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AWARENESS OF COVID-19 AND PRACTICES DURING LOCKDOWN PERIOD AMONG EDUCATED PERSONS WITH NON-SCIENCE BACKGROUND

Physiology

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ABSTRACT

This cross-sectional interview-based descriptive study was conducted by chain sampling using a pre-tested and pre-validated online questionnaire to determine the awareness of Covid-19 and practices during the lockdown period among educated persons with non-science background. The total number of respondents was 99 (81 females: 81.82% and 18 males: 18.18%). The mean age of females was 29.31 +/- 10.95 years while that for males was 34.28 +/- 10.43 years, without significant gender difference in mean age. The media were the source of information on Covid-19 for all respondents. Adequate levels of awareness, without significant gender differences, were observed regarding disease transmission, awareness of symptoms and knowledge of colour coding of zones for outbreak control. However, significant gender differences were observed in frequency of hand washing (Z=4.248; p=0.00002), frequency of leaving home for buying groceries (Z=3.668; p=0.0002) and use of social media for connecting with friends and relatives (Z=2.01; p=0.044).

KEYWORDS

Awareness, Corona virus, Covid-19, Lockdown, Preventive practices

INTRODUCTION

The infection caused by the novel coronavirus, COVID-19, which started in mainland China, [1] has widely spread all over the world. Social distancing is being used as the main prevention and control strategy to break the chain of transmission due to the non-availability of a vaccine. [2] During a lockdown, movement outside the home is curbed and intra-city and inter-city travel is restricted or prohibited. Restriction of social interaction in workplaces, places of recreation and educational institutions gives vulnerable populations a better chance of surviving the epidemic. [3] The risk factors for high levels of stress and anxiety were female gender, student status, symptoms and poor self-rated health status. [1] Though this pandemic has disrupted the life, economy and health of people, few researchers [4, 5] have studied the psychological impact of this pandemic. Studies on health care related persons have reported high levels of knowledge and awareness regarding Covid-19. However, studies conducted in India [6] and China [7, 8] have reported that the practice scores are affected by gender. The objective of this study was to determine the awareness of Covid-19 and practices during the lockdown period among educated persons with non-science background.

MATERIALS AND METHODS

This cross-sectional interview-based descriptive study was conducted using the chain sampling technique in June 2019 during the corona virus epidemic lockdown. A pre-tested and pre-validated questionnaire was administered via Google forms to persons aged 18+ years, of either gender, who were doing or had completed graduation in non-science courses. Informed consent was taken on the Google forms. The data were adapted to Microsoft Excel spreadsheet (Microsoft Corporation, Redmond, WA, USA) and analyzed using SPSS statistical software Windows Version 25.0 (IBM Corporation, Armonk, NY, USA). The percentage of responses and the standard error of difference between two sample proportions were calculated. For continuous data, the standard error of difference between two means was calculated. 95% Confidence interval (CI) was stated as: [Mean-(1.96)*Standard Error)] - [Mean+(1.96)* Standard Error)]. The statistical significance was determined at $p<0.05$.

RESULTS AND DISCUSSION

The total number of respondents was 99 (81 females: 81.82% and 18 males: 18.18%).

Demographics:

The mean age of females was 29.31 +/- 10.95 years (95% CI: 26.92 – 31.69 years) while that for males was 34.28 +/- 10.43 years (95% CI: 29.46 – 39.10 years). The gender difference in mean age was not statistically significant (Z=1.811; p=0.070). The maximum age and the minimum age of female and male respondents were identical while the first quartile, median and third quartile of the age distribution was higher for males (Fig-1). 31 (38.27%) females and 6 (33.33%) males had done their schooling in rural areas. The respondents were doing or had completed graduation in Arts (50.62% females and 44.44% males), Commerce (17.28% females and 44.44% males) and Law (32.10% females and 11.11% males). The gender difference in the chosen field of specialization in education was significant (Z=2.507; p=0.012).

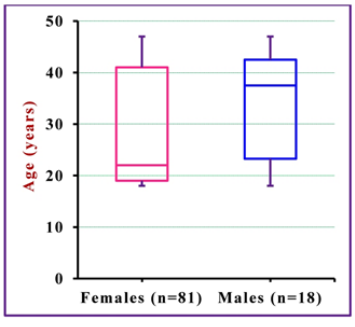

Fig-1: Box Plot Of Age Distribution Of Respondents

Awareness:

The media were the source of information on Covid-19 for all (100%) female and male respondents. The gender differences in knowledge of transmission of the disease were not significant – [a] transmission through air, droplets and by contact: 22 (27.16%) females and 4 (22.22%) males; [b] through droplets and by contact: 47 (58.02%) females and 12 (66.67%) males; [c] by contact: 12 (14.81%) females and 2 (11.11%) males. While breathlessness was stated as a manifestation by all (100%) female and male respondents; Fever was stated by 67 (82.72%) females and 17 (94.44%) males; fatigue by 35 (43.21%) females and 10 (55.56%) males; and sore throat by 47 (58.02%) females and 12 (66.67%) males; with no significant gender differences. There were no significant gender difference in – [a] knowledge of colour coding of zones for outbreak control - 64 (79.01%) and 14 (77.78%) amongst females and males, respectively and [b] awareness of existence of laboratory tests for detecting Covid-19 infection and availability of medications.

Preventive Practices:

Without significant gender difference, 79 (97.53%) females and 17 (94.44%) males revealed that they strictly adhered to wearing of face masks whenever they stepped outside their homes. The mean

frequency of hand washing for females was 6.99 +/- 2.26 times per day (95% CI: 6.50 – 7.48 times per day) while that for males was 8.89 +/- 1.57 times per day (95% CI: 8.16 – 9.61 times per day), exhibiting significant gender difference (Z=4.248; p=0.00002). The minimum hand washing frequency for female and male respondents was identical while the first quartile, median, third quartile and maximum frequency of hand washing was higher for males (Fig-2). All washable purchases were disinfected using soap and water by 52 (64.20%) females and 10 (55.56%) males and by use of sanitizer by 12 (14.81%) females and 4 (22.22%) males. However, 17 (20.99%) females and 4 (22.22%) males did not disinfect their purchased items. 36 (44.44%) females and 7 (38.89%) males were taking various supplements to strengthen their immunity, while 64 (79.01%) females and 15 (83.33%) males were willing to get vaccinated as and when a vaccine becomes available.

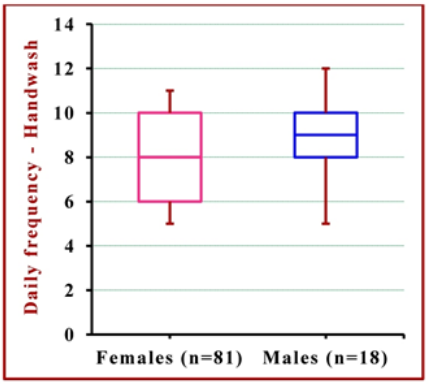

Fig-2: Box Plot Showing Daily Hand Washing Frequency

Activities During Lockdown:

During the lockdown, the mean frequency of leaving home to buy groceries by females was 2.69 +/- 1.06 times per week (95% CI: 2.46 – 2.92 times per week) while that for males was 1.83 +/- 0.86 times per week (95% CI: 1.44 – 2.23 times per week), exhibiting significant gender difference (Z=3.668; p=0.0002). 62 (76.54%) females and 14 (77.78%) males reported indulging in various combinations of exercises – yoga: 18 (22.22%) females and 5 (27.78%) males; aerobics: 7 (8.64%) females and 2 (11.11%) males; strength exercises: 30 (37.04%) females and 7 (38.89%) males and breathing exercises: 44 (54.32%) females and 9 (50.07%) males. The mean frequency of physical exercise was 3.99 +/- 2.67 days per week (95% CI: 3.14 – 4.57 days per week) and 4.06 +/- 2.65 days per week (95% CI: 2.83 – 5.28 days per week) for females and males, respectively, without significant gender difference (Z=0.101; p=0.919). 21 (25.93%) females and 6 (33.33%) males reported absence of any difference in timings and quantities of food consumption. Likewise, 44 (54.32%) females and 8 (44.44%) males reported no change in duration of sleep. However, the remaining respondents reported changes in meal timings, increased food consumption, increased duration of sleep without statistically significant gender differences. In an Italy-based online survey, young respondents of either gender reported increased the usage of digital media near bedtime and spending more time in bed but with reduced quality of sleep. [9] Young adults are apt to be heavy digital users and at high risk for sleep disturbance. [10]

Other effects:

73 (90.12%) females and 17 (94.44%) males reported improved bonding with family members and relatives due to the lockdown. In another study, female respondents who had indoor hobbies used these hobbies as coping mechanism during the lockdown and more female respondents felt that the lockdown had significantly improved emotional bonding with friends and family. [11]

On the other hand, 40 (49.38%) females and 8 (44.44%) males felt frustrated; while 10 (12.35%) females and 6 (33.33%) males reported feeling anxious, exhibiting significant gender difference. (Z=2.188; p=0.028). The remaining respondents reported absence of any psychological effect. Another study has reported that frustration and yearning for active life of the pre-lockdown period was more frequent among male respondents. [3]

Though useful in prolonging the doubling time of cases [12] and in reducing transmission of infections, lockdowns also cause reduced access to family, friends, and other social support systems resulting in loneliness, anxiety and depression. [13] Lockdowns and disease containment measures may be detrimental to the mental health of starving and homeless people, who may associate compulsory hospitalization with imprisonment. [14]

76 (93.83%) females and 18 (100.0%) males remained connected with friends and relatives through WhatsApp. There were significant gender differences (Z=2.01; p=0.044) in use of phone calls and of social media (Facebook, GoogleMeet, Zoom, Instagram). 25 (30.86%) females and 12 (66.67%) males had downloaded Arogyasetu App on their mobile phones, exhibiting significant gender difference (Z=2.84; p=0.004).

Helpful guidelines to reduce stress during the lockdown include – maintaining a daily routine, obtaining news only from credible news sources, focusing only on controllable things, finding activities to keep oneself busy, [15] staying connected with family and relatives via technology and taking prescribed medication (where applicable). [3, 16]

CONCLUSION

The awareness of Covid-19 was high, without significant gender difference, among the respondents who were educated persons with non-science background. Significant gender difference was observed in frequency of hand washing, stepping out of the home for buying groceries, use of phone calls and choice of social media to connect with friends and relatives.

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