

KAP STUDY

Comparison of Social Distancing Practices among Genders during Covid-19 Pandemic

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ABSTRACT

Background: The rapid transmission of corona virus from symptomatic as well as non-symptomatic subjects has caused a serious health crisis globally. The Ministry of health, to curb this lethal pandemic, has imposed various standard operating procedures to minimize its spread. Amongst them, avoiding close contact with others limits the spread of Covid-19 and reduces the risk of infection. The study aimed to compare barriers and motivators of social distancing practices among undergraduate male and female students during Covid-19 pandemic.

Methods: This cross-sectional study was conducted at Liaquat National Hospital and Medical College from November 2020 until December 2020. The undergraduate medical students (n=303) participated in the study. The questionnaires regarding barriers and motivators of social distancing were uploaded via Google forms to be filled by the participants. Chi squared test was applied for analysis among the variables and *p* value ≤ 0.05 was taken statistically significant.

Results: The study showed social distancing motivators which included, social responsibility 174(57.5%), protecting sense for others in order to save them from getting sick 115(38%), and personal protection 126(41.5%). The current study reported that public lockdowns superimposed by the Government also accounted for social distancing 44(14.5%). Comparison of motivators of social distancing among gender was found to be statistically significant (*p*-value < 0.05). However, insignificant comparison of barriers was found among genders (*p*=0.151).

Conclusion: Social responsibility factor was sufficiently same in both the genders (*p*=0.01). However, self-protection was the major motivator for practicing social distancing among female participants of the study when compared with males.

Keywords: Social Distancing; Covid 19; Pandemic; Social Responsibility.

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INTRODUCTION

The first active case of corona virus reported in Wuhan, China in December, 2019, has turned into a pandemic disease with various economic and psychosocial impact and a need for behavioral pattern changes in order to prevent the spread of the disease^{1,2}. The seriousness of the impact of this pandemic and increase in the mortality rate has

forced many countries to intervene and impose restrictions such as lockdowns, closure of all educational institutes and offices, recreational centers, public places and an urge to work from home³.

Moreover, it was mandatory for the public to follow various preventive tools such as wearing facemasks, avoiding social gatherings and

disinfection by use of hand sanitizers and anti-septic solutions. In order to attain minimal interaction amongst individuals, social or physical distancing policies have come into existence for practical implications at both national and international levels⁴.

A number of studies have identified that the spread of this covid-19 virus occurs either from individuals having the symptoms and those even without the symptoms. These asymptomatic people represent as carriers of the disease⁵⁻⁷. According to researchers, transmission of this virus is much more rapid as compared to the influenza flu virus^{8,9}. In order to minimize the overwhelming burden on health care resources, various models implicated for preventing the transmission of covid-19 has supported the fact that adherence to social distancing measures can flatten the curve and can play a tremendous role in the spread of this pandemic¹⁰.

A recent survey has identified multiple barriers and motivators regarding practicing of social distancing. According to their analysis, structural barriers such as family norms, nature of work and social and religious obligations hindered most of the individuals to practice social distancing. Psychological effects such as anxiety and depression also prevented them from practicing social distancing. The factors that motivated people to practice more social distancing included self protection from covid-19 and interacting with others through social media rather than physically¹¹. The purpose of this study was to motivate people to continue practicing social distancing and reduce the spread of this corona virus infection. Thus, by identifying the barriers and comparing the motivators of social distancing practices among the gender during Covid-19 pandemic, effective adherence to social distancing can be possible.

METHODS

We conducted this cross-sectional study at Liaquat

National Hospital and Medical College Karachi, after approval by the institutional review board and research and ethics committee. Sample size was calculated using OpenEpi-sample size calculator with reported prevalence of social distancing as P= 26.9%¹², CI= 95%. The duration of study was from October 2, 2020 until December 2, 2020.

Three hundred and three undergraduate medical students of MBBS participated in the study through convenience sampling technique. Medical students of MBBS, both genders in the age range of 18-25 years filled the questionnaire regarding barriers and motivators of social distancing send to them via Google forms. A total of two months was required to complete this research project. Inclusion criteria included both male and female medical students irrespective of the medical year of MBBS of Liaquat National Hospital and Medical College willing to participate in the study, with age ≥18years or ≤25 years. Students not willing to participate or those with incomplete Google forms were excluded from the study. Statistical analysis was done by SPSS. Chi square test (X²) was applied for analysis among the variables and p value ≤0.05 was taken as statistically significant.

RESULTS

Mean age calculated was 22±2.06 years. Male and female students who participated in the study were 35% and 65% respectively. Responses to different variables regarding social distancing information, barriers and motivators presented as percentage frequencies. Around 100% of the students responded to the meaning of social distancing and 84.9% were currently practicing social distancing. 78.2 % of the responses were of the opinion that social distancing practices decreases the risk of infection and 31.4% of the students found it to be very effective for them. Student's response for the structural barriers included nature of work (33.3%), family norms (29.8%), religious obligations (23.7%) and peer pressures (13.2%) as in Figure 1.

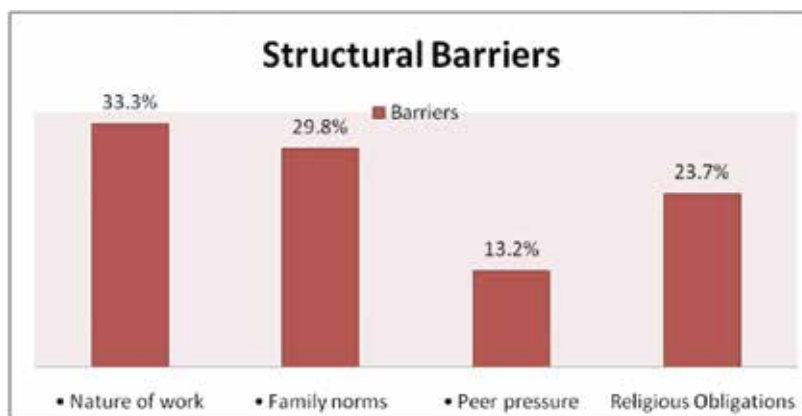


Figure 1: Structural barriers of social distancing.

Moreover, 66.4% of the participants were of the opinion that practicing social distancing was responsible for the deterioration of mental health and 58% believed that it resulted in boredom.

On comparison of motivators among gender, we found that that the males were more socially

responsible and they wanted to maintain social distance for protecting others as compared to females. However, females were more cautious for their health and implemented social distancing to protect themselves from the disease as compared to males (*p* value: 0.016) as in Table 1.

Table 1: Comparison of motivators for social distancing among gender.

Gender	Total Frequency n (%)	Motivators				p-Value
		Social responsibility n (%)	Others protection n (%)	Personal protection n (%)	Lockdown n (%)	
Males	106(35.0)	55(51.8)	32(30.1)	11(10.3)	08(7.5)	0.016*
Females	197(65.0)	60(30.4)	44(22.3)	72(36.5)	21(10.6)	

**p* value ≤ 0.05 was taken as significant, *p* value obtained by Chi square test (X^2).

Insignificant statistical difference was found among gender and structural barriers. However, males found that religious obligations were their

main barrier and according to females, family norms prevented them from practicing social distancing during the pandemic (Table 2).

Table 2: Comparison of structural barriers for social distancing among gender.

Gender	Total Frequency n (%)	Family norms n (%)	Peer pressure n (%)	Nature of work n (%)	Religious obligations n (%)	p- Value
Male	106(35.0)	26(24.3)	14(13.5)	29(27.0)	37(35.1)	0.151
Females	197(65.0)	66(32.9)	39(20.0)	60(30.6)	32(16.5)	

**p* value ≤ 0.05 was taken as significant, *p* value obtained by Chi square test (X^2).

Sense of social responsibility motivated around 57.5% of the students and that enabled them to continue practicing social distancing and ensuring

minimal spread of the disease. Other motivators included protecting others and not wanting others to get sick (38%), personal protection (41.5%) and

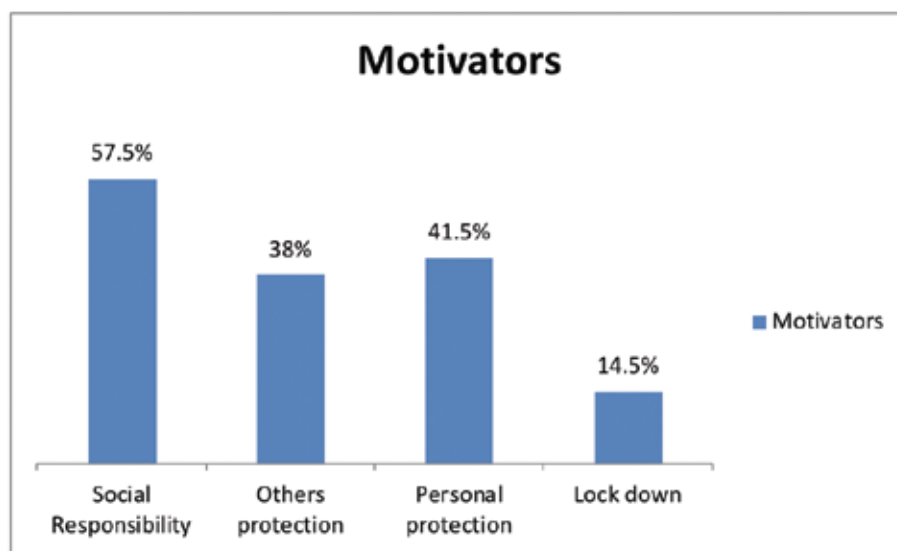


Figure 2: Motivators of social distancing.

DISCUSSION

In view of the fact that the pandemic, strict measures imposed for adherence to social distancing across the globe to restrict its rapid spread. This has led to major changes in the lifestyle of the general population, which has either facilitated or prevented them to continue practicing social distancing. Early interventions by the public health can help individuals to adhere to these preventive health behaviors in the end.

In this study, we determined various factors that prevented adherence to social distancing and those that facilitated it. Among the structural barriers, around 33.3% of the participants marked nature of work (self employed and organizational level barriers) as the key factor that prevented from practicing social distancing. This was in agreement with the study conducted by Coroiu et al. They found that organizational level barriers such as "my work cannot be done remotely" (16%) and "my workplace requires me to come into work" (11%) prevented from adherence to social distancing¹³.

Besides work nature, family norms such as marriages and condolences also accounted for 29.8% prevention from practicing of social distancing. Religious gatherings as a barrier were spotted by 23.7% of the participants. These results were supported by Rehman et al. study that depicted mass gatherings as a major barrier for effective social distancing and Escher who conducted a study in 2020 stating that how religious and social gatherings are making life harder for the governments to tackle the disease^{14,15}.

Moreover, boredom and mental health deterioration was accounted as barriers by 58% and 66.4% respectively. Wirz et al. and Coroiu et al. reported similar findings in their study. They analyzed that fear of mental health deterioration prevented most of the individuals from practicing social distancing^{11,13}. Another research conducted by Williams et al. in UK which was in concord with the current study, analyzed that most of the participants had a negative perception of social distancing and isolation during the pandemic due to its immense impact on their psychological and social well-being¹⁶.

According to self-determination theory, there are two types of motivations; intrinsic and extrinsic motivations. Intrinsic motivation relates to the notion where the individual derives pleasure from the behavior, and extrinsic motivation, where external pressures are facilitating adherence to behaviour¹⁷. Practicing social distancing at an individual level would benefit the entire society i.e.; social responsibility represented 57.5% as the most frequently endorsed motivator to engage in social

distancing in our study. This was in concordant with Coroiu et al. study, in which 84% of the participants were of the opinion "I feel a sense of responsibility to protect our community". Waselewski et al. found evidence in their survey that people believing covid-19 as the biggest threat to the society in our time had an intent to practice more social distancing^{13,18}.

In the present study, another motivator to comply with social distancing ("Not wanting others to get sick") was opted by 27.7% of the participants. This was in favor with the online experiment conducted by Lunn et al. whose findings suggested that the thought of infecting vulnerable people or large numbers of people motivated most of the participants to practice social distancing more¹⁹. Moreover, Charles et al. also addressed in their study that favorable attitude was found among individuals who strongly believed that strict compliance to social distancing measures would reduce the transmission of this deadly Covid infection²⁰.

Regarding social media as one of the motivators for social distancing, majority of the students considered WhatsApp as the major source for social contact and an inspiration for physical distancing. This was in contrast with Wirz et al. who reported Facebook as the best source to reach individuals who are engaged in social distancing¹¹. In our study, we found that in males, social responsibility was the major motivator for most of the individuals to practice social distancing. This was in contrast with the study conducted by Coroiu et al. However, females in our study opted for protecting self as the motivator to continue practicing social distancing and this too was consistent with the Coroiu et al. and Pedersen et al. study. They reported that females found self-protection as the strongest facilitator in their adherence to social distancing practice and that differed significantly on comparison with male participants^{13,21}.

Other studies by Mohammadpour et al. and Galasso et al. which was consistent with our findings, too predicted that regarding self-care behaviors, women were more compliant to social distancing practices and were more likely to observe social distancing than men^{22,23}. Paykani et al. also proposed the same findings in their study in Tehran²⁴. In addition, Oosterhoff et al. conducted a study in the United States and found that greater than 60% of young population declared that the motivator, which facilitated them best to engage in social distancing practices, was their social responsibility and not wanting others to get the disease, supported this. Keeping this in view, there is an urgent need to review our public policies and that early health care intervention would likely help in the prevention of the spread of this pandemic²⁵.

CONCLUSION

The most significant factor that motivated the male students to practice more social distancing was their social responsibility and not wanting others to get sick. Self-protection was the major motivator to continue practicing social distancing in females. There was no statistical significant difference on comparison of various structural barriers for social distancing among gender.

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CONFLICT OF INTEREST

Authors declared no conflict of interest.

ETHICS APPROVAL

Institutional Ethical Review Committee of Liaquat National hospital approved the study (Ref: App#0584-2020 LNH-ERC.)

PATIENT CONSENT

Online consents of students were obtained.

AUTHORS' CONTRIBUTION

NP had given the conception, design and write-up. SA did the data analysis and interpretation. LR drafted the article and revising it critically for important intellectual content. IA performed the data collection and literature search. KSS and MC also assisted in the data collection procedures and data entry in the SPSS.

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