

Literature Review: The Impact of the Covid-19 Pandemic on Reproductive Health in Women of Childbearing Age

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ABSTRACT

During the COVID-19 pandemic, many women of childbearing age experienced impacts on their reproductive health, the impacts were; menstrual cycle disorders (of 1031 participants, 53% experienced PMS), stress (of 220, (44.56% experienced stress)), physical and sexual violence (of 682 participants, 24.6% experienced psychological violence and 8.3% physical violence), high risk during childbirth (8,207 mothers gave birth with Covid (a third, 31.5% were admitted to hospital for treatment)), unplanned pregnancy (from 30 participants 23 mothers (76.7%) became pregnant due to the advice to stay at home during Covid-19), potential to experience infertility (only 1.8% still require further research). For this reason, knowledge and protection for women is important in facing this pandemic. Literature sourced from database *Google scholar, pubmed, cochrane* published from 2020 to 2021, and manually selected articles relevant to the research statement. The keywords used are (**Kespro, WUS, impact of the Covid-19 pandemic**). The journals found were then screened based on appropriate topics and the year the journal was published, resulting in 9 journals being reviewed. Based on the research results of 9 journals that were reviewed, it was concluded that during the COVID-19 pandemic, women must be given protection and knowledge in facing the COVID-19 pandemic. Based on the research results, it is concluded that to prevent and deal with the impacts that occur on reproductive health in women of childbearing age, health workers and community leaders can further increase the provision of education to the public, especially women, about healthy lifestyles during the COVID-19 pandemic. .

Keywords: Reproductive Health, WUS, Impact of the COVID-19 Pandemic

Introduction

At the beginning of 2020, the world was shocked by a disease that causes death and is transmitted so easily, namely through skin touch and the respiratory tract. This disease is caused by a virus called corona, this type of virus is a new version of a collection of viruses that can infect the respiratory system and cause death. Historically, the corona virus was first identified as the cause of the common cold in 1960 (Al-Osail and Al-Wazzah, 2017).

The World Health Organization (WHO) in 2020 translated the corona virus as a virus that will cause the common cold to more severe diseases such as Middle East respiratory syndrome (MERS-CoV) and breathing severe acute (SARS CoV) which has caused more than 106 million infections and 2.3 million deaths worldwide, as of February 2021, according to the WHO COVID-19 Dashboard.

Dr. Denise Jamieson of Emory University in Atlanta GA and colleagues at the University of Florida have reported on the effects of COVID-19 on pregnancy and the implications for women's

reproductive health specifically for women's fertility. Epidemiological data: Pregnant women with COVID-19 infection experience a more severe course with a greater likelihood of hospital and ICU admission and a greater possible risk of death. Pregnant women with Covid 19 are more likely to undergo caesarean section, but the indications may vary and are not entirely due to the mother's illness. Possible birth premature is also more common among infected women.

Besides that obtained during the Covid-19 pandemic, women experienced changes in their menstrual cycles. Of the 1031 participants who conducted a survey, it was found that 441/46% of women who menstruated reported overall changes in their menstrual cycles during the COVID-19 pandemic. 483/53% reported worsening of premenstrual symptoms (PMS), while 60/7% felt that their PMS had improved. 255/29% noted reduced cycle length and the average reduction was 3 days (2-6) and 28% reported longer cycles with an average increase of 3 days (2-6). 158/17% did not menstruate during the pandemic, 27/4% more than before the pandemic. 72/9% reported new missed periods, 56/7% of them "occasionally" and 16/2% "often". 17/21% who "sometimes" missed periods before the pandemic, "often" missed periods during the pandemic. 40/31% of those who had missed a period previously had no missed period during the pandemic. 467/45% of women reported a decrease in their libido and 131/13% reported an increase in their libido. 447/47% of women reported heavy menstruation (Menorrhagia), 27/5% more than before the pandemic. 469/49% reported dysmenorrhea, 53/7% more than before the pandemic. 173/30% reported new painful periods and 49/12% reported that previous painful periods improved during the pandemic.

Sexual violence is also experienced by women from their partners. A total of 682 participants were involved in this study. The prevalence of intimate partner violence against women was found to stand at 24.6% with psychological violence being the most common (13.3%), followed by physical (8.3%) and sexual violence (5.3%). Women were more likely to suffer violence if they were housewives (AOR, 95% CI (18.062 (10.088, 32.342))), age less than 30 (AOR, 95% CI (23.045 (5.627, 94.377))), women with marriage (AOR, 95% CI (2.535 (1.572, 4.087))) and women with husbands' ages "between" 31-40 (AOR, 95% CI (2.212 (1.024, 4.777))). An increase in sexual violence has been shown during the COVID-19 pandemic due to lockdowns, leaving women without the opportunity to escape from their abusive partners.

In context, it must be remembered that reproduction is not only an innate biological function of producing new individuals, but also has many social and physical dimensions. A good sexual quality of life with frequent safe sex is necessary to achieve adequate physical, mental, and social health (Yuksel, and Ozgor, 2020). To this end, there is an important need to identify biological and behavioral reproductive risk factors associated with COVID-19 disease. Reproductive health includes the physical ability to reproduce, that is, to become pregnant (or cause conception), to carry a pregnancy safely to term, and to give birth to a healthy child and the internationally recognized right to decide "freely and responsibly" if, when, and how often to do it.

So based on the description above to include the ability to have a safe, voluntary and satisfying sex life; the right to know about and use effective methods of fertility management of one's choice and the right to receive quality reproductive and sexual health care. So that core services are provided including voluntary family planning (contraception and safe abortion); prevention, diagnosis, and treatment of sexually transmitted infections and infertility; comprehensive maternal and newborn care; and education, information, and legal, social, and health services related to sexual and gender-based violence and other issues to assist every woman in maintaining good reproductive health. Because according to the United Nations states that every person has the right to the highest reproductive health standards that can be achieved and WHO has given a warning to treat patients in isolation facilities, carry out prevention and control (IPC) in health facilities and the community by adapting new habits, namely using mask, keep your distance and wash your hands frequently when holding something. (Whitworth 2020). The aim of this research is to integrate and conclude matters related to the impact of the Covid-19 pandemic on reproductive health in women of childbearing age.

METHODS

1. Research Questions

Example: Clinical Question → Impact of the Covid19 pandemic on reproductive health in women of childbearing age.

Problem: The impact of the Covid19 pandemic on reproductive health in women of childbearing age

Intervention: -

Comparison: -

Outcome : Every woman can experience optimal services for her reproductive health and experience improved physical and mental health.

The keywords used in the literature search are a combination of keywords such as the following: Reproductive health, women productive age, impact pandemic covid-19.

2. Inclusion and Exclusion

Search results are limited to 2017 to 2021 and manually select articles that are relevant or appropriate to the question study The article inclusion criteria are: (1) Participants are women, (2) Research results show the influence of reproductive health during the pandemic, while criteria Exclusions were articles that were not relevant to the research questions.

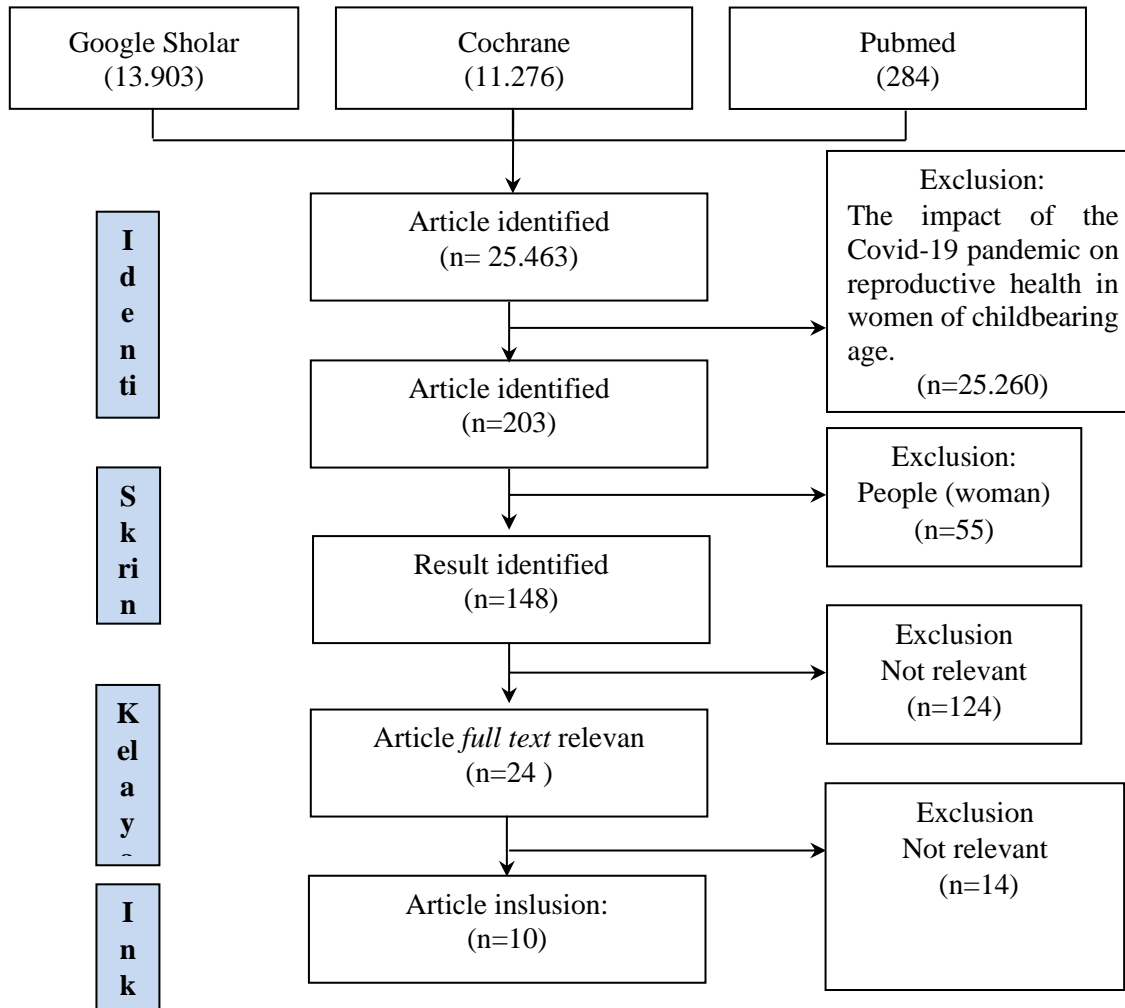
3. Literature Study

A literature search was carried out by identifying all types of international articles regarding women's behavior in maintaining reproductive health during the Covid-19 pandemic. *Database* the electronics used are *PubMed*, *Cochrane*, and *Google Scholar* with a search strategy using the PICO method (*patient, intervention, comparison and outcome*) (Eriksen & Frandsen, 2018).

Variable Literature Review

The impact of the Covid-19 pandemic on reproductive health in women of childbearing age.

Database Search



RESULTS AND DISCUSSION

This literature review describes 9 journals that discuss the impact of Covid-19 on reproductive health in women of childbearing age. According to Rong Li, T. Y (2020) The potential pathogenicity of COVID-19 can affect testicular and ovarian function, as well as the quality of sperm and oocytes (egg cells). Contraception is highly recommended to prevent the effect of treatment on embryo development and fetal health, contraception is used not only during antiviral treatment, but also after treatment (for no less than 8 months). However, there is still a lack of evidence to support termination of pregnancy due to COVID-19 infection without other medical indicators.

According to Liesanmi O, Otolurin D, et al. (2020) Due to new regulations to reduce the spread of COVID-19 infections, the level of intimate violence experienced by women from partners has also increased, this is due to restricted activities and physical activities. Intimate violence from partners

occurred physically, emotionally, sexually and psychologically. Of the 682 participants, 24.6% experienced psychological violence and 8.3% physical violence. This has an impact on reproductive health, namely injury and serious reproductive health problems such as sexually transmitted infections (for example HIV) and unplanned pregnancies.

According to S. Legro, R. (2021) Collecting research results from experts regarding COVID-19 infection on human reproductive health. The SARS-CoV-2 virus in semen is like small particles that resemble the corona virus, so this is still in the verification stage due to the limited data. There is still uncertainty about the link between COVID-19 and early miscarriage and birth defects or potential infertility (because according to the data only 1.8% experienced it and even then further research is still needed to confirm the existing statement). However, existing data shows that pregnant women with COVID-19 infection are at greater risk with a greater likelihood of hospital and ICU admission and a greater risk of death.

According to Nesrein M. Hashem, S. A (2021) Pregnancy >20 weeks in China, so far, there is a lack of vertical transmission (maternal-fetal transmission during pregnancy) of the spread of the COVID-19 virus. However, newborns from mothers infected with COVID-19 experienced increased levels of IgM antibodies, only 2 hours after birth, because the babies were infected through vertical intrauterine transmission. And existing data shows that 8,207 mothers gave birth with Covid (a third, 31.5% were admitted to hospital for treatment.

According to Nyashanu M, Ikhile D, et al. (2020) During the COVID-19 pandemic, women with self-employed jobs felt a big impact where they were forced to stop working due to regulations to reduce the occurrence of infections. Because of this, many women experience health problems, especially those who are single parents or the backbone of the family. For this reason, the government must provide social and economic support to self-employed women during this period to ensure that their psychological well-being, that of their families and themselves is not compromised at this critical time.

According to Ahmed Y (2020) Maternity services are inadequate in countries with low resources and are adapting to provide antenatal and postnatal care amidst a health system environment that is changing rapidly due to the COVID-19 pandemic.

According to Niamh P, Lucy Ann B, Lisa O (2021) The majority of the female population has experienced reproductive health problems as a result of the COVID-19 pandemic. This disorder is associated with a significant increase in suffering from mental health symptoms, such as weight gain, working longer hours and unhealthy diets. A minority of women have described improvements in reproductive health and lifestyle during the pandemic. Women report disruptions in their menstrual cycles that are known to be associated with psychological distress. From data from 1031 participants, 53% experienced PMS during the Covid-19 pandemic.

According to Gebremeskel T.G, et al. (2020) During the COVID-19 pandemic, the prevalence of intimate violence was relatively higher against women. Because the husband's education level, being a housewife, and having an arranged marriage are closely related to domestic violence by each husband. Identifying high-risk individuals is important to strengthen links between social and national health systems, family law and police investigations to prevent the high impact of violence against women.

According to Ewa S, Paulina K, Anna P, et al (2021) Lockdown regulations during COVID-19 are associated with a high incidence of depressive symptoms, as well as an increased risk of sexual dysfunction in women and decreased libido. This research can be used to improve psychological, psychiatric and psychological care during stressful events

REFERENCES

- Adaramoye, O. A. (2015). Lopinavir/Ritonavir, an Antiretroviral Drug, Lowers Sperm Quality and Induces Testicular Oxidative Damage in Rats. *The Tokai journal of experimental and clinical medicine*, 40: 51-57.
- Almasry, S. H. (2017). Structural evaluation of the peritubular sheath of rat's testes after administration of ribavirin: A possible impact on the testicular function. *International journal of immunopathology and pharmacology*, 30: 282-296.
- Al-Osail, A. M.-W. (2017). The History and Epidemiology of Middle East Respiratory Syndrome Corona Virus. *Multidisciplinary Respiratory Medicine*, 12(1):1–6.
- Barreta, M. G. (2013). The components of the angiotensin-(1-7) system are differentially expressed during follicular wave in cattle. *Journal of the Renin-angiotensin-Aldosterone System*, 16: 275-283.
- Bukhari, S. A. (2018). Post interferon therapy decreases male fertility through gonadotoxic effect. *Pakistan journal of pharmaceutical sciences*, 31: 1565-1570.
- Fan, C. L. (2020). ACE2 Expression in Kidney and Testis May Cause Kidney and Testis Damage After 2019-nCoV Infection. medRxiv.
- fzal MS, K. A. (2020). Community- based assessment of knowledge, attitude, practices and riskfactors regarding COVID-19 among Pakistanis residents during a recent outbreak: a cross-sectional survey. *J Community Health*, 1-11.
- Gebremeskel T.G, G. G. (2020). Intimate partner violence against reproductive age women during COVID-19 pandemic in northern Ethiopia 2020: a community-base cross-sectional study. *Gebrewahd et al. Reproductive Health*, 17:152.
- Hofer, H. D.-M. (2010). Seminal fluid ribavirin level and functional semen parameters in patients with chronic hepatitis C on antiviral combination therapy. *Journal of hepatology*, 52: 812-816.
- Joseph NT, R. S. (n.d.). The effects of COVID-19 on pregnancy and implications for reproductive medicine. *Fertil Steril*. In press.
- Lukassen, S. L. (2020). SARS-CoV-2 receptor ACE2 and TMPRSS2 are primarily expressed in bronchial transient secretory cells. *EMBO J*.
- Munawa, E. (2020). Studi Perilaku Masyarakat Aceh Dalam Menghadapi Pandemi Covid-19. *The new normal life for family, Population and human Development*, 1.

- Nesrein M. Hashem, S. A. (2021). Potential impacts of COVID-19 on reproductive health: Scientific findings and social dimension. *Saudi Journal of Biological Sciences*, 1703-1708.
- Niamh P, L. A. (2021). The Impact of the COVID-19 Pandemic on Women's Reproductive Health. *Frontiers in Endocrinology*, 3-4.
- Reis, F. B. (2011). R.A.Angiotensin-(1-7), its receptor Mas, and the angiotensin-converting enzyme type 2 are expressed in the human ovary Fertil. Steril, 95: 176–181.
- Rong Li, T. Y. (2020). Potential risks of SARS-CoV-2 infection on reproductive health. *RBMO*, 41: 90-91.
- S.Legro, R. (2021). COVID-19 Pandemic and Reproductive Health. *Journal Pre-proof*, 6.
- uynh G, N. M. (2020). Knowledge attitude, and practices regarding COVID-19 among chronicillness patients at outpatient departements in Ho Chi Minh City, Vietnam. *Risk Manage Healthc Policy*, 13:1571.
- Whitworth, J. (2020). COVID-19: A Fast Evolving Pandemic. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 114(4):227–28.
- Xin Zou, K. C. (2020). The single cell RNA seq data analysis on the receptor ACE2 expression reveals the potential risk of different human organs vulnerable to Wuhan 2019 nCoV infection. *Frontiers of Medicine*.