Abstract

Background: Reproductive health of women is considered as the central feature of human development. A healthy child is one of the best gifts of good female reproductive system ensuring the survivor of child to withstand the changing global diverse situations. Even though now-a-days some organizations decided and are planning that teachers and parents should be involved as primary sex educators through friendship.

This review article is aimed to design to provide and insights the update information and the relationship between women’s reproductive health and COVID-19 is necessary for optimum management of such condition.

Methodology: In this narrative review, literature search done by using PubMed, Medline, Google Scholar and Cochrane data bases of systemic review and citation list of relevant publication.

Conclusion: In the pandemic high risk situation it is necessary that health care teams to focus more on women’s mental health, domestic violence, sexual relationships, use of contraceptive methods and intending for child bearing. Providing virtual group educations and use of national media, could enhance the awareness of women’s reproductive health. Further study may reveal more clearly the various aspects of women’s reproductive health during COVID-19.

Key words: COVID-19; Childbearing; Domestic violence; Family planning, pandemics; Reproductive health; Sexual exposure.

Introduction

The COVID-19 virus became a pandemic worldwide by the end of 2019 and the World Health Organization declared an emergency health status for the whole world. The most common routes of transmission of the corona virus include direct transmission (Cough, sneezing, and inhalation of drops) and contact transmission (Contact with mouth mucous membranes, nose, and eyes). The current situation in the world has affected almost all important economic, political, social, military and even mental health aspects of the people of different countries and has caused a state of crisis.

Crises are the events that occur suddenly as the result of a natural event or human actions and cause multiple damages to humans and human societies. Women’s reproductive health is one of the most important public health issues in crises. It is necessary to discuss reproductive health in crises due to the collapse of health infrastructure and harm to the families.

Women’s reproductive health is considered as one of the most essential steps to achieve sustainable development in different societies. Women’s reproductive health means complete social, psychological and physical well-being in all matters related to the reproductive system and its functions and processes, not just lack of disease or absence of organ defect.

One of the dimensions of reproductive health is violence, which increased under the influence of the Covid pandemic due to quarantine conditions and reduced access of the people to the supportive networks. Quarantine policies not only increased domestic violence, but also led to drug abuse, anxiety, depression and suicide.

Sexual function is another aspect of reproductive health, which has been influenced by multidimensional changes in the covid pandemic. Sexual desire and the frequency of sexual intercourses have significantly increased, but the quality of sexual intercourse has decreased. Meanwhile, people's desires for pregnancy, use of contraceptive methods and menstrual disorders have significantly increased.

In the current high-risk situation, due to the uncertainty of the recovery time of this disease, additional psychological pressure is imposed on people. This pressure is mainly due to fear and anxiety about infection and controlling the disease. Insufficient information about the disease, long quarantine, financial loss due to restrictions, fear and anxiety about infection, and being away from loved ones can have a significant impact on mental health of people, especially women.
In the current situation, it is necessary to examine the effects mentioned above, because after determining the effects, the health care teams should identify high-risk women, then develop training programs and use social media to complete the necessary training for the public. This review article attempted to summarize the issues related to women's reproductive health during COVID-19.

Search Strategy
Available studies and abstract were identified through PubMed, Medline, Google Scholar and Cochran date bases (2008-2020). Key search topic were “Women’s Reproductive Health during COVID-19” and relevant articles the references lists of review article were also searched. The search term were following key word used in various combination : COVID-19; Childbearing; Domestic violence; Family planning; Pandemic; Reproductive health; Sexual exposure.

Discussion

Unintended Pregnancy Burden:
Worldwide more than 200 million women either want to defer or avoid pregnancy so it is the best time for the USAID and other consulting agencies to fulfil their wide range coverage of newer effective contraceptive appliances. In the USA more than 19 million i.e 99% of sexually active women of reproductive age use contraception. This is primary healthcare information for everyone that it must be known to those underprivileged sector of the different portions of the globe where they are either ignored or dominated by families.10

The World Health Organizations (WHO) assessed in 2008 "Reproductive and sexual ill health accounts for 20% global burden of ill health for women".10

According to United Nations Population Fund (UNFPA); Unmetneeds for sexual and reproductive health deprive women of the right to make "crucial choices" about their own bodies and futures affecting famille welfare.11

Child Marraige:
According to WHO : "Highest prevalence of childhood marraige under 18 in the world in NIGER, while the highest rate of marraige of girls under 15 occur in Bangladesh".12

The alarming global perspective are :
* More than 10% of birth world wide account for teenage girls.
* Approximately 5 million unsafe abortions performed in girls aged 15-19 years yearly and is considered as public health crisis.13

These teenage pregnancy are high risk and more prone to develop Preterm labor (PTL) and Preterm Rupture of Membrane (PROM). PROM can cause transmission of Sexually Transmitted Infections (STIs) HIV to the newborn; which is also the main reason for high rate i.e 75% of 7.5 million of annual perinatal death.

As the estimated overall global prevalence of child marriage in Niger having the negative impact on economy that lead to an intergenerational cycle of poverty, lack of skills and knowledge of job prospects required to lift their families.14

Formal or informal union of child before the age of 18 is child marraige; which is a violation of children's human rights.15

The COVID-19 pandemic resulting in a sharp and steady rise in child marraige in Bangladesh Experts are afraid of that child marraige can force girls to abandon school when the pandemic is finished.

The observation of Tony Michael Gomes, director of technical programmes at World Vision International, Bangladesh, echoed concerns about the rising trend of child marriage in Bangladesh including other practices like brideprice and dowry contributor of forced child marraige national wide.

Child marriage is an epidemic in Bangladesh. Only worsens with natural disaster mentioned by Heather Barr, Senior researcher on women's right; that affecting 29% girls.

High Fertility Rate:
The high fertility in most of the African countries due to lack of contraceptive facsilities including family planning, forced early adolescents marraige specially in Niger, Angola, Mali, Burundi and Somalia-with a fertility rate of almost 7 children per women. Niger is the highest fertility rate followed by Mali in the Globe.16

Unsafe Abortion:
Every year almost 25 million unsafe abortions demonstrate the failure of the policies and systems
of the countries to uphold the individual right to be informed and seek safe abortion options. It is a life threatening procedure and forgotten emergency. Unsafe abortion is the only almost completely preventable aetiological background; that still accounts for at least 1 in 12 maternal death globally. There has been little improvement in the negative impact of unsafe abortion.\textsuperscript{17}

\textbf{Global Scenario:}
About 45\% of abortions deemed unsafe and more than 22,000 female population (Girls & women) die each year following attempts of unsafe abortion observed by Gultamacher Institute of comprehensive report published in 2018. 97\% death due to unsafe abortion occur in Africa, Latin America, Southern and Eastern Asia though the regions having Medecins Sans Frontiers (MSF) offers medical assistance during requirement.\textsuperscript{18}

Enormous post abortion complications with and estimated 7 million woman and girls require hospitalization yearly followed by permanent disability or secondary infertility-though the incidents and scenario remain unforeseen either due to lack of care or girls who dare not.\textsuperscript{19}

Unsafe abortion mean unnecessary maternal mortality or a barrier in a health care delivery system!

According to WHO, "Approximate 20 million included abortions annually occur worldwide, of which 95\% occur in developing countries responsible for death of about 80,000 women.

\textbf{High Immigrants Ratio:}
The young female immigrants are in great entrapment of sexual abuse, the ultimate outcome of both carrier and sufferer of STI e.g syphilis, chlamydia, AIDS etc.\textsuperscript{20}

\textbf{Sexual Exposure:}
The early sexual debut, too early, too many and too close pregnancies make the genital tract expose to high oncogene HPV. Approximate annual global death of 2,66,000 women occur from cancer cervix. Worldwide cancer cervix is the 4th most common female malignancy with an estimated 570,000 new cases detected in 2018. Almost 90\% of 311,000 death observed globally during 2018 occurred in LMIC's\textsuperscript{2,1}

More than 85\% observed in low income countries. HIV +ve women are 6 times higher risk of having cervical cancer.\textsuperscript{22}

The World Health Assembly (WHA 73.2) adopted global strategy to accelerate the elimination of cervical malignancy as a public health problem and its associated goals and targets for the period of 2020-2030,\textsuperscript{20} such as:

i) 90\% of girls fully vaccinated with HPV vaccine by the age of 15.

ii) 70\% of women are screened with a high performance test by the age of 35 and 45 years respectively.

WHO has developed guidance and tools for prevention and control of cervical malignancy through vaccination, screening and treatment. These are implemented as partnership and comprehensive programs.\textsuperscript{23}

Genital HPV is the most common sexually transmitted infection in the US. The International Agency for Research on cancer found that about 10\% of women with 13 types persistent HPV infection develop cervical cancer as a long lasting consequence.\textsuperscript{24}

\textbf{Genital Mutilation:}
In some parts of Africa, Female Genital Mutilation or Cutting (FGM/FGC) are still ongoing; which is really brutal.

As the practice is mainly located in the Western, Eastern and North Eastern regions of Africa, in some countries of Middle East and Asia, as well as among immigrants from these regions considering it as a global issue.\textsuperscript{25}

The most common victims of FGM are young girls between infancy and adolescence; sometimes adult women also become victimized. Annual affection of FGM are more than 200 million. Women and girls today. Data collected from 30 countries.\textsuperscript{26}

The economic burden of FGM conducted by WHO regarding health consequences has found that current costs for 27 countries totalled 1.4 billion # US dollar during the year 2018.\textsuperscript{27}

FGM is a violation of human rights of girls and women that is a real threat of serious gender discrimination and nearly carried out on minors.
The Productive Solutions of above Mentioned Problems are (As follows) Important:

i. Specified planning for wider accessibility to contraceptive appliances including sufficient supply with essential health workers and provide some apps for easy communication and motivation for safe sex practice in remote areas preferably.

ii. Achieving safe motherhood strategies, i.e. ANC, high risk pregnancy management, safe delivery, post partum care including one step service for post partum contraception to minimize unwanted pregnancy and unsafe abortion.

iii. Providing necessary care bundle for obstetric emergency like establishing blood storage facility in community health centre including safety transfusion and screening.

iv. To reduce huge burden of cancer cervix especially in developing countries, vaccine prophylaxis initiative should be considered. Vaccination may be included in EPI schedule for both male and female in the targeted areas.

v. In case of child marriage, they must have sex education and at least secondary education must be ensured to influence them positively to raise their voice.

vi. FGM must be permanently banned.


* Though COVID-19 is not a STD related virus but extremely contagious that affect the individual with 6 feet distance. Population density, overcrowding, harbouring of TB immuno suppression in DM and malignancy and certain chest disease may potentiate the overwhelming spread for the disease.

* Till date the management is mainly supportive; in advance stage ICU dependency.

* Some society and organizations advice to avoid pregnancy during COVID-19.

* So, the global challenge is to prevent pregnancy and follow special contraceptive consideration for improving and protection of female reproductive health during and post COVID-19 which can be following:

i. Adolescent or teenage contraceptive plan to prevent teenage pregnancy, STD exposure and transmission.

ii. Contraception at or after the age of 40.

WHO says, "For all nearly 48 million women identified by UNFPA as in need of humanitarian assistance and protection 2020, the dangers of COVID-19 outbreaks pose will be magnified". It calls for humanitarian action plan to account for the need to respond to the pandemic.

To overcome the global challenge of 4D (Disaster by COVID-19, disease production, Damage of organs, Distress global wide) by 4C creativity of mankind, communication, co-operation and collaborations action among the organization like WHO, UNICEF, UNESCO and USAID.

What would be mirror image of post COVID-19 2020 era? The availability and pre-requisite of Remdesivir, recent effective antiviral agent. The virulence, recurrence and persistence are still a matter of ongoing research. If the researcher reaches to be positive conclusion by administration of vaccine with or without antivival agent, precaution by using mask and maintaining social distance, limitation of movement can we be able to break the curse of COVID-19?

The ultimate goal is to start a journey or to run a in a new pace of COVID free world!

Conclusions

- Women’s reproductive health awareness is an important integrated dimension and an educational approach which is both relevant and sensitive in many issues.
- To stop adolescent marriage specially in outreach area to understand them that it is a crucial aspect of reproductive health as it is the period of physical, psychological, emotional growth and exposure to society and environment.
- All over the world almost 70% of health and social services workers are female e.g. midwives, nurses and visitors etc.
Crossover from MDG to SDG: collaboration co-operation and continuum of activities and including supply of food, safe water, ensuring secondary education to plan for world free from hunger, poverty and unnecessary preventable death, in the under privileged sector of the globe.

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Disclosure
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