



PUBLIC SEMINAR ON COVID-19 PREVENTION AMONG FAMILY CAREGIVERS OF HEMODIALYSIS PATIENTS

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ABSTRACT

Covid-19 is usually severe and represents a poor outcome, particularly in patients who have underlying co-morbidities. Among end-stage renal disease patients dependent on dialysis, covid-19 was related to increased morbidity and mortality. There is no causative therapy currently for covid-19. Thus prevention is mainly the best attempt to limit the burden of the disease. The preventive measure may depend on vaccination and public behavior in controlling the spread of the SARS-CoV-2. In the setting of the dialysis center, the patients' and caregivers' compliance with preventive measures is critical in preventing the spreading of Covid-19. The individual's knowledge and attitudes of COVID-19 are likely to influence individual adherence. Evidence suggests that an individual's knowledge is critical in combating pandemics. Current community service was aimed to increase family caregivers of dialysis patients' knowledge on covid-19 prevention.

Keywords: SARS-CoV-2, covid-19, knowledge, dialysis, caregivers



INTRODUCTION

SARS-CoV-2 (severe acute respiratory syndrome-Corona Virus) was originally described in China in December 2019, and the WHO proclaimed the COVID-19 outbreak a pandemic in March 2020. More than 255 million people had been affected as of November 2021, with more than 5 million deaths reported.¹ The disease's clinical spectrum spanned from asymptomatic to severe cases requiring ventilator assistance and resulting in death. Because the majority of chronic dialysis patients have several comorbidities, they appear to be at high risk for covid-19 and its consequences. Chronic kidney disease (CKD) was identified as a risk factor for mortality in patients with COVID-19, particularly in those with a glomerular filtration rate of less than 30 mL/min/1.73 m², according to a large study in the United Kingdom that included 17 million electronic health records covering 40% of the population.² Deprivation was also linked to greater risks, according to this study.

Patients with CKD in the stadium of end-stage renal disease (ESRD) were dependent on renal replacement therapy. Hemodialysis remained a preferred option for renal replacement therapy in most patients because of easier access. The need for regular hemodialysis required a regular visit to the hospital and made the chronic dialysis patients prone to SARS-CoV-2 spread in the hospital. Thus, chronic dialysis patients encounter extra threats in contracting covid-19, the necessity for frequent hospital visits for hemodialysis, and adjoining spaces with other high-risk patients.

Maintenance dialysis patients were on average 60 years old, and they frequently had other medical comorbid problems such as diabetes, obesity, and uremia-induced immunity defects. All of which enhanced their risk of poor outcomes if they acquired COVID-19.³ This population, which was more socioeconomically challenged than the general population and lived in more densely populated areas, was at a higher risk of contracting SARS-CoV-2. Furthermore, most dialysis patients could not maintain good physical distancing since they relied on social support and caretakers for daily chores and medication.

Because the family was the best source of care for chronic dialysis patients, a substantial percentage of dialysis patients rely on their family members for their daily activities and medical treatment. Caregivers from the family had a critical part in the care of chronic dialysis patients. It is projected that 36 million people give unpaid care to a dialysis family member, with spouses or adult children accounting for the majority of these.⁴ Patients on dialysis frequently require more than 20 hours of care each week from family caregivers. Studies have demonstrated that good family support is beneficial to patients' successful adaptation to dialysis therapy, food regimen compliance, and, in the case of covid-19, patients' adherence to preventive measures. As a result, family caregivers played a significant role in providing efficient communication to dialysis patients when it was suitable.

The covid-19 outbreak reshaped healthcare institutions, allowing them to better control infection among healthcare workers and patients. The behavior of patients or caregivers primarily determined the success or failure of these initiatives. Individual commitment to government-mandated preventive measures was critical in preventing the disease's spread.



The mandate consisted of obligatory precautions to use a mask, frequently wash the hands, and maintain physical distancing. Individual knowledge and attitudes about Covid-19 were likely to influence adherence. Evidence suggests that individual knowledge was critical in combating pandemics. Individual knowledge of the coronavirus could be assessed to acquire deeper insights into existing individual perceptions and practices, assisting in identifying traits that impact an individual's adoption of healthy practices and responsive behavior. Thus, these community services aimed to describe and increase the knowledge of family caregivers toward COVID-19 during the pandemic.

METHODS

Nephrologists should have the role to promote the prevention of Covid-19 infection in the dialysis setting. Therefore, community service in the form of a seminar was held by nephrologists, nephrologist-trainee, and internal medicine residents from September 7th until September 9th, 2021. The seminar aimed to give caregivers of chronic dialysis patients preventive actions facing the Covid-19 situation. The speakers were board-certified internist-nephrologist from Mohammad Hoesin General Hospital Palembang. The speakers gave information about the covid-19 infection in dialysis patients, preventive measures to control the infection, and the importance of prevention of Covid-19 in dialysis patients. The seminar was held in the dialysis unit waiting room in an open-air setting to comply with the preventive measure of covid-19. The seminar participants were all of the family caregivers of the chronic dialysis patients who regularly visit the dialysis unit. The team also prepared a questionnaire to evaluate the student's understanding before and after the seminar. Souvenirs containing hand sanitizer and surgical masks were distributed for family caregivers and the patients themselves at the end of the seminars.

DISCUSSION

The community seminar was running well, and the participants got enthusiastic about the content of the seminar. We collected 78 questionnaires that have been filled by the family caregiver before (pretest) and after the (post-test) seminar. The questionnaire consisted of ten multiple-choice questions that included two topics: recognition of covid-19 and correct prevention methods of covid-19. Every question has 10 points, and the maximum score was 100.

The mean score of the pretest was 43, and the post-test score was increased to 77. The detailed description is shown in Figure 1.

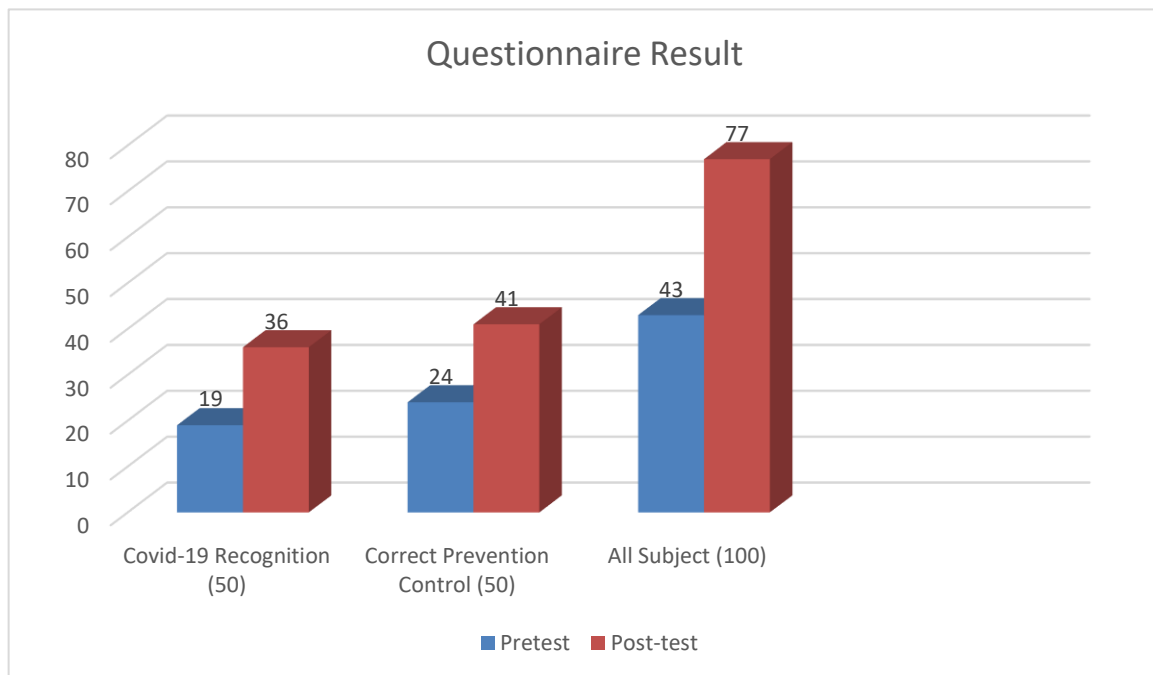


Figure 1. The Pretest and Post-test Results of Family Caregivers' Knowledge on Covid-19

Concerning caregivers' understanding of SARS-CoV-2 transmission strategies and countermeasures, this study's results revealed a general lack of information prior to the seminar. It was especially noticeable in recognizing covid-19 symptoms and the correct prevention control (hand hygiene, mask using, physical distancing). Family caregivers of hemodialysis patients should be aware of this information to avoid the transmission of infectious pathogens or infection with Covid -19. After completing the seminar, there were considerable gains in all areas of knowledge regarding Covid-19 prevention and control techniques. It shows that the seminar was successful in attaining its goal of knowledge enhancement.

These findings were corroborated by Carmassi et al., who stated that there was a marked increase in knowledge following the implementation of an educational program on COVID prevention, and the program's effectiveness was then confirmed by multivariate analysis, which recognized the study intervention as the most impactful determinant of the change in knowledge score.⁵ The program's success was attributed to identified unmet needs and its procedures that followed the rules of interactive adult learning.

The conclusion was also corroborated by Baloran, who demonstrated that the tested subject possessed appropriate information, high-risk perceptions, and non-medical preventative strategies were viewed as very successful.⁶ In addition to the current finding, Al-Hanawi et al. conducted a study on the Saudi public's knowledge, attitudes, and practices toward COVID-19 during the pandemic. They found an improvement when the government took unprecedented and stringent preventive and precautionary measures against COVID-19 to control its spread.⁷



CONCLUSION

Our findings suggest that family caregiver has insufficient knowledge about covid-19 and its preventive measure control. The targeted seminar to family caregivers should be attempted to increase dialysis patients' knowledge of COVID-19 prevention. In this community service, the seminar effectively increased family caregiver knowledge on covid-19.

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