

Attitude Of Family Members Of Health Care Workers During Covid- 19 - A Questionnaire Survey

Harita Ravikumar¹, V. Vishnu Priya², K. R. Don³, R. Gayathri⁴

¹Saveetha Dental College, Saveetha Institute of Medical & Technical Sciences, Saveetha University, Chennai- 600077, India.

²Department of Biochemistry, Saveetha Dental College, Saveetha Institute of Medical & Technical Sciences, Saveetha University, Chennai- 600077, India.

³Department of Oral and Maxillofacial Pathology, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences (SIMATS), Saveetha University, Chennai -77, India

⁴Department of Biochemistry, Saveetha Dental College and Hospitals, Saveetha Institute of Medical & Technical Sciences, Saveetha University, Chennai- 600077, India.

¹151901080.sdc@saveetha.com ²vishnupriya@saveetha.com ³donkr.sdc@saveetha.com
⁴gayathri.sdc@saveetha.com

ABSTRACT: Objective: Coronavirus is a retrovirus first found in Wuhan, China. The airborne spread of the coronavirus has created a pandemic all across the globe and various had implemented social distancing and quarantine periods to limit the spread. Doctors nurses and other social helpers who deliver services to the sick and ailing people either directly or indirectly fall under the category of healthcare workers. Healthcare workers are more vulnerable to coronavirus disease. Medical workers are unwillingly quarantined in the hospitals where they do not have another choice and conventional protection such as masks and gloves are not completely effective. This pandemic had a major impact as there was decline in the financial and social conditions. The aim of the analysis was to assess the attitude of family members of healthcare workers during COVID-19.

Materials and method: The present study population consisted of family members of healthcare workers in the South Indian population through an online Setting. The study design was a questionnaire based cross sectional study, conducted in 2020 and approval was obtained from the scientific review board. Self administered questionnaire was prepared pertaining to the topic and circulated through an online google forms link.

Statistical analysis: The results obtained from the survey were analysed using SPSS version 22. The statistical analysis was descriptive statistics to summarise the demographic data and chi square analysis to summarise the survey data.

Result: The survey found that the majority had healthcare workers as their family members and they had a positive attitude towards their work and felt proud. The family members were sometimes forced to follow hygiene measures and were regularly tested for

the presence of coronavirus. At the same time the healthcare workers were also under physical and mental stress which in turn affected their family members.

Conclusion: Family members' attitudes have an influence on healthcare workers who work everyday in this pandemic situation. Awareness in relation to maintenance of hygiene among family members healthcare workers needed to be enhanced.

KEYWORDS: COVID-19, healthcare workers, pandemic.

1. INTRODUCTION:

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2) is the newly discovered ribonucleic acid that was identified from the people in Wuhan, China who had very different kinds of pneumonia. It mainly causes the respiratory and digestive tract symptoms ¹. When an outbreak occurs, healthcare workers are required to work for longer hours and they tend to have a significant pressure where most of the time they have inadequate knowledge about the current situation, they maintain closeness with ill- patients and they are vulnerable ². Health care workers tend to develop psychological problems, anxiety irritability and much more while they are at work. Health care workers didn't want to worry their family and they were afraid to bring the virus to their home. Staff faced problems when they were quarantined at the hospital ³. The further anxiety level increased when the infection raised and the transmission of person to person through aerosol, contact closely⁴. Sanitation and social distancing is very much required to cope up with the coronavirus ⁵. This COVID-19 pandemic had gained its dark side of the history of the world since it had influenced so many bad effects of sudden onset speed of global transmission. Decline in social, economic and financial status ⁶. The World Health Organisation had classified India as local transmission. All visas to other countries have been cancelled by the World Health Organisation ⁷. Health care workers [HCW] face high risk of exposing to the infectious disease ⁸

Based on the previous studies done, usage of conventional protection methods such as masks, provides insufficient protection. Importance of being a supportive frontline worker through this pandemic has also been mentioned ⁸. Adverse psychological reactions among the healthcare workers, they were also scared that they might be a contagion and infection to their family members, friends and colleagues ⁹. It was seen that they also had stress, anxiety and depression symptoms and psychological implication ¹⁰.

Previous studies on metabolic diseases [^{11, 12, 13}], cancer biology [^{14, 15, 16, 17, 18, 19}], role of natural products in health and diseases [^{20, 21, 22, 23, 24, 25}] enriched my research passion. This made me choose an epidemiological survey which is necessary during this quarantine lockdown. This study focuses mainly on the importance of health care workers and to understand the balance between family and work. They are in demand of their work and their knowledge on medicine. Change in attitude of their family members and their sanitation of society. The aim of this study was to assess the attitude of family members of health care workers during COVID-19.

2. MATERIALS AND METHODS:

A prospective observational study was conducted among the family members of the healthcare workers which was economical, easy to create, wide reach, involvement of heterogeneous population and gathers large data and quick interpretation can be done. The approval for the research was obtained from the Scientific Review Board of Saveetha Dental College. A self administered questionnaire was prepared pertaining to the topic and was circulation among 100 participants through google form links online. The results were obtained and converted to excel and analysed. The statistical test used as a descriptive statistics and statistical tool was SPSS version 22.

3. RESULTS AND DISCUSSION:

The data was collected and analysed and it was found that most of the family members had healthcare workers in their family. They feel that they are forced to take good care and many healthcare workers isolated themselves from other family members. Most of the family members feel proud when they go to work.

It was seen that the majority of the family members who participated was around the age group 19-35 years (Figure 1). Figure 2 shows the gender of the participants where 68.32% were male and 31.68% were female. Figure 3 depicts a family member as a healthcare worker where 65.35% people had at least one healthcare worker in their family whereas 34.65% people didn't have family members as healthcare workers. It is observed in figure 4 that 65.35% participants feel protected when they are around them and 34.65% feel that they don't feel safe around the healthcare workers. Figure 5 shows that 69.31% of the participants are being forced to take care of themselves and 30.69% people don't feel that they are being forced.

It is seen in Figure 6 that safety measures followed by the family members, 73.27% people agree that they follow proper safety measures 26.73% people don't follow proper safety measures. Figure 7 shows the isolation of family members where 75.25% people feel that it is better to be isolated from the other family members and 24.75% didn't feel the same. Figure 8 shows that maintaining closeness with healthcare workers at home. 75.26% people feel that it's fine to maintain closeness and 25.74% don't feel safe to maintain closeness and 25.74% don't feel safe to maintain closeness. Figure 9 shows the maintenance of proper hygiene by the healthcare worker. 71.29% people believe that they maintain proper hygiene and 28.71% people think that they don't follow proper hygiene methods.

Figure 10 shows that 73.27% of people respect their work as a citizen. 26.73% of people don't respect their work as a citizen. Figure 11 shows the attitude of family members when they go for work and 8.91% hesitant, 34.65% feel scared and 56.44% feel proud when they go for work. Figure 12 depicts that the family members feel that 77.23% people feel that healthcare workers are physically/ mentally stressed 22.77% people feel that they are not physically/ mentally stressed. Figure 13 shows the requirement of regular test for coronavirus and 73.27% people feel the requirement and 26.73% don't feel the requirement. Figure 14 shows that 78.22% people feel that there is he/she being isolated from other family members

and 21.78% people feel that they don't isolate themselves. Figure 16 shows 75.25% people feel that they cope up with their physical and mental stress and 24.75% don't cope with mental and physical stress. Figure 17 shows that duration of working hours 18.81% were on call duty, 34.64% work for less than 2 hours and majority 46.53% work for 2-6 hours.

Association analysis was also done between age and family member as healthcare worker (Figure 18), them being forced to take care of themselves (Figure 19), safety measures followed when their family member is around (Figure 20), whether men or women are more prone to coronavirus (Figure 21), family member's steps to overcome stress (Figure 22) and family member's working hours (Figure 23).

Healthcare workers were 82.3% and 79.8% had a positive attitude of risk of personnel and family members are affected²⁶. 85% healthcare workers feared that they might be affected by self infection²⁷. 88% people used several disinfected methods several times a day and greater social distancing distancing, disinfecting and hoarding and news monitoring^{21,28}.

The limitation of this study was that there were less sample size, and regionalism where the study was conducted only in Chennai. There was a homogeneous population. The future scope of this study was that requirement of betterment of attitude which improves relationship among family members, better social relationship leads to healthier society. Healthcare workers had physical and mental stress where the positive attitude of family members helped to cope them up with stress and bring a positive attitude.

4. CONCLUSION

Based on the survey, it was found that the majority of the participants had healthcare workers as their family members and they had a positive attitude towards their work and felt proud. Family members' attitudes have an influence on healthcare workers who work everyday in this pandemic situation.

Conflict Of Interest

No conflict of interest declared.

Author's Contribution

Harita Ravikumar: Literature search, data collection, analysis V.Vishnu Priya: Data verification, manuscript drafting

K.R. Don: Data verification, manuscript drafting

R. Gayathri: Data verification, manuscript drafting

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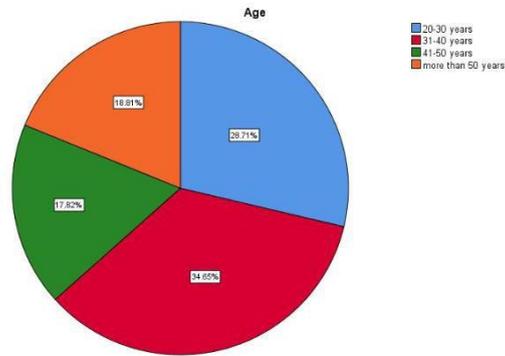


Figure 1: Pie chart showing the percentage distribution of participants based on age. About 28.71% were in the age group 20-30 years (blue), 34.65% were in the age group 31-40 years (red), 17.82% were in the age group 41-50 years (green) and 18.81% were more than 50 years (orange)

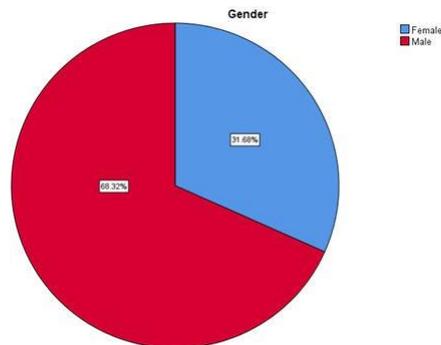


Figure 2: Pie chart showing the percentage distribution of participants based on gender. 68.32% were males (red) and 31.68% were females (blue).

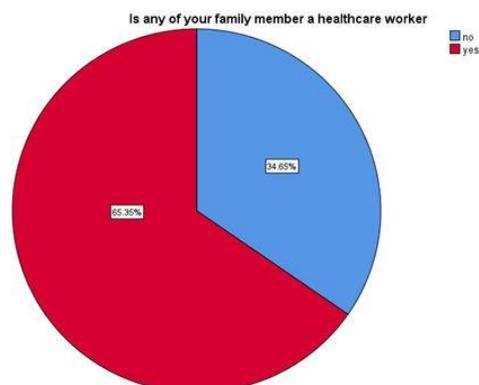


Figure 3: Pie chart showing the percentage distribution of responses on having family members as a healthcare worker. 65.35% have a family member as a health care worker (red) and 34.65% don't have a family member who is a healthcare worker (blue).

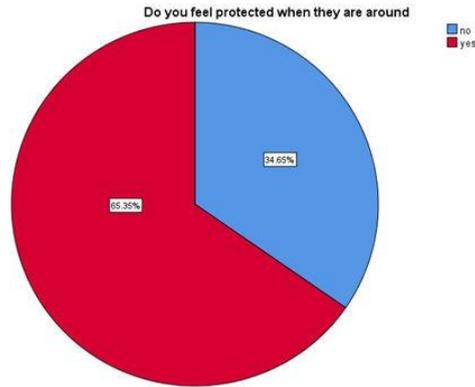
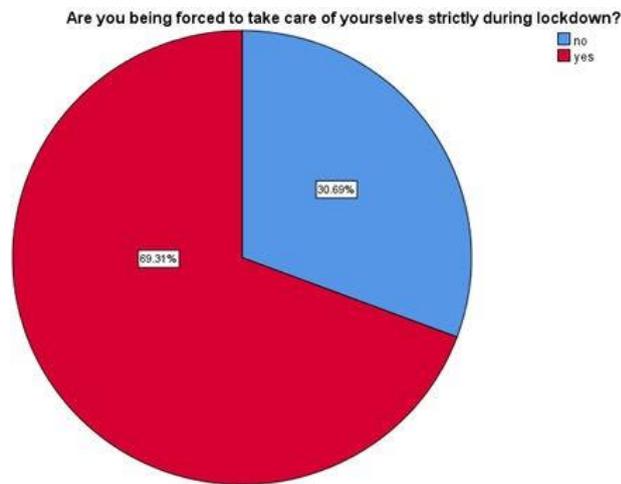


Figure 4: Pie chart showing the percentage distribution of responses on their feeling when the family member who is a healthcare worker is around. 65.35% feel protected when their family member who is a healthcare worker is around (red) and 34.65% don't feel protected



(blue).

Figure 5: Pie chart showing the percentage distribution of responses on their feeling of being forced by healthcare workers. 69.31% feel forced to take care of themselves (red) and 30.69% don't feel forced (blue).

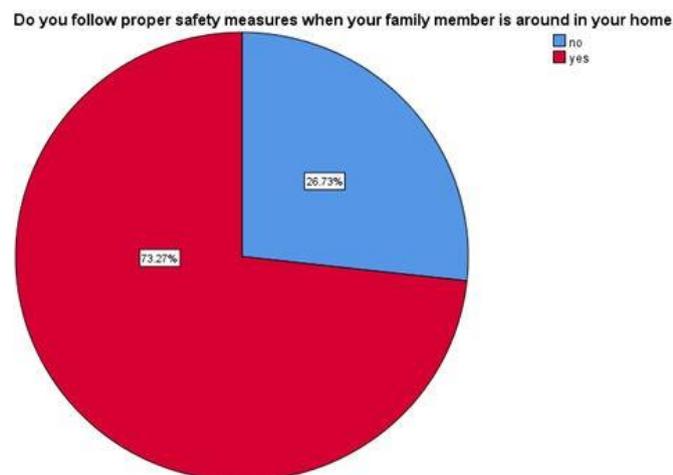


Figure 6: Pie chart showing the percentage distribution of responses on the safety measures followed by family members. 73.27% follow proper safety measures (red) and 26.73% don't

follow proper safety measures(blue).

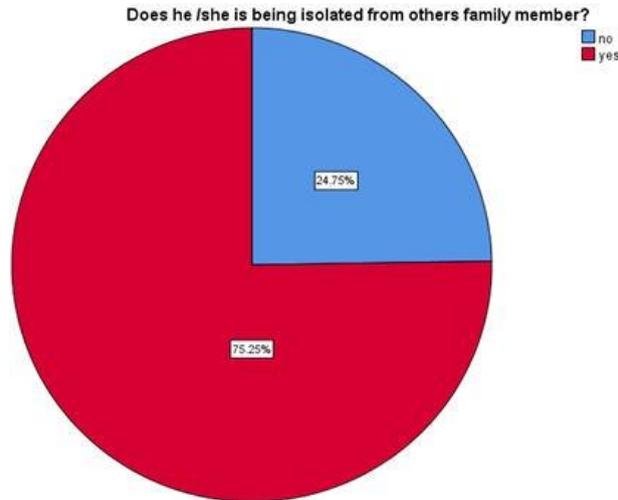


Figure 7: Pie chart showing the percentage distribution of responses on family members who are healthcare workers is being isolated by family members. 75.25% feel that the family member who is a healthcare worker is being isolated from the other family member (red) and 24.75% don't feel the same (blue).

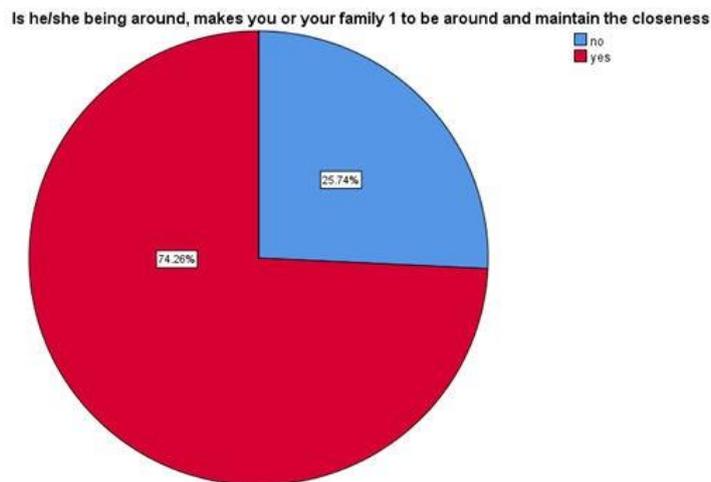


Figure.8: Pie chart showing the percentage distribution of responses on the maintenance of closeness with healthcare workers at home. 74.26% maintain closeness with the healthcare worker who is a family member (red) and 25.74% don't maintain closeness.

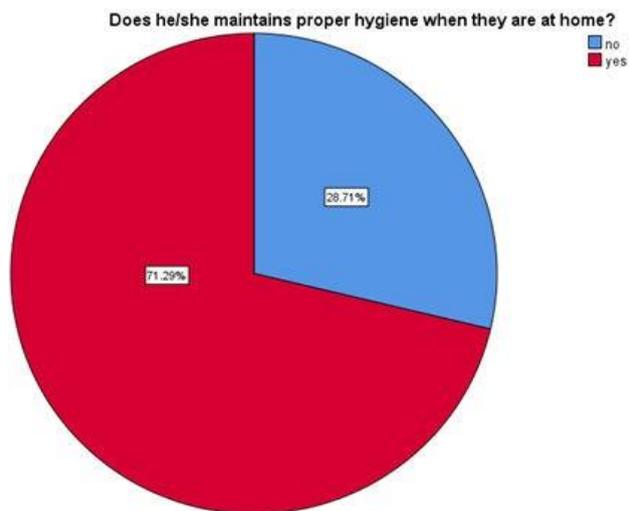


Figure 9: Pie chart showing the percentage distribution of responses on analysis of maintenance of proper hygiene by healthcare workers. 71.29% maintain proper hygiene at home (red) whereas 26.71% don't maintain proper hygiene.

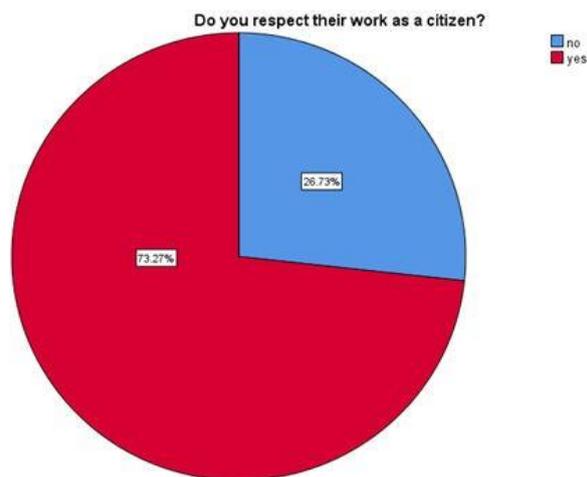


Figure 10: Pie chart showing the percentage distribution of responses on analysis of respect towards family members when they work. 73.27% respect their family member who is a healthcare worker when they go to work (red) and 26.73% have no respect towards them.

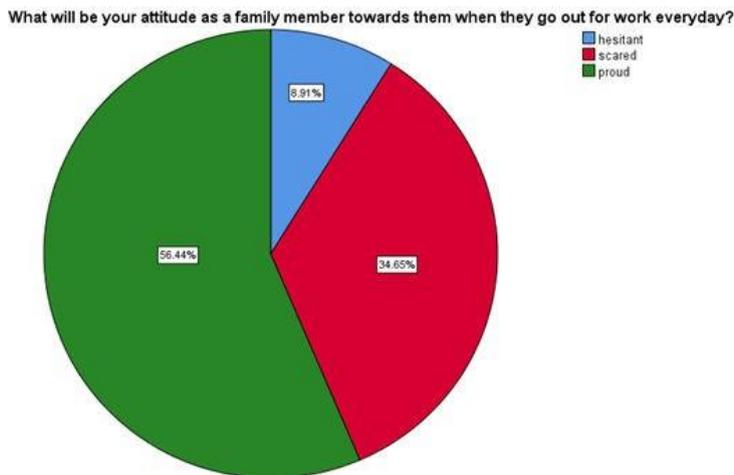


Figure 11: Pie chart showing the percentage distribution of responses on analysis of the attitude of family members when they go for work. 56.44% feel proud when they go to work (green), 34.65% feel scared (red) and 6.91% feel hesitant when they work(blue).

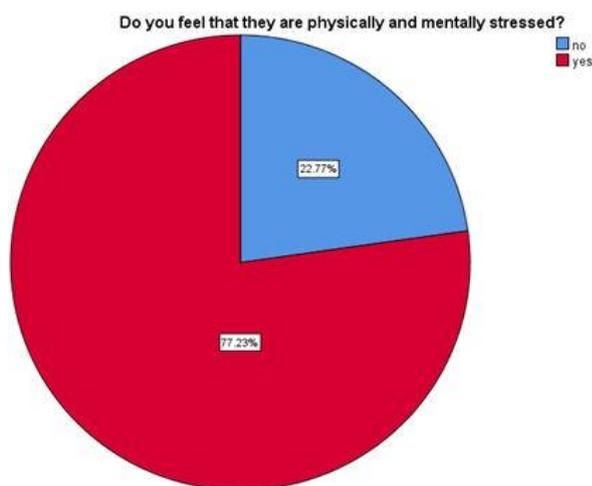


Figure.12: Pie chart showing the percentage distribution of responses on analysis of physical and mental stress of healthcare workers. 77.23% feel that their family member who is a healthcare worker undergoes physical and mental stress (red) and 22.77% feel they don't have any stress (blue).

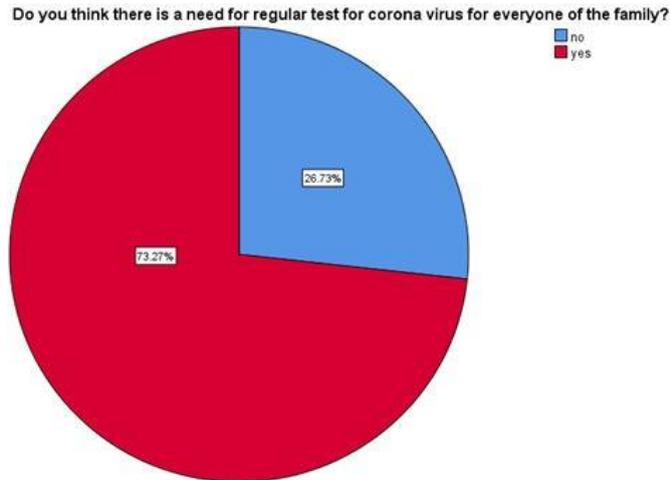


Figure 13: Pie chart showing the response percentage distribution of responses on analysis of requirement of regular test for coronavirus. 73.27% preferred the requirement of regular tests for everyone in their family for coronavirus (red) and 26.73% didn't prefer (blue).

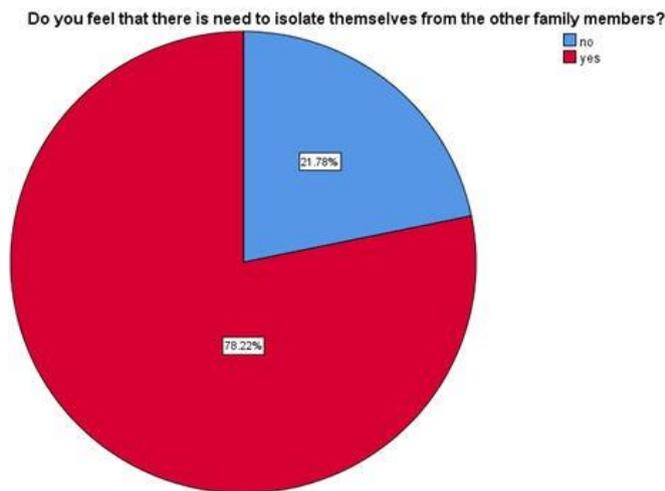


Figure 14: Pie chart showing the percentage distribution of responses on analysis of isolation of healthcare workers from family members. 78.22% preferred isolation of healthcare workers in their family (red) and 21.78% did not prefer (blue).

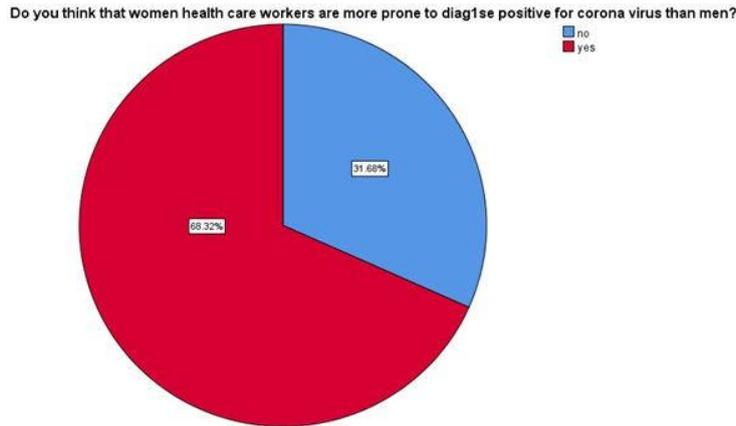


Figure.15: Pie chart showing the percentage distribution of responses on analysis of comparison between men and women, who are prone to coronavirus. 68.32% felt that women are more prone to coronavirus than men (red) and 31.68% didn't feel (blue).

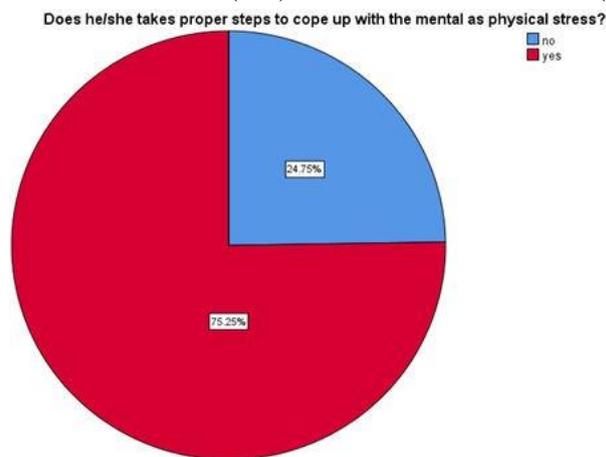
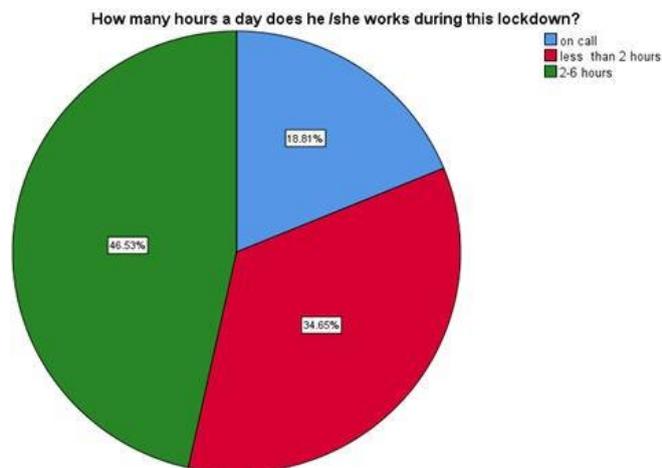


Figure.16: Pie chart showing the percentage distribution of responses on analysis of the attitude of healthcare workers on managing physical and mental stress. 75.25% feel that their family members take steps to cope up with stress (red) and 24.75% didn't feel that same



(blue).

Figure.17: Pie chart showing the percentage distribution of responses on analysis of duration of work done by healthcare workers. 46.53% respondents' family members who are healthcare workers work for 2-6 hours, 34.65% responded less than 2 hours and 18.81%

responded that they were on call.

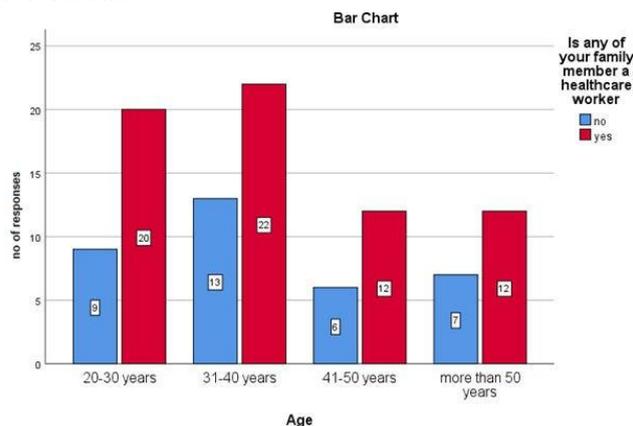


Figure 18: Bar graph showing the association between different age groups and their responses to family members as health care workers. X-axis represents the different age groups of the participants and y-axis represents the number of responses. Blue denoted that they do not have a healthcare worker as their family member and red denotes that any one of their family members is a healthcare worker. Respondents of the age group 31-40 years were more aware about their family. Most of them among all age groups have mentioned that any one of their family members are healthcare workers. Age did not influence this factor. Chi-square value: 0.318, p-value=0.957 ($p > 0.05$ - statistically not significant).

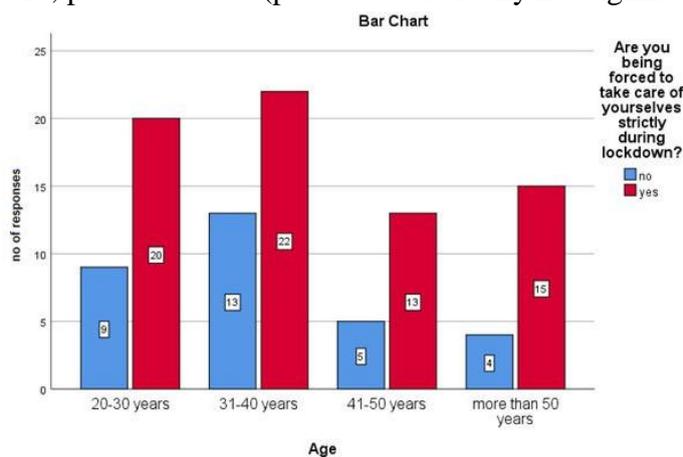


Figure 19: Bar graph showing the association between different age groups and responses to them being forced to take care of themselves. X-axis represents the different age groups of the participants and y-axis represents the number of responses. Red colour denotes that people felt that they were forced to take care of themselves and blue denotes that they are not being forced. Respondents belonging to the age group 31-40 years were more aware that they were being forced to take care of themselves. Most of them among all age groups felt they were being forced to take care of themselves strictly during lockdown. Age did not influence this factor. Chi-square value: 1.588, p-value=0.662 ($p > 0.05$ - indicating statistically not significant).

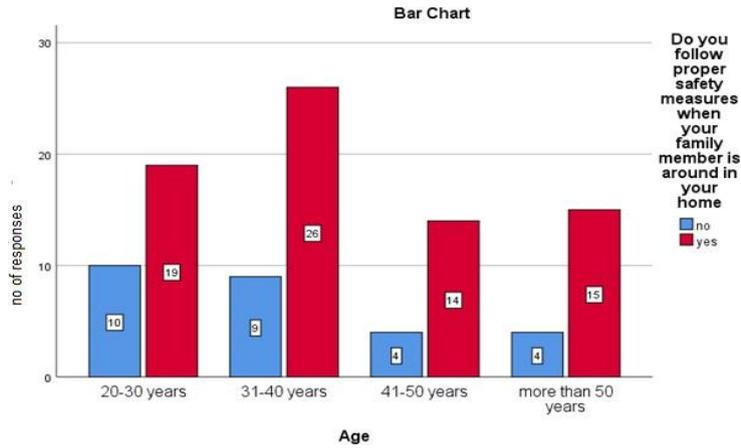


Figure 20: Bar graph showing the association between different age groups and their responses to safety measures followed when their family member is around. X-axis represents the different age groups of the participants and y-axis represents the number of responses. Red denoted that the respondents followed proper safety measures when healthcare workers were at home and blue denotes that they do not follow.

Respondents of the age group 31-40 years had more knowledge that they follow proper safety measures. Most of them, among all age groups, followed proper safety measures when healthcare workers were around. Age did not influence this factor. Chi-square value:1.408 showing $p=0.704$ ($p>0.05$ - indicating statistically not significant).

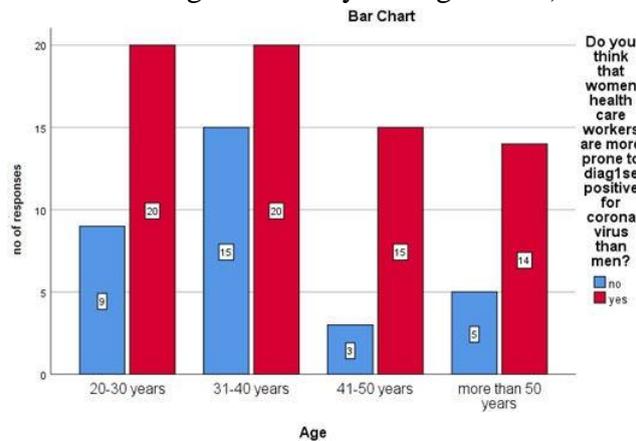


Figure 21: Bar graph showing the association between different age groups and whether men or women are more prone to coronavirus. X-axis represents the different age groups of the participants and y-axis represents the number of responses. Red denotes women were more prone to coronavirus than men and blue denotes that women were not prone to coronavirus than men. Respondents of the age group 20-30 years and 31-40 years were more aware that women were more prone to coronavirus than men. Among all age groups, most of them felt that women were more prone to coronavirus than men. Age did not influence this factor. Chi-square value:4.153 p-value=0.245 ($p>0.05$ indicating statistically not significant).

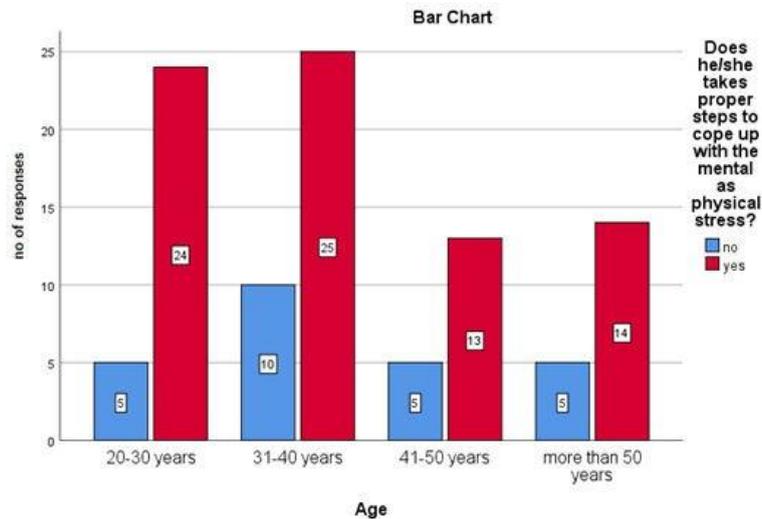


Figure 22: Bar graph showing the association between different age groups and their responses to family member's steps to overcome stress . X-axis represents the different age groups of the participants and y- axis represents the number of responses. Blue colour denotes that the healthcare workers do not manage their stress and red denotes that they manage stress. Respondents of the age group 31-40 years were more aware that healthcare workers took steps to manage their stress. Among all age groups, most of them felt that healthcare workers take proper steps to manage their stress. Age did not influence this factor. Chi- square value:1.226 , p-value=0.737 ($p > 0.05$ - indicating statistically not significant).

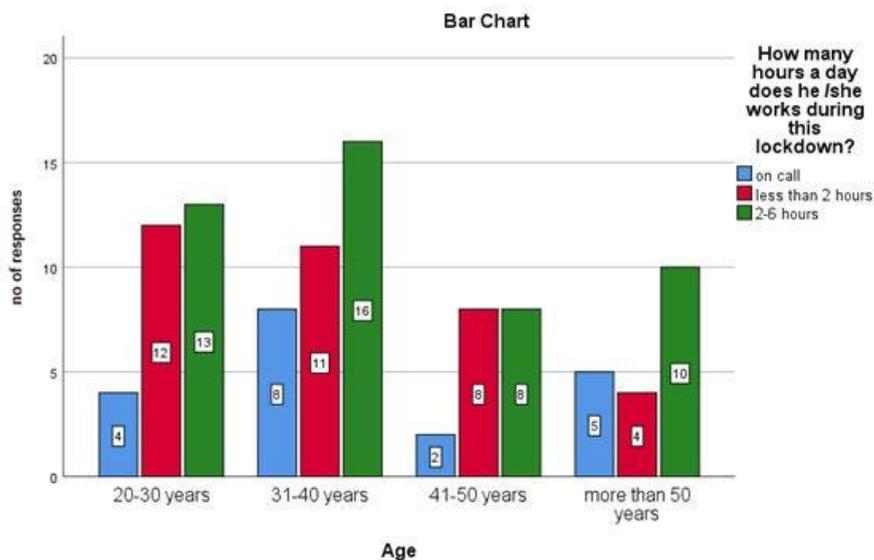


Figure 23: Bar graph showing the association between different age groups and responses on their family member's working hours. X-axis represents the different age groups of the participants and y-axis represents the number of responses. Blue colour represents healthcare workers were on call, red colour denotes they work less than 2 hours and green denotes they work 2-6 hours. Respondents of the age group 31-40 years had better attitudes toward their family members (healthcare worker) when they go to work. Among all age groups, most of their family members who are healthcare workers work for 2-6 hours. Age did not influence this factor. Chi-square value:4.017, p-value=0.674 ($p > 0.05$ - indicating statistically insignificant).