., Campbell, O. M., & Chandramohan, D. (2009). Estimating the burden of malaria in pregnancy: a case study from rural Madhya Pradesh, India. *Malaria journal*, 8(1), 24. doi: 10.1186/1475-2875-8-24.

⁴⁰ Hamer, D. H., Singh, M. P., Wylie, B. J., Yeboah-Antwi, K., Tuchman, J., Desai, M., ..& .Awasthy, K. (2009). Burden of malaria in pregnancy in Jharkhand State, India. *Malaria journal*, 8(1), 210.

the women were not able to do household work. About half the pregnant women went to compounders for treatment, because they allowed payment to be made in installments. The husband and in-laws often regarded the woman's treatment as her parent's responsibility. The treatment women were able to get depended on the amount that their parents were able to spend. The women did not get much time for rest and recovery and had to start doing household work soon after fever ended.⁴¹

III. Gaps in the health care response to malaria⁴²

- In 2010, government of India issued guidelines on use of insecticide treated bed nets to prevent malaria in pregnant women. But the public health programmes did not make provisions for pregnant women to get them.
- Anaemia, as per NFHS 4, is still as high as 53% in non-pregnant married women (15 - 49 years) and 50% in pregnant married women. About 59% of children between 6 months to 59 months have anaemia. Malaria in the background of endemic anaemia could be a precipitating factor for complications in pregnancy.
- WHO policy recommends intermittent preventive treatment (IPT), insecticide treated nets and case management of malaria. The drugs policy in India has not been aligned to these treatment protocols.
- Government of India guidelines make a mention of insecticide treated nets for preventing malaria in pregnant women but these nets were not found to be widely available through the public health system for women.
- There is a lack of inter sectoral collaboration between the malaria prevention program and the antenatal and safe mother and child care programs in the health departments in India.

IV. What can be done?

- Malaria screening should be made mandatory for all pregnant women, especially those who live in endemic areas.

⁴¹ Sama Women's Resource Centre. (2005). *The Interrelationship between gender and malaria among the rural poor in Jharkhand, Trivandrum*. New Delhi, India: Sama Women's Resource Centre.

⁴² Ravindran, T.K. Sundari. (n.d.) *Malaria in Pregnancy in India*. Retrieved from <http://www.commonhealth.in/factsheet-malaria-and%20sex-selective-abortion/5.%20factsheet%20MALARIA%20in%20pregnancy%20in%20india.pdf>

- Nutritional needs of pregnant women should be taken care of, in order to prevent anaemia and complications arising due to malaria, and they should be advised to include iron rich food in their regular diet. Doctors may advise women to consume local food rich in iron like jaggery, groundnuts, and green leafy vegetables along with iron supplements.

Role of Doctor

- A doctor should be aware of medical complications that can occur as a result of malaria in pregnancy. Antenatal services should include an awareness package on prevention of malaria. Development of a gender lens in treating doctors will enable them to respond effectively to pregnant women contracting malaria.

Semester 6

6. Respiratory System



Gender content added : Gender and respiratory system

Lecture name	: Respiratory System
Subject	: Medicine main
Semester no	: 6
Duration	: 1 hour
Methodology	: Lecture
Resources	: 1. Pinkerton, K. E., Harbaugh, M., Han, M. K., Le Saux, C. J., Van Winkle, L. S., et. al. (2015). Women and lung diseases- sex difference and Global health disparities. <i>Am J Respir Crit Care Med</i> , 192(1), 11-16. doi: https://doi.org/10.1164/rccm.201409-1740PP
Handouts	: ---

Key Points

1. History of smoking should be taken irrespective of gender of the patient.
2. Passive smoking, type of cooking fuel used (like wood or charcoal) and poorly ventilated kitchens are risk factors for women in diseases related to respiratory system.
3. Women should be asked about their contraceptive history such as use of OC pills or injectables as sex hormones have an effect on respiratory diseases like asthma or Chronic Obstructive Pulmonary Disease (COPD).

Learning Outcomes

Knowledge	Skill	Attitude
Student should explain the gender difference in manifestation and management of various pulmonary disorders	Student should integrate gender component in diagnosis, clinical manifestation and management of pulmonary disorders	Student should be aware of gender bias in overlooking health issues in women with respiratory illness

Context: When teaching applied anatomy and physiology.

Note to Educator: Explain the gender difference in epidemiology of various pulmonary diseases so that students will integrate gender component while treating patients with pulmonary disorders.

Content:

I. Biological factors

- Gender differences are observed in various pulmonary diseases like asthma, lung carcinomas, pulmonary hypertension and other pulmonary manifestation of auto immune diseases. However, very few studies have explored these differences.
- Female sex hormones are said to play a major role in gender difference in the manifestation of asthma. This can be a reason why prevalence of asthma differs among boys and girls during puberty, after pregnancy and menopause. Several sex hormones have been implicated to play a role in perimenstrual worsening of asthma in which the roles of Oestrogen and Progesterone (or both) seem to be important.⁴³
- Menopause can coincide with clinical expression of asthma. Peak in prevalence of asthma during menopause is observed, it is frequently associated with an absence of allergy and with higher severity and frequent exacerbations.⁴⁴

⁴³ Van den Berge, M., Heijink, H. I., Van Oosterhout, A. J. M., & Postma, D. S. (2009). The role of female sex hormones in the development and severity of allergic and non allergic asthma. *Clinical & Experimental Allergy*, 39(10), 1477-1481.

⁴⁴ Royal College of Obstetrician and Gynaecologist. (2011). *Venous Thromboembolism and Hormone Replacement Therapy*. Greentop Guidelines no.19. London: Royal College of Obstetrician and Gynaecologist.

- All forms of hormonal therapy that women currently use have been associated with an increased risk of venous thromboembolism (VTE). The risk is high in subgroups of women with thrombophilias, previous history of VTE, obesity, and those using tobacco.⁴⁵
- These risks must be kept in mind and balanced with the potential benefits while prescribing any medications.
- Chronic obstructive pulmonary disease (COPD), one of the most common respiratory diseases has similar manifestation among men and women however, subtle differences are based on biology, genetic factors and gender related behaviours observed among both genders⁴⁶.
- Women develop more severe COPD at younger ages than men and with lower levels of cigarette exposure. First, there may be a genetic predisposition for smoking-related lung damage in certain families that is sex-specific. Women may have increased dose-dependent tobacco susceptibility. Due to biological make up women have smaller lungs and airways than men leading to air flow obstruction; therefore, the same amount of tobacco smoke results in greater exposure. Further, exposure to second hand smoke and the male/female differences in cigarette-brand preference and inhalational techniques may also be a factor. However, the diagnosis of COPD in women gets delayed. Despite women coming with symptoms they get misdiagnosed with asthma.⁴⁷

II. Tobacco consumption among women

- Smoking is usually not considered to be prevalent among women or socially acceptable among women and hence health care providers may miss screening women who come in with respiratory problems related to smoking. Women are also exposed to second hand smoking or passive smoking, causing health hazards such adverse effects are also pronounced among pregnant women and the pregnancy outcome.

⁴⁵ Royal College of Obstetrician and Gynaecologist. (2011). *Venous Thromboembolism and Hormone Replacement Therapy*. Greentop Guidelines no.19. London: Royal College of Obstetrician and Gynaecologist.

⁴⁶ Athanazio, R. (2012). Airway disease: similarities and differences between asthma, COPD and bronchiectasis. *Clinics*, 67(11), 1335-1343. Retrieved from [http://doi.org/10.6061/clinics/2012\(11\)19](http://doi.org/10.6061/clinics/2012(11)19)

⁴⁷ Athanazio, R. (2012). Airway disease: similarities and differences between asthma, COPD and bronchiectasis. *Clinics*, 67(11), 1335-1343. Retrieved from [http://doi.org/10.6061/clinics/2012\(11\)19](http://doi.org/10.6061/clinics/2012(11)19)

- An analysis of disaggregated data from nationally representative surveys - Global Adult Tobacco Survey 2010, National Family Health Survey, Round III (2004-2005), National Family Health Survey, Round II (1998-1999), National Sample Survey, 52nd Round (1995-1996) and National Sample Survey, 50th Round (1993-1994)- was conducted to observe trends in female smoking. Findings showed that smoking among women has doubled from 1.4% to 2.9% during the period 1996-2010.⁴⁸
- In a cross-sectional study carried out in the district hospital of Jhansi, Uttar Pradesh to assess effect of passive smoking among 300 pregnant women, it was found that 26% were exposed to second hand smoke. It was found that there was also a higher incidence of pre-term birth (32%) and small for gestational age babies (27%) as compared to those who were unexposed. The birth weight of babies born to women who were exposed was 282 grams less as compared to those born to non-exposed mothers.⁴⁹

III. Gender roles and cultural factors

Depending on the context of women, cooking practices like cooking on a *chulha* which creates smoke should be considered as risk factors for women and hence it should be taken into consideration while treating women, given that the responsibility for cooking falls primarily on women. Encouraging the use of safe and smokeless cooking stoves with good aeration should be considered for women's special need and should be a rights issue.

Globally, 41% of households and over 2.8 billion people, rely on solid fuels (coal and biomass) for cooking and heating. In developing countries, solid fuels are typically burnt in open fires and inefficient traditional cook stoves, often in poorly ventilated cooking spaces. Women, who are customarily responsible for cooking, and their young children, are most exposed to the resulting high levels of air pollutants released including carbon monoxide (CO) and particulate matter (PM).⁵⁰

⁴⁸ Goel, S., Tripathy, J. P., Singh, R. J., & Lal, P. (2014). Smoking trends among women in India: Analysis of nationally representative surveys (1993-2009). *South Asian Journal of Cancer*, 3(4), 200-202. Retrieved from <http://doi.org/10.4103/2278-330X.142958>

⁴⁹ Gupta, S., Malhotra, A. K., Verma, S. K., Dekka, M., Yadav, R., & Singh, S. (2015). Effects of passive smoking (environmental tobacco smoke) on pregnancy outcome at district hospital, Jhansi, Uttar Pradesh. *International Journal of Medical Science and Public Health*, 4(8), 1090-1094. doi:10.5455/ijmsph.2015.28022015229

⁵⁰ Amegah, A. K., Jaakkola, J. JK. (2016). Policy and practice: Household air pollution and the sustainable development goals. *Bulletin of the World Health Organisation*, 94, 215-221. Retrieved from <http://dx.doi.org/10.2471/BLT.15.155812>

In 2010, household air pollution was estimated to be responsible for 3.5 million premature deaths worldwide. Household air pollution also contributes to outdoor air pollution, causing an additional 370,000 deaths and 9.9 million disability-adjusted life years globally in 2010. There is strong evidence linking household air pollution exposure with cardiovascular diseases, acute lower respiratory infections, chronic obstructive pulmonary disease and chronic bronchitis, lung cancer, cataract, low birth weight and stillbirth.⁵¹

A study carried out in rural Nagpur, India among 760 non-smoking, non-pregnant women aged 15 and above, exposed to domestic smoke from an early age, working in poorly ventilated kitchens; found that symptoms like eye irritation, headache and diminution of vision were found to be significantly higher in biomass users. Abnormal pulmonary function, chronic bronchitis and cataract were also significantly high.⁵²

IV. Recommendations to deal with indoor air pollution⁵³

Women spent significant amount of time in collection of domestic fuel, and cooking for the family. However, decisions pertaining to collection and usage of cook ware are not decided by them. This is the reason for limited success of alternatives such as improved cooking stoves and use of different forms of fuel.

Improved cook stoves: Interventions to reduce household air pollution have primarily focused on the promotion and dissemination of improved cook stoves. In India, National Programme for Improved Chulhas (traditional stoves) distributed more than 30 million improved stoves between 1985 and 2002. This programme was also widely regarded as a failure due to poor uptake and high air pollution emission levels. The reasons for it lie in the cultural context. The stoves were not compatible with cooking pots and modes of preparation of traditional food items.

Use of LPG: LPG is clean, burns efficiently, is easy to use, reduces cooking time and can significantly reduce emissions. But LPG may be available in a limited form and

⁵¹ Amegah, A. K., Jaakkola, J. JK. (2016). Policy and practice: Household air pollution and the sustainable development goals. *Bulletin of the World Health Organisation* , 94, 215-221. Retrieved from <http://dx.doi.org/10.2471/BLT.15.155812>

⁵² Sukhsohale, N. D., Narlawar, U. W., & Phatak, M. S. (2013). Indoor air pollution from biomass combustion and its adverse health effects in central India: an exposure-response study. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 38(3), 162. Retrieved from <http://doi.org/10.4103/0970-0218.116353>

⁵³ World Health Organization (2014). *WHO guidelines for indoor air quality: household fuel combustion*. Geneva, Switzerland : WHO. Retrieved from http://www.who.int/indoorair/guidelines/hhfc/HHFC_guidelines.pdf

may be expensive and hence it does not work out to be a feasible option of economically underprivileged houses

Renewable energy resource: Solar, wind, hydro and geothermal power can serve as safe, affordable sources of household energy while mitigating global climate change. Biogas, produced from the breakdown of biodegradable materials under anaerobic conditions, also has the potential to reduce dependence on solid fuels in developing countries. But developing countries face numerous waste management problems. Hence, though India has a household scale program for rural biogas, its uptake has been limited.

Housing Improvements: Housing improvements and modifications also offer potential for significantly reducing household air pollution exposure. Enlarging kitchen windows, increasing roof spaces, raising cooking surfaces from floor are some of the alternatives to deal with indoor smoke in developing countries, this approach has failed and the key to the success of this strategy is enforcement of building standards. Unfortunately, in low-income countries, enforcing building standards is also a major challenge, as construction is often informal without plans and permits. Building inspectorate departments need to be better resourced, to enable them carry out their functions efficiently.

Effective promotion and dissemination of these methods needs to urgently take place. As women are primarily responsible for collection of solid fuel and also carrying out cooking for the household. Behaviour change to switch to other cooking fuel as well as for improved cooking stoves can only happen with male involvement in the families and communities.

Role of Doctor

- Doctor should actively seek history of smoking with women patients in order to reach a timely diagnosis of COPD.
- Doctors have an important role to play in educating men and women about the use of non-polluting fuels as well as cooking methods to prevent them from suffering from respiratory conditions.

Semester 6

7. Tuberculosis



Gender content added : Gender and tuberculosis

Lecture name	: Tuberculosis
Subject	: Medicine main
Semester no	: 6
Duration	: 1 hour
Methodology	: Lecture, case study
Resources	: 1. UNDP. (2015). <i>Discussion paper: Gender and Tuberculosis</i> . Retrieved from http://www.undp.org/content/dam/undp/library/HIV-AIDS/Gender%20HIV%20and%20Health/Gender%20and%20TB%20UNDP%20Discussion%20Paper%20(1).pdf
Handouts	: ---

Key Points

1. Gender inequality affects access to resources and decision-making capacity and has health consequences for women affecting both early diagnosis and full treatment.
2. Women are likely to face violence stemming from stigma associated with TB.
3. Infertility in women due to genital TB may lead to further discrimination.
4. Tuberculosis (TB) kills more women globally than any other single infectious disease, and more women die annually of TB than of all causes of maternal mortality combined. Women who are co-infected with TB and HIV are significantly more likely to die of TB than co-infected men.
5. Drug resistant TB in women is likely to precipitate more suffering and early death, especially if the woman is HIV+.

Learning Outcomes

Knowledge	Skill	Attitude
Student should know various gendered factors causing delay in seeking care for TB and the consequences of being diagnosed with TB	Student should develop competence in addressing violence faced by women suffering from TB so that women do not fall out of the treatment regime	Student should be sensitised to violence against women upon being diagnosed with tuberculosis

Context: When teaching host related factors.

Content

- I. TB is reported as the cause of 6-10% of all maternal mortality in settings with low HIV prevalence (15% of maternal mortality and up to 34% of indirect maternal mortality in settings with high HIV prevalence). Pregnant women living with TB are twice as likely to have premature babies, and their babies are six times more likely to die within a few weeks of birth. Women living with HIV are 10 times more likely to develop TB during pregnancy than HIV-negative women, and pregnant women living with HIV and TB are more than twice as likely to die as HIV-negative pregnant women with TB. Undiagnosed active TB can range up to 11% among women living with HIV. TB can also be transmitted from mother to child. For example, compared to HIV-positive women who do not have TB, women living with HIV and TB are 2.5 times more likely to transmit HIV to their babies, and their babies are three times more likely to die.

In India, it has been found that more men report chest symptoms than do women and the Revised National Tuberculosis Programme (RNTCP) advocating Directly Observed Treatment-Short course (DOTS) detects nearly three times more male than female TB patients. Higher tuberculosis notification rates in men may partly reflect epidemiological differences, exposure to risk of infection and progression from infection to disease.

However, these may not be the only influencing factors. In general, women in developing countries appear to confront more barriers than men in accessing health care services due to a variety of socio-cultural factors.

- India has the highest burden of tuberculosis. The World Health Organization (WHO) statistics for 2014 gives an estimated incidence figure of 2.2 million cases of TB for India out of a global incidence of 9 million.
- Men and women are both at risk of tuberculosis. However, sex, age and existing health condition seem to make a difference.^{54,55},
- Women in their early reproductive years have higher rates of progression from infection to disease and higher case fatality rates than do men of the same age.^{56,57}
- Untreated tuberculosis during pregnancy poses a threat to the woman and the foetus. Pulmonary tuberculosis in mothers increase the risks of miscarriage, eclampsia, intrapartum complications and poor pregnancy outcomes such as risk of prematurity, low birth weight and perinatal deaths. The mother may also have increased risk of obstetric morbidity HIV-TB co-infection in pregnant women is responsible for maternal mortality and morbidity and is also a threat to the infant.^{58,59}
- Genitourinary tuberculosis is more likely to cause infertility in a woman than in a man.⁶⁰ Extra-pulmonary TB has higher prevalence among women than men, particularly genital TB, which is difficult to diagnose and has been identified as an important cause of infertility in settings with high TB incidence.

⁵⁴ World Health Organization (2009). *Women and health: today's evidence tomorrow's agenda*. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/gender/women_health_report/en/index.html

⁵⁵ Weiss, M. G., Auer, C., Somma, D. B., Abouihia, A., Kemp, J., Jawahar, M., ...& Arias, N. L. (2006). *Gender and tuberculosis: cross-site analysis and implications of a multi-country study in Bangladesh, India, Malawi, and Colombia. Social, Economic and Behavioural Research. Report Series No.3*. Geneva: WHO executed UNICEF/UNDP/World Bank/World Health Organization Special Programme for Research and Training in Tropical Diseases. Retrieved from <http://www.who.int/tdr/publications/tdr-research-publications/gender-tb-multicountry-study/en/>

⁵⁶ Crampin, A. C., Glynn, J. R., Floyd, S., Malema, S. S., Mwinuka, V. K., Ngwira, B. M. M., ... & Fine, P. E. M. (2004). Tuberculosis and gender: exploring the patterns in a case control study in Malawi. *The International Journal of Tuberculosis and Lung Disease*, 8(2), 194-203.

⁵⁷ Jimenez-Corona, M. E., Garcia-Garcia, L., DeRiemer, K., Ferreyra-Reyes, L., Bobadilla-del-Valle, M., Cano-Arellano, B., ... & Ponce-de-León, A. (2006). Gender differentials of pulmonary tuberculosis transmission and reactivation in an endemic area. *Thorax*, 61(4), 348-353. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2104608/?tool=pubmed>

⁵⁸ World Health Organization Gender and Women's Health. (2002). *Gender and tuberculosis*. Geneva: World Health Organization. Retrieved from http://www.who.int/gender/documents/en/TB_factsheet.pdf

⁵⁹ Somma D. et. al. (2004). Annex 4. handout - Sample Gender Analysis Matrix: Tuberculosis. In *Gender mainstreaming for health managers: a practical approach*. Geneva, Switzerland: World Health Organization.

⁶⁰ World Health Organization (2002). *Factsheet: Gender and tuberculosis*. Retrieved from http://www.who.int/tb/challenges/hiv/tb_women_factsheet.pdf?ua=1

- Social and cultural factors: In some communities, a woman who is found to have TB may be divorced by her husband. If unmarried, she may have difficulty in finding a groom. Women infected with TB may be ostracized and abandoned by spouse if married thereby leading to further economic deprivation and social isolation.
- Gender roles: Gender norms and roles may increase women's and girl's exposure to indoor air pollution, a risk factor for TB, due to often unsafe and unclean fires in closed kitchen areas.^{61,62} Women's and girls' roles as household caregivers may increase their risk of infection when caring for a family member with TB infection.
- Lack of access to proper treatment: Some studies have found that women have less access to TB treatment and prevention services than do men and are unlikely to undergo sputum smear examination. For example, women in some contexts have difficulty in accessing TB services because male family members are unwilling to pay for these services, as women's health may not be considered as important as of male family members, or because TB in women is more stigmatised than in men.
- Insensitive health care: Gender-insensitive health care infrastructure also has an impact on women's access to services. While women are more likely to delay seeking care, when they do access TB services, they generally wait longer than men for diagnosis and treatment. Women who seek health services for TB, have also complained about lack of privacy in health centres when receiving DOTS. Women with children may not be able to attend TB services regularly due to lack of child-care facilities. Inadequate instructions by doctors about sputum test lead women to give saliva as mucus sample which lead to false negative results.

II. Health seeking behaviour

- Men in occupations related to mining and blasting face higher exposure to particulates, additionally they may also migrate for jobs which may lead to discontinuation of treatment. On the other hand, women may have less access to TB related treatment. One of the reasons could be that women's health is not considered as important as that of the men; probably because men are involved in generating income for the house, where as women's work is unrecognised. User fees for treatment can therefore affect men and women in different ways, especially in low income households,

⁶¹ Squire, S. B. (2009). *A gender analysis of a clinical investigation into the causes of tuberculosis*. (pp. 60-61). *Guidelines for the analysis of gender and health*. Liverpool: Liverpool School of Tropical Medicine.

⁶² World Health Organization (2007). *Tuberculosis and gender*. Copenhagen: WHO Regional Office for Europe Retrieved from http://www.euro.who.int/___data/assets/pdf_file/0020/69014/fs05E_TBgender.pdf

preference may be given to treating the bread winner who is usually the male member of the family.

- India accounts for 27% of worlds TB notifications and India, besides Nigera accounted for 1/3rd of global TB deaths in HIV negative people and is one of the three top countries in the world which have the highest cases of TB.⁶³
- A cross sectional study using mix methods approach carried out in Chandigarh to understand TB related health seeking behaviours in men and women showed that access to resources and right to making treatment related decisions rested with the family in case of women. Though women recognise their health problems, they sought home remedies and over the counter drugs without prescriptions. Men did not seek treatment till their symptoms worsened but when they did they were seen to access medical help from private medical practioners. Findings of these studies bring forth the differences in health seeking amongst men and women owing to their access to resources.⁶⁴
- There is also emerging evidence of gender bias in diagnosis and treatment processes. For example, a study conducted in Vietnam found that women did not receive TB diagnosis as quickly as do men even after they reached health services. The mean delay of about two weeks was found to be clinically significant in terms of morbidity. Reasons for this difference were not identified, but recent work from Thailand has suggested that women may not produce as much sputum for testing due to their reluctance to contravene gender norms of delicacy by coughing loudly.⁶⁵
- Gender norms that limit unaccompanied hospital visits or frown upon examination by male physicians may restrict women's access to and use of health services both for diagnosis and uninterrupted treatment. Gender norms, roles and relations can often limit women's movement and access to key household resources for seeking health services.

⁶³ World Health Organization (2015). *Global tuberculosis report*. Geneva, Switzerland: WHO. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/191102/9789241565059_eng.pdf;jsessionid=3ECF7B7CF990465642DEF97E0F9B1872?sequence=1

⁶⁴ Janmejaya, S. (2016). *Health Seeking Behaviour among Tuberculosis Patients in India: A Systematic Review*. *J Clin Diagn Res.*, 10(10), LE01-LE06.

⁶⁵ Ngamvithayapong, J., Yanai, H., Winkvist, A. And Diwan, V. (2001). Health seeking behaviour and diagnosis for pulmonary tuberculosis in an HIV epidemic mountainous area of Thailand. *The International Journal of Tuberculosis and Lung Disease*, 5(11): 1013-1020.

- Lack of education (formal or informal) as well as barriers to health education campaigns may limit women's ability to recognise non-classical TB symptoms (breathlessness and chest pain, for example).

Role of Doctor

- Doctor needs to make proactive efforts for screening patients coming to them for TB. These efforts need to be integrated in different departments such as the ones dealing with STIs, ANC clinics and so on. Thus, early detection of TB can be achieved.
- Families need to be engaged to discuss the importance of uninterrupted treatment, rest, nutritious food and caring attitude towards the woman.
- Doctors need to develop a patient centered approach that takes into account challenges faced by both men and women in accessing and continuing treatment for TB. This necessitates a coordinated service delivery from the doctor to the front-line workers to provide support and medication at locations found comfortable by patients.

Case Study:

Meera, a resident of Delhi, suffering from high fever and cough did not get herself checked for nearly four months because her husband would not give her money. "I had high fever and was coughing violently for about four months", she said, but her husband refused to give her money to go to the hospital. "He would instead complain that I did not do my work at home. Finally, when she reached the hospital, she was diagnosed with multi-drug resistant tuberculosis, where the patient is resistant to the first line of TB drugs and the treatment lasts two years. Meera now receives treatment from a clinic run by non - profit Operation Asha that works with TB patients in the area.

Questions for Discussion

- Q. What are all the gender components you can recognise in the above case?
- A - The educator can discuss aspects such as lack of resources that prevented Meera from reaching the hospital in time. The nature of information Meera had may have been limited and therefore she did not recognise TB related symptoms in time. Once

diagnosed with MDR TB, she may face repercussions after she discloses it to her partner and family.

Q. In what ways can a doctor alleviate the suffering and stigma that a woman with TB faces?

A - The educator can discuss aspects such as how will Meera disclose her illness, the nature of support she may require after disclosure. The doctor can discuss steps to be taken so that Meera does not face ostracization and desertion from husband, family and community. Doctor can explore support system if any and seek consent to involve front line worker to be in touch with Meera so that she receives care throughout her treatment.

Activity 2

Students should be divided in to groups and asked to list down factors such as; risk and vulnerability factors, access to and use of health services, health seeking behaviours, treatment options, experiences in health care settings when men and women are diagnosed with TB. A discussion on it should be facilitated using WHO gender analysis matrix tool on tuberculosis .

Semester 7

8. Haematology



Gender content added : Gender and haematology

Lecture name	: Haematology
Subject	: Medicine main
Semester no	: 7
Duration	: 1 hour
Methodology	: Lecture
Resources	: 1. Kaur, Kawaljeet. (2014). Anaemia 'a silent killer' among women in India: Present scenario. <i>European Journal of Zoological Research</i> , 3 (1), 32-36. Retrieved from https://pdfs.semanticscholar.org/f105/35d3b81570f288d904f5d264aafe579ed59b.pdf
Handouts	: ---

Key Points

1. Women's position in the society affects their access to food resources and healthcare.
2. Bias against girl children contributes to the prevalence of anaemia in adolescents.
3. A pregnant woman resistant to iron supplements should be tested for Thalassemia or sickle cell disease.
4. Availability of blood transfusion during childbirth is essential for women with severe anaemia.

Learning Outcomes

Knowledge	Skill	Attitude
Student should recognize that anaemia in women and girls is a public health issue	Student should demonstrate skill to assess anaemia through a life cycle approach	Student should realize limited access to nutrition and health care are factors that determine if a woman / girl can get anaemia treated
Student should be aware that women subjected to multiple pregnancies without adequate spacing may be at risk of anaemia	Student should discuss effects of multiple pregnancies and its link to anaemia and provide reproductive choices that enable women to decide when to have children	Students should recognize that women often do not have the autonomy to make decisions related to child bearing or contraceptives should not blame the woman for repeated pregnancies.
Student should know the impact of anaemia on foetal growth and birth	Student should be able to counsel the family about the dangers of anaemia for the woman, and the life threatening risk it carries for her. The doctor should be able to talk to the family about non-discrimination on the basis of gender in a sensitive manner	Attitude of the student should not be utilitarian, meaning that treatment of the woman's anaemia should not be merely to have a positive pregnancy outcome, but that it should be for the woman's over all health

Context: When teaching anaemia

Note to Educator: Explain biological and socio economic and cultural factors causing anaemia among women.

Content

- I. In a cross-sectional study carried out using representative data from 1998 / 1999 and 2005 / 2006 NFHS health survey it was found that the prevalence of anaemia has

increased significantly from 51.3% to 56.1% among Indian women. In both periods anaemia was socially patterned being positively associated with lower wealth status, lower education and belonging to scheduled tribes and scheduled castes.⁶⁶

NFHS 3 shows high prevalence of anaemia in pregnancy (58%) across the country. Fifty-three percent of women and 23% of men age 15-49 years have anaemia.

- A hospital-based study carried out among pregnant rural women visiting a maternity clinic, observed that among 269 participants the prevalence of anaemia was 58.36%. A high prevalence of anaemia (96.8%) was found among housewives and agricultural labourers than among the employed, as agricultural labourers and housewives were not utilising the health services, which provided prophylaxis doses of iron and folic acid. Another significant finding was that women who were vegetarians showed a higher prevalence of anaemia (40.14%) than those who consumed a mixed diet.⁶⁷ In a study carried out among 300 pregnant women visiting the outpatient Department of Obstetrics and Gynaecology at the Punjab Institute of Medical Sciences, a high prevalence of anaemia (65.6%) was observed in pregnant women. Maternal anaemia was found to be significantly associated with a vegetarian dietary pattern. A larger number of antenatal mothers belonging to joint families (86.1%) suffered from anaemia than did those living in nuclear families, showing that unequal distribution of food in joint families and eating last or after serving the husband may contribute significantly to maternal anaemia.⁶⁸
- Women's low social status, lack of education and dearth of financial resources (or control over them) puts them in a precarious position when it comes to being able to access and utilise resources. As a result of the skewed distribution of resources in our society, women can access only smaller quantities and poorer quality of food, than their male counterparts. Current health programs do not take in to account lack of availability and accessibility of nutritious food despite the fact that anaemia is a major public health concern in India.

⁶⁶ Balarajan, Y. S., Fawzi, W. W., & Subramanian, S. V. (2013). Changing patterns of social inequalities in anaemia among women in India: cross-sectional study using nationally representative data. *British Medical Journal open*, 3(3), e002233. doi:10.1136/bmjopen-2012-002233

⁶⁷ Rajamouli, S., Ravinder, A., Reddy, S., & Pambi, S. (2016). Study on prevalence of anemia among pregnant women attending antenatal clinic at Rural Health Training Centre (RHTC) and Chalmeda Anand Rao Institute of Medical Sciences Teaching Hospital, Karimnagar, Telangana, India. *International Journal of Contemporary Medical Research*, 3(8), 2388-2391.

⁶⁸ Cheema, H. K., Bajwa, B. S., Kaur, K., & Joshi, H. (2016). Prevalence and possible risk factors of anaemia in different trimesters of pregnancy. *International Journal of Contemporary Medical Research*, 3(4), 1194-1197.

- In Indian society, discrimination in terms of food often begins at birth due to prevalent son preference. The girl child's health and nutritional needs are not likely to be prioritised, or may even be ignored, in favour of the boy child. Continued presence of such bias leads to the prevalence of anaemia among adolescent girls and later through the life span.
- Women are involved in all aspects of food such as production, processing and distribution. But they continue to be seen as unpaid workers despite contributing to the family income. Though India passed the Right to food Act 2013, access to nutrition and meals through the public distribution system, accessing schemes such as mid-day meals for pregnant women and children under 6 years has been a relatively slow process.⁶⁹

II. Management of anaemia during pregnancy

- Prevalence of anaemia is high in pregnancy. If no treatment is received during antenatal period, many women may enter labour with low haemoglobin levels, which can result in a life-threatening situation in the event of blood loss.
- Often anaemia coexists with multiple vulnerabilities. Women with anaemia are often malnourished in multiple ways; and/or have co morbidities like TB; may be migrants belong to low SES, or live in remote areas and have little access to services.
- Certain areas have recorded a high prevalence of sickle cell anaemia and malaria, and the latter is known to aggravate anaemia.
- Multiple pregnancies with close birth interval can prove risky for the foetus as well as mother. Pregnant women suffering from anaemia will have effects on the foetus, intra uterine growth retardation (IUGR).
- If a pregnant woman is resistant to iron supplements, she should also be tested for Thalassaemia or sickle cell disease. Both are conditions that might require termination of pregnancy.

⁶⁹ Center for Women's Global Leadership (2011). *The Right to Food*. Gender Equality and Economic Policy Meeting Report September 16-17, 2011. Retrieved from http://www.etoconsortium.org/nc/en/main-navigation/library/documents/?tx_drblob_pi1%5BdownloadUId%5D=31

- If the quality of care in health facilities is poor, women do not receive special care during labour and delivery. The situation can turn life-threatening in the absence of blood transfusion facilities.

Role of Doctor

- Doctor should suggest practical approaches and focus on intake of locally available and easily accessible nutrient rich foods.
- Doctor should be aware that prevention and treatment of diseases such as malaria and TB can help in curbing anaemia.
- Doctor should also discuss consequences of repeated pregnancies and its consequences in the context of anaemia and impact on women's health. Women must be provided with information about ways of delaying pregnancies and use of spacing methods. Efforts should be made to explain this to the partner with consent of the woman.

Semester 8

9. Miscellaneous: poisoning



Gender content added : Gender and haematology

Lecture name	: Miscellaneous: poisoning
Subject	: Medicine main
Semester no	: 8
Duration	: 1 hour
Methodology	: Lecture with discussion around case study
Resources	: 1. Datta, B. (Producer). Maitra, Ipshita (Writer & Director). (2011). At The Crossroads' इस्मोडपर [Motion Picture]. Mumbai,India: CEHAT and Point of View
Handouts	: ---

Key Points

1. "Accidental poisoning" could be a key sign of domestic violence and if present, these need to be explored and addressed.
2. Violence can lead to women attempting suicide or harming themselves through poisoning.
3. Women and girls may be reluctant to admit consuming poison because they are ashamed and fear social and legal consequences of such an action.
4. Health care practitioners should be able to screen for possibility of violence and strategise intervention accordingly (for example, refer the individual to a women's group or crisis centres).

Learning Outcomes

Knowledge	Skill	Attitude
Student should explore the possibility of association between poisoning and any form of violence against women, children, transgender or lesbian women, and the social or cultural trigger of self-harm	Student should demonstrate skill in identifying signs of domestic violence, sexual abuse or discrimination and stigma towards women / transgender people inside and outside the home	Student should have a non-judgmental attitude when women consuming poison reveal about domestic violence whether by family members, at the workplace, in public places or inside any institution

Context: When teaching poisoning.

Note to Educator: *The medical complaint of accidental consumption of poison needs to be screened for possibility of domestic violence.*

Content

I. Linkages between violence and self-harm

- Domestic or family violence is one of the leading causes of female injuries in almost every country and in some accounts for the largest percentage of hospital visits by women. In a population-based study on domestic violence, it was found that 64% had a significant correlation between domestic violence of women and suicidal ideation. Domestic violence has been associated with suicidal ideation.^{70,71} Violence has been found to be the leading cause of suicidal behaviour amongst females.
- Among mental health consequences of domestic violence, suicidal behaviour has been widely explored in developed countries. Several studies conducted in high income

⁷⁰ World Health Organization (2001). *The World Health Report 2001: Mental health: new understanding, new hope*. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/whr/2001/en/whr01_en.pdf?ua=1

⁷¹ Pillai, A., Andrews, T., Patel, V. (2008). Violence, psychological distress and the risk of suicidal behavior in young people in India. *International journal of epidemiology*, 38(2), 459-469.

countries have shown a higher lifetime risk of suicidal behaviour among women facing domestic violence. ^{72,73,74,75,76,77}

- Emotional abuse, in the absence of physical and / or sexual abuse, can drive women to a point where they find life unbearable. Emotional abuse can be in the form of insults, criticism and sarcasm, constant suspicion. Controlling behaviour in the form of restricting mobility of the women can also push women into taking this step.
- Marginalised women are more vulnerable to violence; including widows, disabled women, lesbian, bisexual and transgender women. The non-recognition or suppression of a person's nature and existence, not only violates one's fundamental rights, it also leads to stigma and discrimination at all levels and impinges on the mental, physical and social well being of those excluded. Such exclusion has several implications for women's mental health.
- Poisoning could be indicative of the fact that the woman tried to deliberately self-harm or attempt suicide. A retrospective hospital records study in Sunderbans India indicates that significantly higher proportion of women (63.3%) inflict deliberate self-harm by consuming poison in form of pesticides than males (36.4%).⁷⁸ The study brought to light psychosocial factors experienced by women attempting suicides such as dowry demands, humiliation and verbal and physical abuse by in laws and husband.
- Changes in the law that criminalised suicides now presumes severe stress in persons attempting suicide and that such persons shall not be tried and punished under the

⁷² Kaslow, N. J., Thompson, M., Meadows, L., Jacobs, D., Chance, S., Gibb, B., & Phillips, K. (1998). Factors that mediate and moderate the link between partner abuse and suicidal behavior in African American women. *Journal of Consulting and Clinical Psychology*, 66(3), 533-540.

⁷³ Vizcarra, B., Hassan, F., Hunter, W. M., Muñoz, S. R., Ramiro, L., & De Paula, C. S. (2004). Partner violence as a risk factor for mental health among women from communities in the Philippines, Egypt, Chile, and India. *Injury Control and Safety Promotion*, 11(2), 125-129.

⁷⁴ McFarlane, J., Malecha, A., Gist, J., Watson, K., Batten, E., Hall, I., & Smith, S. (2005). Intimate partner sexual assault against women and associated victim substance use, suicidality, and risk factors for femicide. *Issues in mental health nursing*, 26(9), 953-967.

⁷⁵ Sato-DiLorenzo, A., & Sharps, P. W. (2007). Dangerous intimate partner relationships and women's mental health and health behaviors. *Issues in mental health nursing*, 28(8), 837-848.

⁷⁶ Wong, S. P., & Phillips, M. R. (2009). Nonfatal suicidal behavior among Chinese women who have been physically abused by their male intimate partners. *Suicide and life-threatening behavior*, 39(6), 648-658.

⁷⁷ Devries, K., Watts, C., Yoshihama, M., Kiss, L., Schraiber, L. B., Deyessa, N., ... & Berhane, Y. (2011). Violence against women is strongly associated with suicide attempts: evidence from the WHO multi-country study on women's health and domestic violence against women. *Social science & medicine*, 73(1), 79-86.

⁷⁸ Banerjee, S., Chowdhury, A. N., Schelling, E., & Weiss, M. G. (2013). *Household survey of pesticide practice, deliberate self-harm, and suicide in the Sundarban region of West Bengal, India*. Bio Med Research International, 2013. doi:10.1155/2013/949076

said Code. "115. (1) Notwithstanding anything contained in section 309 of the Indian Penal Code any person who attempts to commit suicide shall be presumed, unless proved otherwise, to(2) The appropriate Government shall have a duty to provide care, treatment and rehabilitation to a person, having severe stress and who attempted to commit suicide, to reduce the risk of recurrence of attempt to commit suicide.

II. Gaps in medical treatment

- When a woman is brought to the hospital for suspected poisoning she is usually admitted for 'accidental consumption of poison'. The psychiatric evaluation of such patients usually leads to labelling them by noting the poisoning as 'impulsive deliberate self-harm' or 'maladjustment'. By describing the attempt as 'maladjustment' external factors that cause the symptoms are automatically ignored.⁷⁹ Psycho social counselling for attempted suicides is not a norm in public hospitals.
- Non recognition of sexual identities can drive women to suicide. But medical systems do not recognise their vulnerabilities. Instead medical system has engaged in aversive shock and behavioural therapy in attempts to 'convert' lesbian homosexuality and trans sexuality to heterosexuality. However, these treatment methods are coercive and a violation of human rights. It is pertinent for health professionals to remove same sex orientations from the discourse of disorders. Diagnostic and statistical manual (DSM) has now removed homo sexual relations. Therefore, commensurate changes must be made in clinical treatment and care.⁸⁰

III. Myths related to women / girls attempting suicides

- Health providers carry notions about women and girls attempting suicide. A common perception is that women attempt suicide just to 'attract attention'. Health providers sometimes also believe that a girl / woman took an insufficient amount of poison as she did not really intend to die. Such notions lead to trivializing the woman's problems. It is important for doctors and other health providers to understand social determinants that aggravate the conditions for women/ girls leaving them without any choice but to end their lives. Women living in marginalised conditions and who deviate from traditional roles face a further risk of violence. It is also important to recognise that

⁷⁹ Deosthali, P., & Rege, S. (2010). *Feminist response to attempted suicide: A model for public health intervention*. CEHAT Working Paper No. 2. Mumbai, India: Centre for Enquiry into Health and Allied Themes. Retrieved from <http://www.cehat.org/go/uploads/WorkingPapers/secondWP.pdf>

⁸⁰ People's Health Movement India (2007). *Indian women's health charter*. India: PHMI. Retrieved from http://phmindia.org/wp-content/uploads/2015/09/Indian_Womens_Health_Charter.pdf

mental / psychosocial disability is also a determinant of violence against women / girls.⁸¹

Case Study:

A young married woman is brought to your hospital by her husband and in-laws. They inform you that she has 'accidentally' consumed phenyl considering it as cough syrup and they found her lying in the kitchen, with the half-consumed bottle of phenyl.

The medical educator can ask students to respond to the case study. Students can be encouraged to ask questions that can sensitively understand the underlying issues

Key Points for Discussion

1. Do not trivialise the woman's attempt of self-harm. If she is conscious, validate her experience and assure her of your care and support.
2. After the woman is out of danger, talk to her to find out if the episode was really accidental. Assure her that you will not betray her confidentiality to the family.
3. Inform the woman that suicide is not a crime any more.
4. Enquire if she could not make out from the strong taste and odour of phenyl that it was not cough syrup to rule out the possibility of accidental consumption of the liquid.
5. Make her comfortable and then enquire if there is a component of domestic violence, which prompted her to take this drastic step.
6. If that is the case, refer her to counselling services. The woman should be provided with psychological first aid at whichever health facility she arrives.

⁸¹ Deosthali, P., & Rege, S. (2010). *Feminist response to attempted suicide: A model for public health intervention*. CEHAT Working Paper No. 2. Mumbai, India: Centre for Enquiry into Health and Allied Themes. Retrieved from <http://www.cehat.org/go/uploads/WorkingPapers/secondWP.pdf>

Role of Doctor⁸²

- A doctor should screen women brought in for poisoning for possible incidence of domestic violence and should address it effectively.
- A doctor should assess signs and symptoms and probe women coming in with poisoning and enquire about domestic violence in privacy and the assure confidentiality.
- A doctor should demonstrate a non-judgmental attitude so that she can disclose the real issue without fear.
- A doctor should prepare a safety plan and make an informed referral with the counsellor or social worker of the hospital.
- Healthcare providers can provide psychological first aid to the victim and help her build on familial and social systems of support.

⁸² World Health Organization (2013). *Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines*. Retrieved from http://apps.who.int/iris/bitstream/10665/85240/1/9789241548595_eng.pdf

Semester 8

10. Nutrition



Gender content added : Gender and nutrition

Lecture name	: Nutrition
Subject	: Medicine main
Semester no	: 8
Duration	: 1 hour
Methodology	: Lecture
Resources	: 1. Ransom, E., Elder, L. (2003). <i>Nutrition of Women and Adolescent Girls: why it matters?</i> Washington, D.C: Population Reference Bureau.
Handouts	: 1. World Health Organization (2014). <i>Global Nutrition Targets 2025: Policy brief series</i> . Geneva, Switzerland: WHO. Retrieved from http://www.who.int/nutrition/global-target-2025/en/

Key Points

1. The quality and quantity of the nutritional intake is affected by people's ability to access and make use of food and other necessary resources. Lack of nutritional choices for people living in poverty can lead to being underweight or overweight, diabetes and malnutrition.
2. The simultaneous occurrence of over nutrition and under nutrition in a population indicates that adults in India are suffering from a dual burden of malnutrition. Only 52% of women and 57% of men are at a normal weight for their height as per NFHS3.
3. Data available on estimates of nutrition in 7 cities from NFHS-3 (Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur) show that the prevalence of under nutrition and over nutrition among women and men vary widely. In general, both women and men are more likely to be too thin in slums than in non-slum residences more than half of women (55%) and almost one-quarter of men (24%) were anaemic as per NFHS 3.

4. Gender discrimination can lead to malnutrition, hunger and chronic fatigue, especially when combined with overwork and poverty. Women / girls, who are physically or financially dependent on others for survival, face such consequences even more seriously. Certain harmful cultural practices may prevent menstruating, pregnant, lactating or widowed women from accessing nutritious and adequate amounts of food.
5. Migrant, homeless, tribal, incarcerated, refugee or conflict affected women are more likely to suffer from malnutrition, as are girl children, adolescent and elderly or mentally / physically disabled women.

Learning Outcomes

Knowledge	Skill	Attitude
Student should explain the relationship between social inequality and malnutrition	Student should develop competence in identifying social factors that leads to malnutrition	Student should recognise social inequality as an underlying factor for malnutrition
Student should be able to describe how limited food choice contributes to stunting and underweight on one hand and obesity on the other hand	Student should demonstrate skill in identifying and addressing malnutrition	Student should realise limited food choices as a factor contributing to being underweight or obese

Context: When teaching about balanced diet

Note to Educator: Integrate the fact that gender can play a key role in determining access to nutrition.

Section 1

Content

- The power and privilege that people hold in a social system depends on various factors such as gender, class, caste, physical / mental ability, mental health, religion, age, livelihood ethnicity and soon. These privileges often determine who gets access over resources and to what extent.

- Malnutrition can be a manifestation of such social inequities where certain groups of people are deprived of food and essential nutrients due to lack of necessary means to acquire them physically and financially.
- Poverty, and related issues of accessibility, not only determine the quality and quantity of food but also cooking practices, such as use of inappropriate and unsafe pots that leech out iron from the food.
- Treatment of malnutrition, therefore, should also include counselling patients about proper methods of cooking in order to preserve nutrition in what is available and accessible to them.
- Buffalo meat is one of the major commodities among life stock products. However, a ban on beef has affected not only the economy but also led to lack of access to an affordable widely used source of protein.⁸³
- Some of the nutritional disorders like anorexia nervosa and bulimia nervosa are more common among women. Both these disorders are more prevalent among adolescents, largely due to social expectations of a certain kind of body image.

Section 2

Context: When teaching obesity

Content

- It is important to note that being underweight can result in life threatening situations for women in conditions, such as during pregnancy child birth or illness. On the other hand, cheaply available non-nutritious foods that result in obesity are becoming health hazards even for poor people, as they cannot access nutritious food.
- In less developed countries, it is the urban poor that are at highest risk of obesity, due to the fact that the cheapest and most accessible foods are likely to be calorie-dense, fast- and processed foods.⁸⁴ People living in poverty or migrants to cities are

⁸³ Khan, M., Nomani, A., Salman, M. (2016). Impact of Beef Ban on Economy and Meat Processing Industry of India: A Complete Value Chain Analysis. *Management Studies and Economic Systems (MSES)*, 2 (4), 325-334. Retrieved from http://msaes.org/article_40563_9037b8e76fae9928be487ab9d5acfbcb.pdf

⁸⁴ World Health Organization (n.d.). *Health and sustainable development: nutrition insecurity and unhealthy diet*. Retrieved <http://www.who.int/sustainable-development/cities/health-risks/nutrition-insecurity/en/>

compelled to base their diets on refined and processed foods that have high levels of chemicals, sugar and salt, and are often forced to substitute wholesome meals with non-nutritious fast foods, because vegetables, fruits, pulses, milk, meats and whole cereals are no longer affordable on a daily or even weekly basis.

- Therefore, body weight needs to be looked at in the context of very limited nutritional choices available to people living in poverty.
- Traditionally accepted western methods of assessing 'normal' body weight such as Body Mass Index [BMI] (which is a ratio between height and body weight) can be deceptive for poor women because they are stunted physically. Low height can render BMI to be normal even when a woman is obviously underweight.
- In order to prevent under nutrition and over nutrition, local food items should be promoted. Local cooking practices should also be promoted, like cooking in iron vessels to improve iron absorption and prevent anaemia.
- India has committed to achieve sustainable development goal on: Ending hunger and achieving food security as well as on improving nutrition. Important steps need to be taken by the Government of India in that direction. An important step is to strengthen universal care through primary health care, to enable national health systems to address malnutrition in all its forms.

Role of Doctor

- Doctors should be able to recognise the role of social inequities while diagnosing nutritional deficiencies.

Semester 8

11. Gastroenterology, hepatobiliary system and pancreas



Gender content added : Irritable bowel syndrome as a bio- psycho socio illness

Lecture name	: Gastroenterology, hepatobiliary system and pancreas
Subject	: Medicine main
Semester no	: 8
Duration	: 1 hour
Methodology	: Lecture and Discussion
Resources	: 1. Blanchard, E.B., Keefer, L., Galovski, T.E., Taylor, A.E., Turner, S.M. (2001). Gender differences in psychological distress among patients with irritable bowel syndrome. <i>J Psychosom Res.</i> , 50(5), 271-5. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/11399285
Handouts	: ---

Key Points

1. Addressing underlying vulnerabilities such as physical, emotional or sexual violence among women suffering from Irritable Bowel Syndrome (IBS).

Learning Outcomes

Knowledge	Skill	Attitude
Student should recognize physical, emotional and sexual violence as underlying clinical conditions for IBS	Student should sensitively enquire in to vulnerabilities experienced by women suffering from IBS	Student should not dismiss chronic aches and pains related to IBS in women or label women as having psychiatric issue.

Context: While teaching topic on Gastroentology

Note to Educator: Explain gender difference in occurrence and epidemiology of various gastrointestinal disorders so that students can integrate gender component while diagnosing

and treating these disorders.

Content

- Psychological characteristics including somatisation, depression and anxiety as well as history of sexual abuse may also contribute to gender related differences in the prevalence of IBS.⁸⁵ In general, depression, anxiety, and somatisation are more common in women compared with men.⁸⁶
- A study evaluated gender differences in quality of life in hospital outpatients (61%) and primary care patients (39%) with IBS. Women with IBS were found to have a lower quality of life and reported more fatigue, depressed mood, less positive well-being and self-control, and higher levels of anxiety compared with men with IBS.⁸⁷
- One of the concerns with production of medical knowledge is related to general principle in epidemiology. This branch determines the distribution of a given disorder in a population and factors that influence the distribution. But does not explain causal relationships between social variables and their association based on gender. For example, what are the reasons for higher rates of depression in women than men? Answers to such questions have come from psychosocial research. But medical research underemphasizes the issue of gender / gender differences.⁸⁸
- A bio-psycho-socio model of care is required to treat IBS and therefore the focus cannot be only on pharmacological treatment. Unless health providers sensitively probe in to the underlying reasons related to stress, the condition cannot be treated well.

Role of Doctor

- Doctors should be able to develop a bio- psycho- socio model to deal with IBS. A comprehensive treatment plan can be developed in consultation with counsellor to explore underlying stressors that play a role in development of IBS.

⁸⁵ Chang, L., & Heitkemper, M. M. (2002). Gender differences in irritable bowel syndrome. *Gastroenterology*, 123(5), 1686-1701

⁸⁶ Blanchard, E.B., Keefer, L., Galovski, T. E., Taylor, A. E., & Turner, S. M. (2001). Gender differences in psychological distress among patients with irritable bowel syndrome. *Journal of Psychosomatic Research*, 50(5), 271

⁸⁷ Simrén, M., Abrahamsson, H., Svedlund, J., & Björnsson, E. S. (2001). Quality of life in patients with irritable bowel syndrome seen in referral centers versus primary care: the impact of gender and predominant bowel pattern. *Scandinavian Journal of Gastroenterology*, 36(5), 545-552

⁸⁸ Davar, B., (1999). Women, Mental Illness and Epidemiology, pp.(36- 43). In *Mental Health of Indian Women: a Feminist Agenda*. New Delhi, India: Sage Publications.

Semester 8

12. Neurology



Gender content added : Gender differences in the onset, prognosis and course of common neurological diseases such as epilepsy.

- Lecture name : Neurology
- Subject : Medicine main
- Semester no : 8
- Duration : 1 hour 30 minutes
- Methodology : Lecture and Discussion
- Resources : 1. Baviskar, S., Bhagat, V., Kirte, R., Sharanabasavaraj, Shantala, J. Ms., (2011). Gender Disparities in Health Seeking Behaviour of Epilepsy Patients in Tertiary Care Facility of Rural Karnataka. *Current Neurobiology*, 2(22), 113-116. Retrieved from https://www.researchgate.net/publication/309209711_Gender_Disparities_in_Health_Seeking_Behaviour_of_Epilepsy_Patients_in_Tertiary_Care_Facility_of_Rural_Karnataka
2. World Health Organization (Producer). (2018, February 10). *WHO: reducing the epilepsy treatment gap in Viet Nam*. [Video File]. Retrieved from <https://www.oxelle.com/health/watch-reducing-epilepsy-treatment-gap-viet-nam-youtube>
- Handouts : 1. World Health Organization (2018) *Epilepsy: Fact sheet*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs999/en/>

Key Points

1. Women suffering from epilepsy may face social consequences such as stigma, discrimination, neglect, and desertion. Superstitious beliefs and practices such as religious or mystical healing may lead to delays in health care for those suffering from epilepsy. Degrading treatment and punishment may be meted out by family members or traditional healers to 'cure' epileptic episodes. Doctors treating epilepsy should dispel myths about it and ensure access to treatment.

Learning Outcomes

Knowledge	Skill	Attitude
Student should be aware of gender dimensions of female children and women with epilepsy	Student should have a non-judgmental attitude towards women patients	Student should be able to communicate that epilepsy is a treatable condition and counsel them to adhere and follow up with treatment

Note to Educator: While Epilepsy may have an underlying neurological issue, as doctors it is important to understand social consequences of suffering from such an illness. It is also useful to recognise health seeking differences in men and women related to epilepsy. Though both sexes may face discrimination, the implication for women are found to be acute

Content

I. Magnitude of epilepsy

- There are 50 million people living with epilepsy worldwide and most of them reside in developing countries. Of these about 10 million people are in India. There are close to 1.5 million women with epilepsy in the reproductive age group in India. About a sixth of women with epilepsy live in India, making up an estimated 2.73 million women with epilepsy, with 52% of them being in the reproductive age group.⁸⁹ The magnitude of epilepsy treatment gap in India ranges from 22% among urban middle income people to 90% in villages.⁹⁰

II. Gaps in treatment

- Persons suffering from epilepsy may suffer from anxiety, lack of confidence, feelings of depression and side effects of medication related to epilepsy.
- Many people with active epilepsy do not receive appropriate treatment for their condition leading to a large treatment gap. The lack of knowledge of antiepileptic

⁸⁹ Thomas, S. V. (2011). Managing epilepsy in pregnancy. *Neurology India*, 59(1), 59-65

⁹⁰ Meyer, A. C., Dua, T., Ma, J., Saxena, S., & Birbeck, G. (2010). Global disparities in the epilepsy treatment gap: a systematic review. *Bulletin of the World Health Organization*, 88(4), 260-266.

drugs, poverty, cultural beliefs, stigma, poor infrastructure and shortage of trained professionals contribute to this treatment gap.⁹¹

III. Stigma attached to epilepsy

- Epilepsy is associated with substantial stigma and discrimination in the Indian subcontinent as in many other low and middle income countries where culture has a strong influence on the life of people. There are many interpretations of the word epilepsy in different communities and even today it is referred to as 'punishment for participation in a forbidden sacrifice' in some societies. Common behavioural patterns associated with people with epilepsy have led people to believe that it is due to possession by evil spirits or sins of the past life. Though epilepsy is a neurobiological condition, its stigmatization leads to prejudicial attitudes and discriminatory behaviour. Men and women as well as children suffer from stigma related to this condition. It also affects access to employment opportunities, chances of getting a partner.⁹² Doctors are often not aware of the domino effect once a person is diagnosed with epilepsy.
- Stigma and discrimination against those suffering from epilepsy leads to concealment about the condition. But when it is disclosed women may face far more repercussions than men. The word epilepsy has been removed from the Hindu Marriage Act 1995 as grounds for divorce only recently.⁹³ For women, issues of child bearing and child rearing become critical during marriage. The status of epilepsy is often not disclosed at the time of marriage due to fear of failure of marriage negotiations. A study by Agarwal et.al, reported a lower marriage rate, delayed marriage especially among females, suspended marriage, discouraging pregnancies and higher divorce rate in women suffering from epilepsy as compared to general population.⁹⁴
- Current model of treatment for epilepsy has not gone beyond bio medical model in a public health setting. There is an urgent need to conceptualize a comprehensive preventive, promotive, curative, and rehabilitative healthcare delivery model that recognizes psycho social impact of living with epilepsy.

⁹¹ Santhosh, N. S., Sinha, S., & Satishchandra, P. (2014). Epilepsy: Indian perspective. *Annals of Indian Academy of Neurology*, 17 (Suppl 1), S3-S11

⁹² Amudhan, S., Gururaj, G., & Satishchandra, P. (2015). Epilepsy in India II: Impact, burden, and need for a multisectoral public health response. *Annals of Indian Academy of Neurology*, 18(4), 369-381.

⁹³ Santosh, D., Kumar, T. S., Sharma, P. S., & Radhakrishnan, K. (2007). Women with onset of epilepsy prior to marriage: disclose or conceal? *Epilepsia*, 48(5), 1007-1010. Retrieved from <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1528-1167.2007.01040.x>

⁹⁴ Amudhan S, Gururaj G, Satishchandra (2015). Epilepsy in India II: Impact, burden, and need for a multisectoral public health response. *Ann Indian Acad Neurol.*,18(4), 369-81. doi: 10.4103/0972-2327.165483

Role of Doctor

- A doctor should recognise psycho social impact of diagnosis of epilepsy. Treatment plan should consider involving family members to enable support and follow up for care. Doctors should also provide psychological first aid about living a life with epilepsy and encourage patients to join support groups to draw support.

Semester 8

13. Cardiovascular system



Gender content added : Gender and cardiovascular diseases

Lecture name	: Cardiovascular system
Subject	: Medicine main
Semester no	: 8
Duration	: 1 hour 30 minutes
Methodology	: Lecture and Discussion
Resources	: 1. Naderi, S., Raymond, R. (2014). <i>Pregnancy and Heart Disease</i> . Retrieve from http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/cardiology/pregnancy-and-heart-disease/
Handouts	: 1. Shanon Finks (n.d.) <i>Cardiovascular disease in women</i> . Retrieved from https://www.accp.com/docs/bookstore/psap/p7b01sample03.pdf

Key Points

1. Traditionally coronary diseases have been considered as a disease affecting men. Women were less likely to be referred for diagnostic or therapeutic procedures related to heart. Hormones such as progesterone and estradiol in non-menopausal women have been termed to be factors that protect women against heart ailments. However, if women engage in smoking, suffer from obesity, have hypertension they are also at a risk of heart ailments.
2. Understanding gender difference in occurrence and presentation of cardiovascular diseases (CVD) will help in early detection and treatment.

Learning Outcomes

Knowledge	Skill	Attitude
Student should recognize risk factors that predispose women to CVD	Student should be able to counsel women and family care givers about common CVDs and how they affect women	should be sensitive to gender difference in occurrence and presentation of CVD
Student should be aware of the impact of pregnancy on heart disease and importance of planned pregnancies in women suffering of rheumatic heart disease	Student should be able to counsel women and families about the risk of CVD for women, course of treatment and expected outcome	

***Note to Educator:** Discuss with students that medical research has ignored health needs of women with the exception of reproductive health research. Some unique features such as complications in pregnancy, gestational diabetes, and pregnancy induced hypertension can increase risk of CVDs. Doctors need to pay attention to unique factors that affect women's health*

Content ^{95,96}

- Both men and women with acute coronary syndrome (ACS) may often present with chest pain but their descriptions of pain and associated symptoms may vary, demonstrating sex differences in the pathophysiology of ACS and gender variations in reporting.
- Women sometimes also develop CVDs during pregnancy. CVD complicates 1% to 4% of pregnancies, with congenital heart disease (CHD) being the most common pre-existing condition and hypertension the most common acquired condition. The incidence of maternal CVD appears to be growing, due to increasing maternal age,

⁹⁵ Seeland, U. Regitz-Zagrosek, V. (2013). Sex and gender differences in cardiovascular drug therapy. In: Regitz-Zagrosek V. (eds) Sex and Gender Differences in Pharmacology. *Handbook of Experimental Pharmacology*, vol 214 (pp. 211-236). Berlin, Heidelberg: Springer

⁹⁶ Naderi, S., & Raymond, R. (2014). *Pregnancy and heart disease*. Retrieved from <http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/cardiology/pregnancy-and-heart-disease/Default.htm>.

and cardiovascular risk factors (i.e., obesity, diabetes, and hypertension).

- Given the potential complications associated with maternal CVD, doctors assess for risk factors such as diabetes, smoking, alcohol consumption etc. This information can assist doctors to manage CVD in women patients during pregnancy.
- The complex nature of disease among these patients requires a multidisciplinary approach with the involvement of obstetricians, cardiologists, anesthesiologists, and intensivists who are experienced in caring for these patients.
- It is recognised that sex-related differences in the lipid profile, hormonal status and influence of menopause, body composition, etc. might make the clinical presentation, the interpretation of diagnostic findings and prognosis of similar clinical conditions to differ between both sexes.
- Prolonged mental stress and depression have been identified as significant factors leading to CVD related ailments for both men and women. But the likelihood of experiencing this kind of stress have been found to be higher in young women with poor health outcomes. Hence it is important for doctors to recognise these stressors in women.⁹⁷
- Evidence indicates that primary diagnostic strategies such as ECG, angiography and angioplasty are based on male patterns of obstructive CVDs and these may not work in cases of women. This may leave women undiagnosed or may lead to a delay in diagnosis.⁹⁸

Role of Doctor

- The medical fraternity should acknowledge the fact that women form a distinct sub population for coronary heart disease.
- Doctors should recognise that women and men's presenting health complaints differ and therefore careful attention needs to be paid to women. As doctors, the underlying biological factors for differences in men and women are already known. But attention needs to be drawn to risk factors that predispose women to CVD.

⁹⁷ Vera, Z., Sabine, O., Eva, P. et. al. (2016). Gender in cardiovascular diseases: impact on clinical manifestations, management and outcomes. *European Heart Journal*, 37, 24-34. Retrieved from <https://academic.oup.com/eurheartj/article-pdf/37/1/24/17899710/ehv598.pdf>

⁹⁸ ibid

Semester 8

14. Nephrology



Gender content added : Kidney transplants and emerging ethical issues

- Lecture name : Nephrology
- Subject : Medicine main
- Semester no : 8
- Duration : 1 hour
- Methodology : Lecture and Discussion
- Resources : 1. Jindal, R.M., Ryan, J.J., Sajjad, I., Murthy, M.H., Baines, L.S. (2005). Kidney transplantation and gender disparity. *Am J Nephrol.*, 25(5),474-83.
2. Malattiri, R. (2012). *Gender disparity in kidney transplantation in Indian scenario*. In Conference: World Bioethics Congress, At Rotterdam, Netherlands. Retrieved from https://www.researchgate.net/publication/273766336_Gender_Disparity_in_Kidney_Transplantation-Indian_Scenario
- Handouts : 1. Shah, N., Ayarkar, S., Rege, S., Deosthali-Bhate, P. (2017). *Illegal kidney transplants: Where lies the problem?* Retrieved from <http://www.cehat.org/uploads/files/Kidney%20racket.pdf>

Key Points

1. There is a high demand for kidney transplants and poor supply of organ donations. Proportion of deceased donations is much less than living donations in kidney transplants. This has led to illegal transplants and rackets. Kidney donors do not receive comprehensive information about health consequences of donations. It is critical that doctors give equal importance to the health of not just recipients but also donors of kidney. An important step in doing so is to assess whether consent for donation is obtained with full and informed consent or under duress / threat / persuasion.
2. Women are the largest donors of kidney and there are gendered reasons underlying the issue of kidney transplant which need to be assessed carefully.

Learning Outcomes

Knowledge	Skill	Attitude
Student should recognize that doctors have legal and ethical responsibilities in the kidney transplant	Student should be able to seek informed consent skillfully and inform the donors about the health consequences appropriately	Student should be aware of gender disparities in context of kidney donations

Note to Educator: The issue of kidney transplant requires doctors to focus on both recipient as well as donor. The doctor has a dual role, therapeutic and legal in the context of kidney transplant. Verifying the true relationship between donor and recipient through examination of documents, medical tests, and photographs as well as protecting the interests of donor by ensuring informed consent, physical and mental evaluation of the donor become important duties of doctors.

Content

I. Emerging issues related to kidney transplantation

- A kidney transplant is the transfer of a healthy kidney from one person to another who has little or no kidney function.
- Kidney transplant data from 1971 till date available with the Indian Transplant Registry (a non-government effort supported by the Indian Society of Organ Transplantation) shows that only 4,841 women have received kidneys from living donors against 15,771 men in the same period.⁹⁹
- A review carried out by AIIMS in Delhi indicated that 75% of kidney donors are women; similar trends have also been noted by other hospitals in India. Another study also estimates that 70-90% donors are women. The same report states that women are seen in the role of nurturers, sustainers and therefore it assumed that a woman will step up to donate a kidney.¹⁰⁰

⁹⁹ Indian Society of Organ Transplantation. (n.d.). *Indian Transplant Registry*. Retrieved from <http://www.transplantindia.com/>

¹⁰⁰ Bhattacharya, P. (2017). *Women Donate, Men Receive: The Lopsided Truth About Organ Donations*. NDTV. Retrieved from <http://sites.ndtv.com/moretogether/women-donate-men-receive-lopsided-truth-organ-donations-991/>

- A retrospective cross-sectional study (2014) using data collected from kidney transplantation centres in Kerala, to analyse the gender disparity in kidney donation and transplantation showed that among 592 cases, 74.2% of donors were female and 25.8% male donors. At the same time, 76.2% of the recipients of kidneys were male and 23.8% were females.¹⁰¹
- Even in cadaver donations - that is transplantation of kidneys from a cadaver, there is substantial gender disparity. In the last 45 years, as per the Transplant Registry, 542 men have got cadaver transplants, against 241 women.¹⁰²

II. Ethical issues in kidney donation¹⁰³

- Organ transplants are also out of reach for a majority of the population due to a shortage of organs, inefficient and inequitable allocation of available organs, lack of necessary infrastructure and the high costs of transplants. Many ethical issues are involved in organ donations which are carried out for commercial purposes. Most of the donors face a number of social vulnerabilities like poverty, low education which force them to sell their organs, and usually they are not fully informed about the illegal nature of these activities and its ill effects on their health. Doctors should take into account all these factors as well while handling cases of kidney transplants.
- There is a lack of transparency in the manner in which the transplantation teams at the hospital carry out the entire procedure. Evaluation related to eligibility of recipient of kidney and donor for transplant, who will be the executor of the actual transplant, Protector of patient's interests are clear concerns which remain unaddressed in a commercially driven health sector. Thus whether patient and the donor fit the exact criteria related to these indicators is obliterated and the focus shifts to commercial interests rather than therapeutic aspects of the donor of kidney.

¹⁰¹ Malattiri, R., & Kumar, N. K. (2014). Gender Disparity in Indian Renal Transplantation. *AJOB Empirical Bioethics*, 5(3), 1-7.

¹⁰² Mehta, D., Saksena N., Mittal, Y. (2017). *Organ transplant law : assessing compatibility with the right to health*. Retrieved from https://static1.squarespace.com/static/551ea026e4b0adba21a8f9df/t/59c9f0c24c0dbf45c95e9792/1506406622843/170925_Organ+Transplants+Report%2BFinal.pdf

¹⁰³ Shah N., Ayarkar, S. et. al. (2016). Illegal kidney transplants: Where lies the problem?. Mumbai: CEHAT. Retrieved from <http://www.cehat.org/advancesearch?q=nehal+shah+kidney>

Role of Doctor

- A doctor should implement principle of non-maleficence and recognise that not just the recipient but the donor is also a patient and needs equal attention to health. Adequate efforts must be made to assess whether consent for donation was given freely or under persuasion / commercial interest / threat etc.

Semester 8

15. Endocrine disorders



Gender content added : Gender and Diabetes

Lecture name	: Endocrine disorders
Subject	: Medicine main
Semester no	: 8
Duration	: 1 hour
Methodology	: Lecture and Discussion
Resources	: 1. Bajaj, S., Jawad, F., Islam, N., Mahtab, H., Bhattarai, J., et. al. (2013). South Asian women with diabetes: Psychosocial challenges and management: Consensus statement. <i>Indian J EndocrinolMetab.</i> 17(4),548-62. doi: 10.4103/2230-8210.113720.
Handouts	: ---

Key Points

1. It is important to consider the gender aspects of emerging health challenges such as diabetes, which can have disproportionate impact on women's health. Infertility, miscarriages, poor pregnancy outcomes are major impacts of diabetes on women.
2. Women's gender role of caring and putting the family first leads them to neglect their own health issues. Additionally, women may be anxious about financial implications of diabetes related treatment. Frequent check-ups for sugar levels, life-long medication, especially injectable insulin, dialysis (if needed), travel costs are concerns that women have. These lead them to neglect their health.

Learning Outcomes

Knowledge	Skill	Attitude
Student should learn a life cycle approach to deal with diabetes in women	Student should be able to communicate the risk of diabetes to women and the resulting debilitating conditions it can precipitate if adequate care is not taken from the very beginning	Student should encourage women patients to get themselves diabetes check up and to act upon it without delay

Note to Educator: In many societies women are dependent on men. In contexts where all the economic decisions are taken by men, it may be difficult for women to achieve equality in terms of access to information, prevention activities, services and support for diabetes.

Content

An estimated 20% of the global burden of diabetes, comprising 84 million people, is in South East Asian Region (SEAR). These numbers will triple to 228 million by the 2025. WHO has projected the maximum increase in diabetes to occur in India.

I. Women and diabetes

- The disease itself may not discriminate on the basis of sex, but when it comes to healthcare for patients with diabetes, women in India find themselves at a disadvantage compared with men. Nearly 60% of diabetics in India have never been screened or diagnosed due to lack of awareness.¹⁰⁴ This may be due to limited access.
- Diabetes has long been recognized as a critical factor in ensuring reproductive health in particular because it can affect the health and wellbeing of both mothers and their unborn children. Gestational diabetes mellitus is a form of diabetes, which affects pregnant women. For doctors it is important to address maternal health both during ante and post natal period.¹⁰⁵

¹⁰⁴ International Diabetes Federation (2015). *IDF Diabetes Atlas*. Brussels, Belgium: IDF. Retrieved from http://www.oedg.at/pdf/1606_IDF_Atlas_2015_UK.pdf

¹⁰⁵ WHO (2016). *Global report on diabetes*. Geneva, Switzerland: WHO. Retrieved from http://apps.who.int/iris/bitstream/10665/204871/1/9789241565257_eng.pdf

- Urbanization, changes in diet, high fat content food, and sedentary life style have increased the burden of diabetes in men and women. But health inequities exist between men and women. Hence efforts must be made to enable diagnosis and access to treatment for women.

Role of Doctor

- Given the risk of gestational diabetes it is critical to address prevention strategies through education, screening, treatment and action plan for well being of women in reproductive ages. Similarly, women in menopause and older women need to be considered in the diabetes prevention strategies.

Gender Sensitive Clinical Practice

CHECKLIST TO ENSURE GENDER-SENSITIVE APPROACH IN INTERNAL MEDICINE CLINICS

Items	Yes	No	NA
<p>General</p> <ul style="list-style-type: none"> ● Don't keep pregnant or distressed women waiting unnecessarily ● Provide adequate comfortable seating arrangement in relatively secure and private area ● Greet with warm, friendly smile, be attentive, maintain appropriate eye-contact ● Ensure dignity and respect 			
<p>Procedures in place to ensure privacy</p> <ul style="list-style-type: none"> ● Have an enclosed space to talk to the patient that ensures auditory and visual privacy, e.g. curtains, some amount of soundproofing <ul style="list-style-type: none"> a. During history taking b. During abdominal and pelvic examination ● Ensure that you speak with the patient alone, apart from speaking in the presence of relatives or accompanying persons 			

¹⁰⁶ The following checklist was developed by the mentors and GME faculty under the Integrating Gender in Medical Education project in Maharashtra. It was felt that this must be taught to students before they are placed for their clinical postings. The checklist was reviewed by 37 medical educators across Maharashtra in a Workshop on Evolving Evidence based Clinical Practice held on 24th - 25th November, 2017 in Mumbai. This was organized by CEHAT in collaboration with the DMER, UNFPA, Seth GS Medical College and K.E.M.Hospital.

Items	Yes	No	NA
<p>Information obtained from patients treated in a confidential manner</p> <ul style="list-style-type: none"> ● Ensure that information given by the patient remains confidential in any form, verbal, written, recorded or computer-stored, and is not revealed to any person without the patients' consent ● While transferring the information between two devices, chances of breach in confidentiality will be taken care of ● Do not discuss patient with other staff or in front of other patients, with family or friends ● Make patients aware of and get consent for reasons for which the information given by them needs to be communicated to any other person: <ul style="list-style-type: none"> a. Other doctors b. Partner and family members c. Police / lawyers <p>This information may pertain to HIV status, incidence of domestic violence or sexual abuse.</p> <p>In cases of accidental consumption of poison seek history about suicide attempt in a safe space and provide first line support</p>			
<p>Details of sexual and reproductive health i.e. menstrual history Childbirth / pregnancy, obtained in sensitive manner</p> <ul style="list-style-type: none"> ● Maintain a non-judgmental attitude, being sensitive and maintaining confidentiality towards disclosures about abortion, sex selection, sexual orientation, sexual practices and gender identity 			

Items	Yes	No	NA
<ul style="list-style-type: none"> ● Maintain a non-judgmental attitude towards patient when provided with history regarding genital lesions ● Maintain a non-judgmental attitude towards sex workers 			
<p>Physical examination done in a manner that respects patient's privacy and dignity</p> <ul style="list-style-type: none"> ● Auditory and visual privacy ensured ● Appropriate covering of patient ● Ensure gender-appropriate chaperone wherever necessary ● Informed consent explaining indication, details of procedure ● Adequate lubrication, instruments at comfortable temperature (avoid hot / cold instruments) ● Be non judgemental about patients/clients during examination irrespective of clinical conditions they present with - e.g. STI, pregnancy out of marriage ● Explain findings, discuss diagnosis and further management plans after examination sensitively and countercheck to confirm that patient / legally authorized representative understands ● Be respectful in language and behaviour ● Autonomy - right to partial or total refusal for examination, treatment options 			

Items	Yes	No	NA
<p>Domestic violence assessment</p> <ul style="list-style-type: none"> ● Ensure that women or girls showing signs and symptoms of any form of violence will be assessed for domestic violence incidence 			
<p>Procedure or admission services</p> <ul style="list-style-type: none"> ● All available options and alternate scenarios discussed with woman and if she desires so, with her partner ● Informed consent - with adequate information on advantages, side effects and complications provided ● No coercion or conditional provision 			
<p>Adolescent services</p> <ul style="list-style-type: none"> ● Non judgemental attitude regarding marital status, sexual practices, sexual orientation, request for contraception ● Provision of services - information, contraception, abortion, referral ● Consent of adolescent regarding disclosure of information to parent / guardian 			

MCQ with answer key - Building of a question bank on Integrating Gender in Medical Education

Single best response:

1. **The term transgender refers to a person who has**
 - a. A person who has undergone a sex change
 - b. A person who loves to wear clothes of the opposite sex
 - c. A person who role-identifies differently from the assigned sex at birth
 - d. A person who prefers same-sex intercourse

2. **Intersex is a term used for persons whose anatomy is not typical and includes all variations except**
 - a. Large clitoris
 - b. Pendulous breasts
 - c. Absence of vagina
 - d. Absence of gonads

3. **Which of the following statements about gender in healthcare is not true**
 - a. More women than men are likely to be anaemic
 - b. More women die of tuberculosis related complications than men
 - c. Women diagnosed with HIV are at higher risk of stigma and discrimination than men
 - d. Medical professionals are insensitive and often stereotype women's health problems

4. **Which of the following statements about gender-sensitive history taking is not true**
 - a. Assurance of confidentiality and privacy can enable seeking detailed history
 - b. Medically unexplained symptoms in women are attributable to their proneness to seek attention
 - c. While taking history in the clinics it is important to focus on identifying issues related to privacy, dignity, confidentiality, and being non-judgmental
 - d. Disclosure of illness, especially a stigmatized one can lead to various problems including domestic violence, discrimination and desertion for women

- 5. The following statements about gender and communicable diseases is correct, except**
- A community-based survey in India showed women had a higher TB morbidity rate, but used health services less
 - A study in India found that more leprosy cases among women and elderly were detected through community-based surveys than through service-based detection methods
 - A study in India found the gap between noticing a symptom of leprosy and seeking healthcare access was considerably longer for men than women
 - Restrictions on women's mobility also place constraints on their autonomy in using services
- 6. The following statements about gender effect on malaria are correct, except**
- Women who wake up before dawn to perform household chores are more likely to have greater contact with mosquitoes
 - Clothes traditionally worn by women expose their bodies to more mosquito bites
 - Because poor women cannot afford treatment, they are more likely than men to rely on dubious traditional remedies
 - Pregnancy does not have an impact on malaria
- 7. Women develop more severe COPD at younger ages than men and with lower level of cigarette exposure because of**
- decreased dose-dependent tobacco susceptibility
 - bigger lungs and airways
 - lesser exposure to second hand smoke
 - health care providers may miss screening women who come in with respiratory problems for smoking
- 8. The following statements about gender effect on tuberculosis are correct, except**
- Pregnant women living with TB are twice as likely to have premature babies
 - The Revised National Tuberculosis Control Programme (RNTCP) detects nearly three times more female than male TB patients
 - Extra-pulmonary TB has higher prevalence among women than men
 - Access to resources and right to making treatment related decisions rested with the family in case of women
- 9. The following statements about gender effect on nutrition are correct, except**
- A girl child's health and nutritional needs are often ignored, in favor of the boy child

- b. Because of the skewed distribution of resources, women can access larger quantities of food than their male counterparts
- c. Menstrual bleeding, pregnancy and lactation all lead to increased nutritional demand
- d. A gender-insensitive healthcare will treat woman's anemia merely to have a positive pregnancy outcome

10. The following statements about gender effect on gastro-intestinal disorders are correct, except

- a. Depression, anxiety, and somatization are more common in women presenting with irritable bowel syndrome compared with men
- b. A bio- psycho-socio model of care is required to treat IBS and therefore the focus cannot be only on pharmacological treatment
- c. Domestic violence can manifest as poisoning but not as chronic gastro-intestinal symptoms
- d. Healthcare provider should not dismiss chronic aches and pains related to IBS in women or label women as having psychiatric issue

11. The following statements about gender effect on neurological conditions are correct, except

- a. Stigma and discrimination against those suffering from epilepsy leads to concealment about the condition
- b. The word epilepsy has not been removed from the Hindu Marriage Act 1995 as grounds for divorce, and is a source of discrimination against women
- c. Women with epilepsy are more unlikely to get access to job opportunity as compared to men
- d. In some societies, epilepsy is referred to as 'punishment for participation in a forbidden sacrifice'.

12. Match the following:

- | | |
|--------------------|---|
| a. Stigma | 1. Natural method of contraception |
| b. Discrimination | 2. Protection of data and restricting access |
| c. Privacy | 3. Stereotyping roles of males and females |
| d. Confidentiality | 4. Attribute that devalues a person in society |
| e. Gender | 5. Providing dignity to the patient |
| f. Intersex | 6. Selective change in the behaviour of health care provider towards certain patients |

- g. Domestic violence
- 7. Role play assigned to a girl child
- 8. Unusual combinations of gonads, chromosomes and external genitalia
- 9. Common cause for poisoning among females

Single best response (case-based):

Savithri, a 36-year old housewife, is married to Devanand, since last 2 years. Devanand works in the army and is most of the time away on duty. Savithri is looked after by Devanand's father. Savithri approaches a general practitioner Dr. Ramesh, with complaints of cough with expectoration, fever and weight loss since 1 month. Dr. Ramesh suspects tuberculosis and along with the tests to confirm tuberculosis also gets done an HIV ELISA test. The doctor does not discuss these tests with Savithri. When the HIV ELISA test report comes positive, Dr. Ramesh, (who is also a family friend) calls Savithri's father-in-law and informs him of the results of the tests. Dr. Ramesh opines that there is an option of chronically managing the HIV infection through government action of providing highly active anti retroviral treatment. Dr. Ramesh advises the father-in-law to inform Devanand. Devanand claims that Savithri has been unfaithful to him and pleads with his father to throw Savithri out of the house.

1. Which of the following is true about counselling:

- a. Pre-test counselling does nothing except make the patient hostile
- b. Post-test counselling is only required in positive test result cases
- c. Counselling is different from consent as it provides for a continuity of services
- d. NACO guidelines make it optional to counsel a patient but mandatory to take consent before HIV testing

2. Which of the following is true about gender discrimination, except

- a. There is no gender discrimination in our society as the constitution of India ensures equality
- b. Women are blamed for the transmission of HIV because they are 20 times more likely than men, to get infected.
- c. Gender discrimination is a driver of the spread of the disease
- d. Gender discrimination leads to women accessing healthcare

Multiple response (case-based):

3. Please mark all the statements you believe to be false

- a. Privacy relates to the patient (also known as client) and confidentiality relates to the data about this person
- b. In this case Dr. Ramesh was correct in informing Savithri's father-in-law as her husband was unavailable
- c. In the case of a dependent adult (like Savithri) the test result cannot be shared with the relative who is caring for the person
- d. Dr. Ramesh should have called the husband directly rather than informing the father-in-law

True / False Type:

1. Sex and gender are conceptually the same and the words can be used interchangeably
True / False
2. The term "gender" is a social construct and refers to the social, economic and cultural attributes and opportunities associated with being male or female in a particular setting at a particular point in time.
True / False
3. Sex is a binary concept, with two options: male or female, both based on a person's reproductive functions (genitals, sex chromosomes, gonads, hormones, reproductive structures)
True / False
4. The term transgender refers to a person who has undergone a sex change operation
True / False
5. If a woman is repeatedly presenting with gastro-intestinal complaints it may possibly be due to domestic violence
True / False
6. Accidental poisoning in a female could be a key sign of domestic violence or discrimination
True / False

7. Domestic violence and marital discord results in men attempting suicide or harming themselves through poisoning
True / False
8. Domestic violence is the fourth leading cause of suicidal behavior amongst females
True / False
9. Women are the largest donors of kidney and there are gender reasons underlying the issue of kidney transplant
True / False
10. Nearly 60% of diabetics females in India have never been screened or diagnosed due to gender discrimination and lack of awareness
True / False

Key to Question Bank

Single best response

1. C
2. B
3. B
4. B
5. C
6. D
7. D
8. B
9. B
10. C
11. B

12. Match the following

- a. 4
- b. 6
- c. 5
- d. 2
- e. 3
- f. 8
- g. 9

Single best response (case-based)

1. C
2. A
3. A, C

True/False responses:

1. F
2. T
3. F
4. F
5. T
6. T
7. F
8. F
9. T
10. T



Centre for Enquiry Into Health And Allied Themes

CEHAT is the research centre of Anusandhan Trust, conducting research, action, service and advocacy on a variety of public health issues. Socially relevant and rigorous academic health research and action at CEHAT is for the well-being of the disadvantaged masses, for strengthening people's health movements and for realizing the right to health care. CEHAT's objectives are to undertake socially relevant research and advocacy projects on various socio-political aspects of health; establish direct services and programmes to demonstrate how health services can be made accessible equitably and ethically; disseminate information through databases and relevant publications, supported by a well-stocked and specialised library and a documentation centre.

CEHAT's projects are based on its ideological commitments and priorities, and are focused on four broad themes, (1) Health Services and Financing (2) Health Legislation, and Patients' Rights, (3) Women and Health, (4) Violence and Health.

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