INFLUENCE OF COVID-19 ON QUALITY OF LIFE AMONG NURSES TREATING COVID-19 IN TAMILNADU

Running title: Influence of COVID-19 among nurses.

ABSTRACT:

BACKGROUND:

Covid-19 is caused by the novel severe acute respiratory syndrome (SARS- COV- 2). The coronavirus is transmitted by different ways, including contact transmission, direct transmission and aerosol transmission. In health care professions the largest and diverse forces are the nurses. Nurses are important in managing the health emergency management crisis because of their vital link between the health care professionals and the patients. The Covid-19 pandemic has placed health care professionals (HCPs) in high stressful circumstances due to increase in patients. Normal life of nurses would be unprecedented disruption and high risk of exposure. The aim of the study is to investigate the quality of life among nurses treating patients during the covid-19 pandemic.

MATERIALS AND METHODS:

The study setting was an online questionnaire survey among nurses in Tamilnadu. This study was conducted in February 2021. There are 127 participants in this survey. The answers regarding how they feel treating COVID-19 Patients, kind of support, impact and quality of life were collected. The data were analysed statistically using SPSS software. The results and observations were recorded in a pie chart. The chi square test and correlation between genders was done and represented in the bar chart. $p<0.05$ was statistically significant.

RESULTS:

More than 50% of the nurses responded that their quality of life was good. 43.31% Females have a good quality of life. 78% of the nurses replied that they have both physical and mental impact treating COVID-19 Patients. The association between the gender and quality of life of nurses

was found with the help of chi square test p=0.383 (p >0.05) and hence it was statistically not significant.

CONCLUSION: The present study found that the majority of nurses 54.33% have a good quality of life.The officials in the health care system should improve the nurses' working conditions, strategies and their quality of work life, so that nurses will perform their duties properly.

KEYWORDS: Nurses, Covid -19, quality of life, health care professionals, SARS-COV-2, innovative techniques.

INTRODUCTION

Covid-19 is caused by the novel severe acute respiratory syndrome (SARS-COV-2). The coronavirus in humans will cause infection in the respiratory tract that ranges from mild to lethal (1). The coronavirus is transmitted by different ways: contact transmission, direct transmission and aerosol transmission. In December 2019, an unknown case was admitted in Wuhan China with pneumonia (2). In India on 30 January 2020, the first laboratory confirmed case of COVID -19 was reported. After that till now there is an exponential growth in cases. Many government and public health policies that were developed to decrease the spread of coronavirus and had adopted a population health approach (3).

Nurses played the most important role in preventing the infection, controlling the infection, Isolation, contamination and public health (4). This COVID -19 pandemic caused stressful circumstances among the health care professionals (HCPs) due to the increase of patients' load (5). In the 2003 SARS (severe acute respiratory syndrome) outbreak in China, one third of fatalities were health care professionals (6).

The front line workers feel a higher level of work intensity and get easily tired due to wearing protective equipment causing some inconvenience to breathing, drinking water and vision. Over 200 health care professionals including doctors and nurses have been reported in Tamilnadu with covid-19. The WHO has stated that covid-19 pandemic has caused high levels of anxiety, stress,

and depression (7). However, covid-19 pandemic hits in India affected the mental health status of Indian health care professionals. The experiences from our previous studies (8) have led us to focus on the current topic. Our team has extensive knowledge and research experience that has translated into high quality publications (9–28). Therefore the aim of our study was to investigate the quality of life among nurses treating patients during the Covid-19 pandemic.

MATERIALS AND METHODS:

The study setting was done through an online questionnaire survey among nurses in Tamilnadu. The advantage of online surveys is that it is time saving. There are 127 participants in this survey. This study was conducted in the mid month of February 2021. The lists of independent variables are age and gender and the dependent variable is quality of life among nurses. The survey included questions like age, gender, experience, satisfaction after treating, kind of support from others and friends, enough energy for everyday life, ability to perform daily life activities, fear of transmission, opportunity for leisure activities, feel safe, quality of life, safety measures and kind of impact they face. The survey was conducted through online Google forms and shared in a whatsapp groups among nurses. The response was transferred to MS Excel. The data were analyzed statistically using SPSS software. The results were recorded in the form of pie charts. The chi square test and correlation between gender was done and represented in the bar charts (P value less than 0.05 is statistically significant).

RESULTS :

It was found that the majority of the nurses age between 20-30. In this 80.31% nurses are female and 19.69% nurses are male. Majority of nurses were married (63.41%). Among this 36.59% nurses' experience was 3years. 58.27% nurses satisfied with treating COVID-19 Patients (Figure 1). Nurses of 49.61% have moderate levels of energy to do their everyday life activities. 54.33% of nurses replied that they have a good quality of life (Figure 2). 43.90% nurses have a moderate level of support from others and 55.26% nurses responded that they were satisfied with the kind of support from friends. 56.91% nurses were satisfied and they have the ability to perform daily life activities. 47.15% nurses have moderate levels of fear of transmission of disease to family members. 61.79% of nurses replied that they have little time for leisure activity. 43.05% felt that they were safe. Most of the nurses (74.80%) responded that they have enough safety measures.

77.95% nurses replied that they impacted both physically as well as mentally (Figure 3). The association between the gender and quality of life of nurses was found with the help of chi square test p=0.383 (p > 0.05) and hence it was statistically not significant (Figure 4). Similarly the association between the gender and ability to perform daily life activities was determined with the help of chi square test p=0.511 (p > 0.05) and hence it was statistically not significant (Figure 5).

GRAPHS:

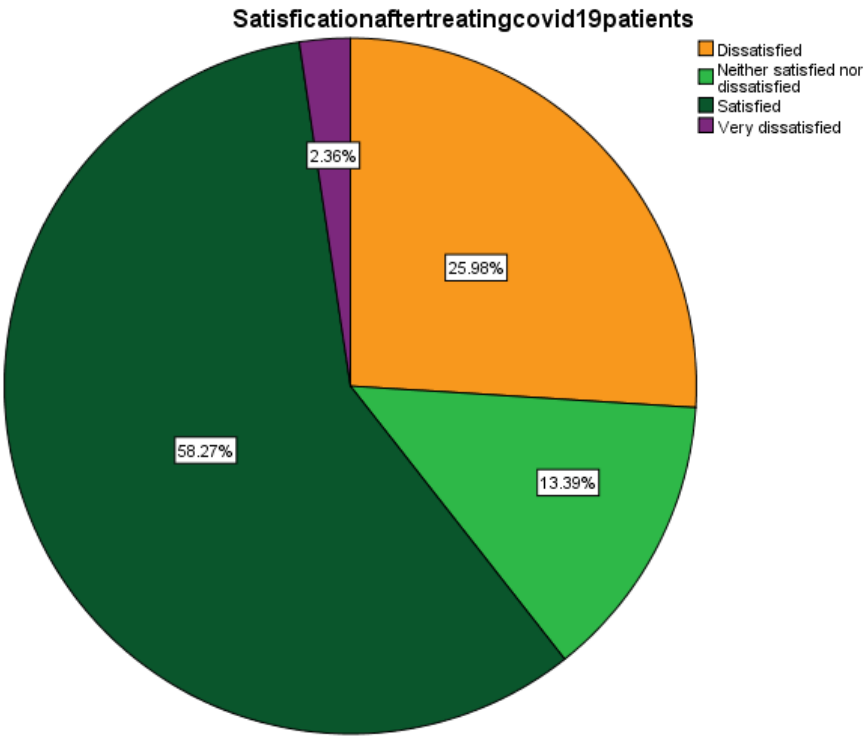

Figure 1: This pie chart represents the work satisfaction of nurses treating COVID19 patients. Orange colour denotes dissatisfied,light green denotes neither satisfied nor dissatisfied, dark green denotes satisfied and Dark magenta denotes very dissatisfied. Most of the nurses (58.27%)

responded that they were satisfied with treating COVID-19 Patients, 25.98% were dissatisfied, 13.39% were neither satisfied nor dissatisfied and 2.36% were very dissatisfied.

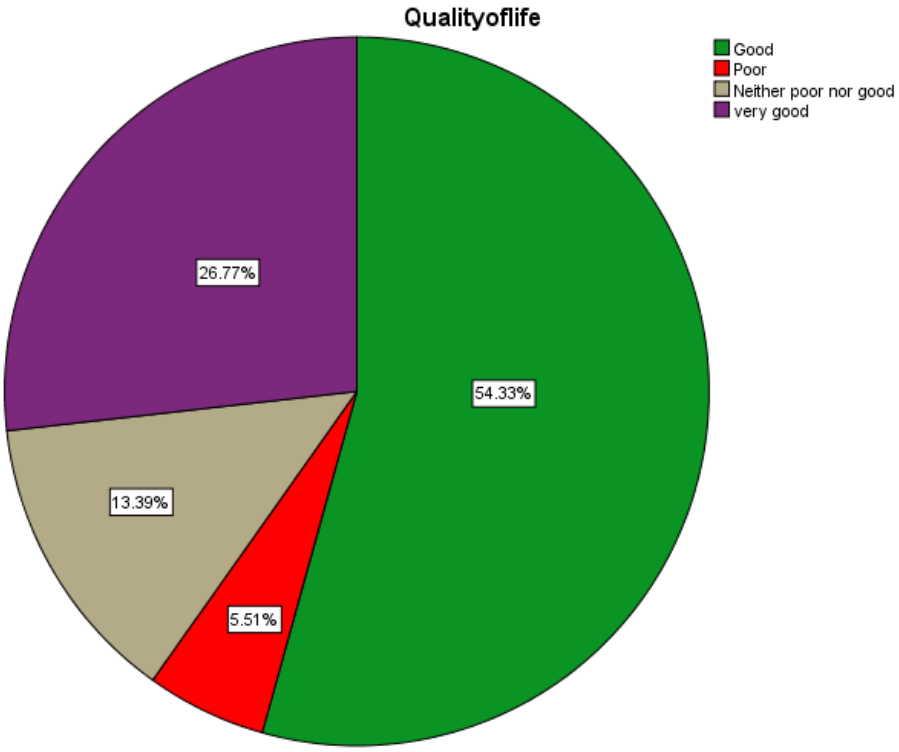

Figure 2: The pie chart represents the Quality of life among nurses. Spring green denotes good, red denotes poor, violet denotes very good and grey denotes neither poor nor good. Majority of nurses (54.33%) replied that they have a good quality of life, 26.77% have very good quality of life, 13.39% have poor quality of life and 5.51% have neither poor nor good quality of life.

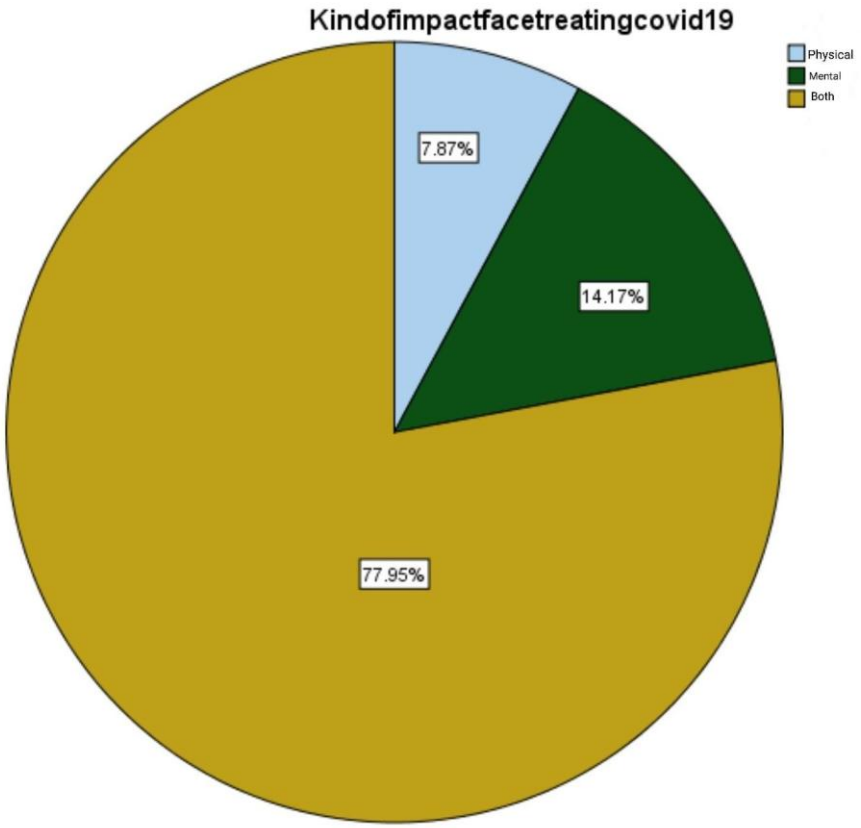

Figure 3: The pie chart represents the kind of impact faced by nurses treating COVID-19 patients. Mari gold colour denotes both physical and mental, forest green denotes mental, light sky blue denotes the physical. Most of the nurses (77.96%) replied that they impacted both physically as well as mentally, 14.17% were impacted mentally and 7.87% were impacted physically.

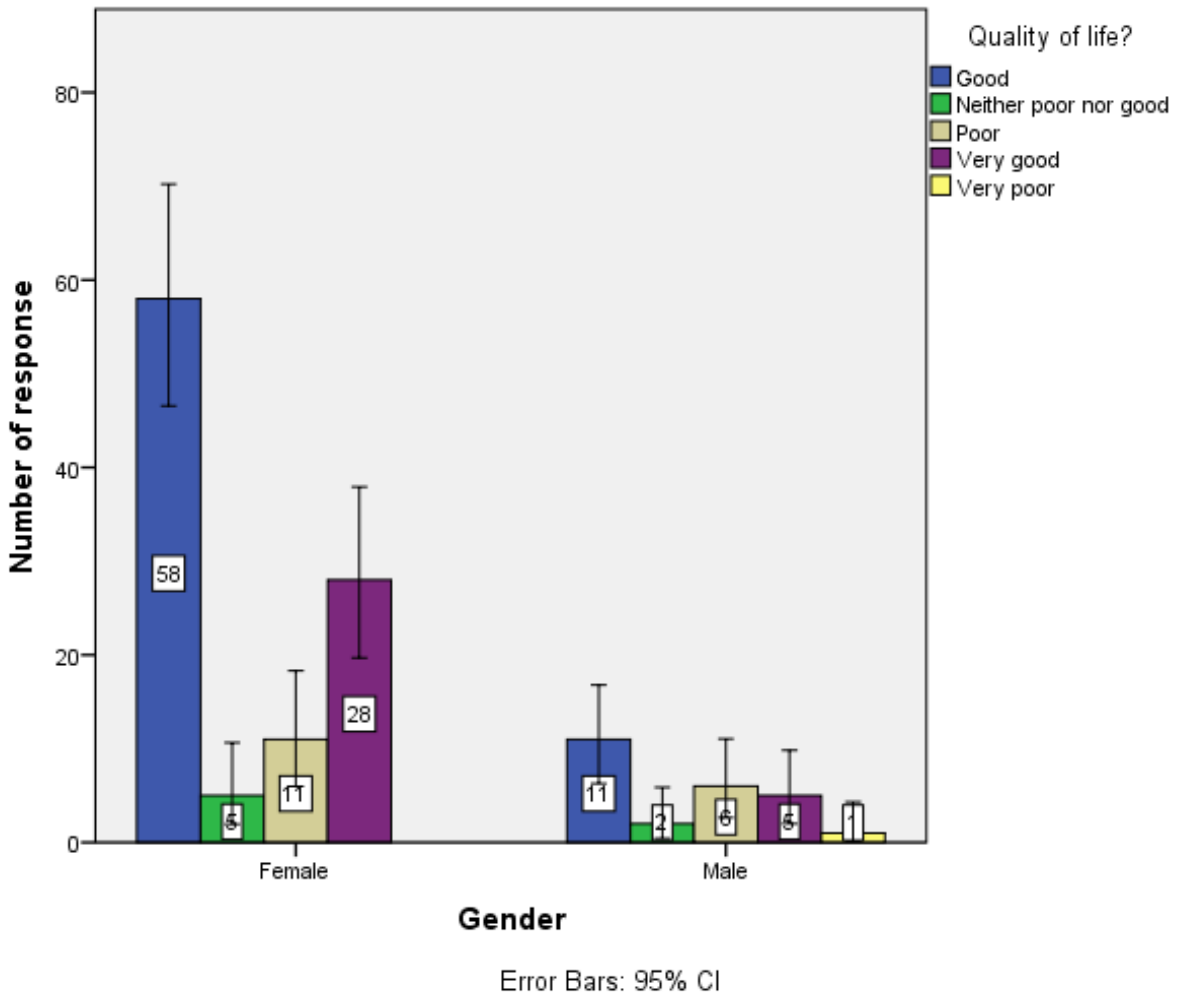

Figure 4: This bar graph depicts the association between the gender and quality of life of nurses. X - axis represents gender and Y- axis, number of responses. Blue represents good , green represents poor , sandal colour represents neither poor nor good, violet colour represents very good and yellow represents very poor. Females (58) responded that they have a good quality of life . Chi square test, p=0.383 (p> 0.05) and it was statistically not significant.

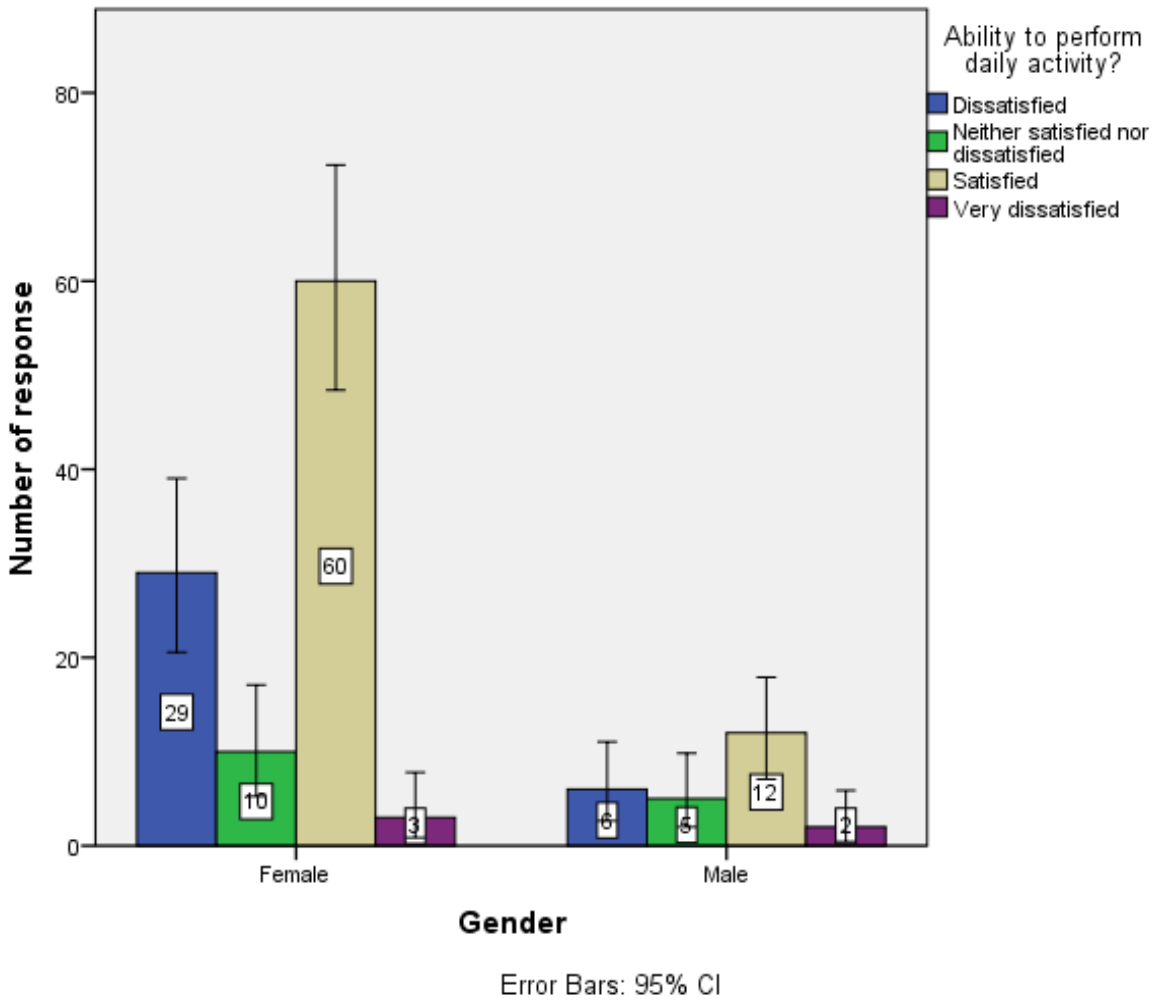

Figure 5: The bar graph depicts the association between gender and ability to perform daily life activities of nurses. X - axis represents gender and Y- axis, number of responses. Blue represents dissatisfied, green represents neither satisfied nor dissatisfied, sandal colour represents satisfied and violet represents Very dissatisfied. Females(60) were satisfied to perform daily life activity. Chi square test, p=0.511(p>0.05) and it was statistically not significant.

DISCUSSION:

When the participants of the survey were questioned about the quality of life among nurses treating covid-19 patients, 54.33% of the participants responded that they have a good quality of life. Even during the covid-19 pandemic period nurses felt good quality of life. Previous study

conducted among the nurses before Covid 19 pandemic reported that 60% of the nurses had a moderate level of quality of working life while 37.1% and only 2% had good quality of life (29). When the participants were questioned about whether they have any fear of transmission of covid-19 to family members 47.15% of nurses have moderate levels of fear. In Previous study, 59.5% had fear that they might infect family members (30).

The participants responded to another question to what extent did nurses have opportunities for leisure activity, 61.79% of the nurses responded that they have only a little time for leisure activity. Previous study conducted among health care workers reported that during the early stage of the SARS epidemic health care workers have poor sleep and insomnia (31). The present study also showed that the majority of nurses (74.80%) have enough safety measures to treat the Covid -19 patients. Even though health care professionals working all over the world received a guideline to treat or handle the Covid -19 patients and an adequate supply of medicinal items for protection (including masks, suits and glasses) they worked with the highest level of pressure (32). The limitations of this study are that less number of participants and majority of nurses were female. The future scope of this study is involving more male nurses with increased no of population and the study was done in some other states also.

Conclusion:

The present study found that the majority of nurses 54.33% have a good quality of life. The wholehearted hard work and selfless service of the nurses rendered by the nurses is to be appreciated. The officials in the health care system should improve the nurses working conditions strategies and their quality of work life, so that nurses will be able to perform their duties properly.

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