**Gender Perspectives of COVID-19**

**Abstract:**

Corona Virus Disease (COVID)-19 is a global threat. This pandemic has created a whole lot of problems in the entire globe. In addition to the typical bio-medical problems for which the entire scientific community is searching for solutions the pandemic has also created a plethora of social problems that the social scientists are grappling with to find out redressal measures. This pandemic has created problems in the realm of “gender” as a separate entity. Pandemics of such nature affects the men and women differently creating different biological, social, occupational and behavioral problems. Pandemics make the existing gender inequalities worse and strongly affects the care and support that the women and girls receive. Research evidences reveal that men are more strongly affected with COVOD-19 compared to women. Thus, it becomes utmost important that the gender perspectives of COVID-19 should be understood properly and proper institutional mechanisms should be in place to address gender equality while finding mitigating measures to curb the pandemic of COVID-19.

**Key Words:** Equity, Female workforce, Gender equality, Pandemic, Sex

**Introduction:**

Cases of Pneumonia with unknown etiology were reported during December 2019 in Wuhan city of Hubei province, China and thereafter these cases started spreading to other parts of China and overseas as well. On 11th March it was declared as a pandemic by the World Health Organization [1]. Currently more than 200 countries and all the continents are affected by this pandemic. Initial research indicate that older persons and those with underlying medical conditions are more likely to develop the serious complications of COVID-19 [2] and more man than women are more likely to get affected severely however all vulnerable populations are getting affected as the disease emerged severely and affected humankind despite their socio-economic background, religion, geographic distribution and gender as well [3,4]. Furthermore, research on humanitarian crisis suggest that these conditions affect differently to different group of vulnerable population however there is limited research on how public health emergencies affect particular groups such as women and girls [5,6]. Traditionally policies and public health interventions have not addressed the gendered impacts of disease outbreaks [7]. This paper briefly analyzes the gendered impact of COVID-19 based on different parameters.

**Biomedical Angle:**

The initial research indicates that men are more vulnerable to COVID-19 than that of the women and is applicable to both morbidity and mortality [8]. In one of the studies that analyzed a case series of 43 patients (22 Male and 21 Female) from 29th January to 15th February 2020 in Beijing revealed that the men had serious disease outcomes compared to female and is statistically significant (0.035). The same study also evaluated a public health data set of 37 cases and 1019 cases who died and survived of COVID-19 respectively. The analysis of this data set revealed that the death among male is 70.3% and among female it was 29.7% (n=37) and is statistically significant (X2 test, P = 0.016). Among the survival group the absolute number of males were 510 of 1019. Furthermore, this study analyzed a data set of 524 cases and 139 deaths from SARS that were reported from 25th March to 22nd May 2003 from 29 hospitals in Beijing area and found that the proportion of deceased men was higher (53.2%) compared to the survived group (42.3%), (X2 test, P = 0.027) [9]. Another study conducted in Wuhan among 425 patients revealed that 56% of the patients were male [10]. A study that revealed clinical characteristics of 140 patients in Wuhan, China concluded that percentage of male cases (50.7%) was higher than that of women (49.3%, n=140) [11]. The Beijing study revealed that despite same level of susceptibility among men and women, the death among men is 2.4 times higher than that of women and men tend to develop more serious complications compared to female as per the clinical classification criteria [9]. Therefore, gender is one of the significant determinants of mortality and morbidity in COVID-19 irrespective of age and susceptibility. This gendered factor is correlated to the general demographic profile of men around the world in which men have a shorter life expectancy compared to women. Studies reveal that both SARS-COV and SARS-COV-2 attack the human cell through a common receptor, ACE (Angiotensin Converting Enzyme)-2 [9, 12]. It has been found out that the circulating ACE-2 is higher in men than women and among those with co-morbidities such as diabetes and cardio vascular diseases [13]. In addition to these recent findings on COVID-19 earlier studies on infectious disease also reveal similar experiences in relation to mortality and morbidity amongst men. The prevalence of Influenza among men has rendered a different name as “man flu” [14]. Considering the significance of this World Health Organizations has emphasized that “sex should be considered while evaluating Influenza exposure and outcome” [15]. One of the studies that evaluated the epidemiological data of seasonal influenza from 2004 to 2010 in Hongkong revealed that men had higher risk of hospital admission than that of female [16]. Similarly, another observational study that evaluated the mortality data from 1997 to 2007 found that men had higher mortality compared to female with same age group in USA irrespective of their underlying conditions such as heart disease, cancer, renal disease and chronic respiratory systems disease [17]. In addition, studies also reveal the relevance of sex hormones [18] and “X” chromosomes in infectious disease susceptibility among men [19]. There are evidences of male dominance among the laboratory animals as well, especially studies on mice [20-22]. These observations explain the biological link with higher mortality and morbidity among men compared to women.

**Social, Behavioral and Mental Health Angle:**

There are social and behavioral aspects that affect the gendered dimensions of COVID-19 and any other disease for that matter. It has been observed by different studies that women do have more protective behavior compared to men [23]. This might be due to the higher level of outdoor activities of men compared to women especially in Indian settings. In cases of COVID-19 as physical distancing and hand hygiene has been the main strategies to ward off the infection the same has been observed to be more appropriately adhered by women than men. The domain of Sex-and Gender-Based Medicine (SGBM) deals with the fact that how biological sex and socio-cultural and behavioral gender affect the health and illness and is also observed in infectious diseases [24]. It has been further observed that men are involved with higher risk-taking behaviors compared to women which in fact traditionally continues before the COVID-19 pandemic [25]. In addition, women do take care of their hand hygiene practices which is a protection behavior for COVID-19 [26]. The current pandemic of COVID-19 heavily weighs on emotional wellbeing along with focus on physical wellbeing. There is a simultaneous contagion of fear, anxiety and social stigma which would have metal health implications including Post Traumatic Stress Disorder (PTSD) [24]. One of the studies assessed the prevalence and predictors of posttraumatic stress symptoms (PTSS) in China’s hardest-hit areas during COVID-19 outbreak using the PTSD Checklist for DSM-5 (PCL-5) and 4 items from the Pittsburgh Sleep Quality Index (PSQI) among 285 residents in Wuhan and surrounding cities. The study revealed that after one month of COVID-19 pandemic the Post Traumatic Stress Symptoms (PTSS) were 7% and women reported higher PTSS [27]. One of the important behavioral determinant of disease severity in COVID-19 has been the smoking behavior and has got a strong gender link. The severity manifestation in COVID-19 among men is also attributable to smoking. Data from China (288 million men vs 12.6 million women), Italy (1.12x to 1.7x, depending on age cohort) and USA (17.6% men and 13.6% women) show that smoking is more among the men than the women and the same exacerbate the severity of the disease [28-30].

**Occupational Angle:**

Previous experiences show that emergencies/crises can have serious impact on job markets. It has been observed that economic downturns have more impact on men compared to women owing to the very nature of men’s job as they are mostly involved in manufacturing and construction works and women’s work is more concentrated in less cyclical sectors such as healthcare and education [31]. Furthermore, it has been estimated that 70% of the health workforce globally are the women most likely the frontline health workers such as nurses, midwives and the community health workers [32]. This share of female health workforce in Hubei province of China is higher and is around 90% putting the female workforce at higher risk compared to men [33]. Having this estimation, it has also been found out that majority of health facility service staffs such as those who work in laundry, kitchen and cleaning department are also women and the most vulnerable to the infection. Women have also been found to have less access to personal protective equipment and correctly sized equipment. Experiences of 2014-16 Ebola outbreak in West Arica also reveal that women were more infected with the virus compared to men owing to their care giving role both inside the families and in work places [34, 35]. The decision-making authority around disease outbreaks have been very less compared to men in work settings and their needs are largely unmet [36]. Despite this fact women’s participation in national and global decision-making process in COVID response is very minimal. During these crises situation women are overburdened and unpaid and underpaid in many occasions [37]. Albeit WHO recognizes the significance of women’s participation in national and global decision-making process however the same is not clearly reflected in action [38,39].

**Exacerbating health issues:**

Pandemics and health related crises around the world invite other health related problems and exacerbate existing health problems as well. It is especially observed among women and young children. It brings a plethora of both mental health and organic problems around the world. Gender specific considerations need to be made for people in quarantine facilities as the health and sanitary needs for both these genders would be different [37]. If not met these improper arrangements may lead to different health consequences. Women face sever crisis in accessing sexual and reproductive health services owing to several reasons and many a time these conditions get aggravated because of gender-based violence/intimate partner violence [40]. Earlier pandemics have also shown similar findings such as Zika and Ebola [37]. It has been seen during the Ebola outbreak that the resources of reproductive and sexual health were diverted towards Ebola response which resulted in rising maternal deaths in Sierra Leone and was highest in the world during that time [41]. During Zika outbreak women were not adequately allowed to exercise autonomy over sexual and reproductive health compounded by inadequate access to health facilities and poor financial conditions [42]. In addition, pregnancy and child birth during COVID-19 would have different requirements in terms of health systems access, family support, medications and outcomes related to both pregnancy and child birth [43-45].

**Gender based violence (GBV):**

Gender based violence during humanitarian crises and public health emergencies is a manifestation of inequalities and vulnerabilities [46]. Domestic violence has increased in different parts of the world owing to COVID-19. An early report from the Hubei province of China where the outbreak started shows a tripling of domestic violence case reports during February 2020 [47]. Evidences show that measures such a social distancing and quarantine along with health and economic shocks exposes women to violence. Amidst all these crises women find it very difficult in accessing both health and legal services and in many instances, police have shown reluctance to detain the perpetrators owing to COVID-19 outbreak in prisons [48]. Reports from South Africa also suggest that there is an increasing rate of GBV being reported as restrictions have been imposed to tackle the COVID-19 situation however women have no resources to mitigate GBV [49]. It is also reported that the shelter homes are taking hard decisions and refusing new clients unless they prove negative with the fear of spreading the infection [48]. Globally many countries are reporting GBV and in fact has increased to many fold owing to COVID-19 creating another set of problems such as; issues of sexual and reproductive health, contraception, menstrual health, maternity care etc.

**Health systems response and recommendations:**

During the public health emergencies, the health systems should appropriately respond keeping the gender concerns in mind. During this pandemic of COVID-19 following recommendations should be kept in mind to address gender-based problems;

* Sexual and reproductive health needs are of utmost importance and needs high attention during public health emergencies.
* Strict adherence to infection prevention and control strategies is required while conducting maternity care and child birth procedures.
* Ensure the continuous flow of family planning and other sexual and reproductive health commodities.
* Obstacles and barriers must be addressed while enabling care for the women and girls and continuity of care must be ensured.
* The referral pathways for the GBV must be updated.
* Pregnant women associated with respiratory illness must be treated with utmost priority.
* Public health surveillance system must include sex segregated data.
* Provision of mental health and psychosocial support need to be ensured.
* All workers including women in COVID-19 response should be provided with adequate personal protective equipment.
* Most importantly women should be an integral part of planning and decision making in COVID-19 response [50].

**Conclusion:**

It is very clear that disease outbreaks and pandemics can impact differently to men and women. Gender always plays as an important determinants of disease occurrence and for the control and prevention of the same. The gendered perspectives of COVID-19 should not thus be neglected while devising strategies to mitigate the same. Equal participation of men and women in decision making processes in COVID-19 response is of paramount importance as both gender has different cultural, social, behavioral, sanitary and medical needs. It has been found out from the initial studies that men exhibited higher morbidity and mortality in COVID-19 infection however more robust studies are required to establish this fact. It was also observed that pandemics invite different health problems in addition to the pandemic itself and is strongly linked to gender dimension. With earlier pandemics of Zika and Ebola it has been understood that women play a forefront role in addressing the health needs of both community and their own families which needs to be properly planned to avoid over burden, wear and tear and other mental health problems. Gender based violence has been seen to be a significant player in disturbing social harmony in the communities and requires appropriate and timely approach as pandemic situations like COVID-19 with lockdown women do face lot of crisis and most of the times she has to stay with the perpetrator.

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