The Impact of Covid-19 on Homecare Workforce: An Analytical Review

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Abstract: The prevalence of Covid-19 patients’ visits at health care centers in the past one and a half years has resulted in an increase in the need for a nurses workforce. Ironically, on the other hand, there is a decrease in the demand and supply of homecare nurses. This study aims to explore the impact of Covid-19 on homecare nurses and offer solutions in the form of maximizing the role of homecare nurses in the pandemic era by using a document review. The study used an analytical review with a descriptive design. The literature was drawn from Google Scholar, ResearchGate, Pubmed, SagePub, and Semantic Scholar. With the PRISMA analysis strategy, the documents in the database (n=160), which deserve to be reviewed (n=47), and those that meet the requirements for review (n=10). The output: the pandemic caused a shortage of nurses and a moderate level of stress among nurses, where agencies experienced a decrease in demand for homecare nurses. The conclusion of this research is to maximize the role of homecare nurses in the pandemic era, it is necessary to have specific guidelines or protocols regarding COVID-19 prevention and management of homecare or for a long-term care system.

Keywords: Covid-19, Homecare, Nurses’ Job

INTRODUCTION

The safety of homecare nurses at work is a major concern during the Covid-19 pandemic (Silalahi & Purba, 2022). Working for 8-12 hours per day, some even 24 hours, dealing with patients with various disturbing health conditions, nurses face risks that can result in a psychological or physical breakdown (de los Santos & Labrague, 2020). The wave of the Covid-19 pandemic has exposed tens of thousands of nurses to the highest risk of death (Allobaney et al., 2020). Those are some of the serious risks that make nurses decide to resign, take sabbaticals, stop working or refuse offers to work in various health care sectors (ICN, 2020). During the Covid-19 pandemic, research projects major changes to the nursing profession (Maxton et al., 2020). The International Council of Nurses noted that during the pandemic 20% of nurses left their profession, 90% said their workload had increased and it was estimated that the need for nurses in the future reached 13 million (Burton et al., 2021). WHO estimates the global decline in nurses to be 5.9 million (WHO, 2020b). The shortages of nurses are concentrated in low and lower-middle countries with the largest gaps in Africa, South East Asia and Eastern Mediterranean WHO Regions (WHO, 2020b). A survey in the USA reported that 98.7% of homecare clients canceled their visits, 80.9% there was a decrease in homecare services (Sama et al., 2021).

The homecare nursing profession in Indonesia is unique. Although already widely known by the public, homecare nurses do not yet have a separate legal organization. They are regulated under the Regulation of the Minister of Health Number 29 of 2014 concerning Clinics in article 32 paragraph (2) which reads “Health services that are promotive, preventive, curative and rehabilitative as referred to in paragraph (1) are carried out in outpatient, inpatient care, one daycare and/or home care.” (Ministry of Health, 2014). Home care is a part or continuation of a continuous and comprehensive health service provided to individuals and families in their place of residence which aims to improve, maintain or restore health or maximize the level of independence and minimize the impact of the disease (Ministry of Health, 2014). Currently, there are 10 institutions that provide homecare services by involving nurses as service providers (homecare.co.id). The absence of homecare nurse organizations that make statistics about homecare in Indonesia is very minimal. The phenomenon that occurs in homecare nurses during the pandemic in Indonesia is more or less the same as that which occurs in various countries in the world.
(Maharani et al., 2022). Amid increasing demand for nurses in general, supply and demand for homecare nurses are decreasing (Sama et al., 2021). In order to answer this phenomenon, research is needed as a contribution to the scientific thinking of the nursing profession on the performance of nurses related to homecare services. This study tried to explore the impact of Covid-19 on the homecare nursing workforce in the form of an analytical review.

**METHOD**

This study explored the results of a literature review through electronic media. Data were taken through several stages from different sources. The initial stage was the determination of keywords in the literature search, namely Covid-19, homecare, and nurses’ job. The second stage was to determine the literature search technique carried out through Google Scholar, ResearchGate, Pubmed, SagePub and Semantic Scholar. The indicators for this literature search were respondents, research methods, year of publication, research results and the language used. The inclusion criteria were homecare nurses, the research method (a combination of quantitative, review documents, descriptive, and cross-sectional designs), the year of publication (from 2016 to 2021), the research results (focus on homecare jobs) and the language used (English and Indonesian).

In the third stage, a literature search was carried out using the PICOT method (Population, Intervention, Comparison, Outcomes, and Time). The researcher determined the topic and arranged a foreground question consisting of the population (P), intervention (I), comparison (C), outcome (O), and time (T). In this review, the desired population (P) is homecare nurses, intervention (I) is home care, outcome (O) is home care jobs, and time (T) is Covid-19 pandemic. The database was used to collect articles with relevant keywords (PICOT) with a combination of “AND” and “OR”. To be more specific, the researcher limited the year of publication in the last 5 years, full text, and only articles that use English and Indonesian. All of those processes were carried out by implementing the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) strategy, which is divided into three steps: identification, screening, and included.

**RESULTS**

**Study Selection**

The study selection was extracted from the database. The keywords are the combination of AND and OR of homecare nurses, nurses job and Covid-19. It contains database sources and the keywords in the below table:

<table>
<thead>
<tr>
<th>Databases</th>
<th>Key words Used</th>
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<tbody>
<tr>
<td></td>
<td>Homecare Nurses</td>
<td>Nurses’ Job</td>
<td>Covid-19</td>
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<tr>
<td>Google Scholar</td>
<td>8</td>
<td>2</td>
<td>9</td>
<td>19</td>
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<td>ResearchGate</td>
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<td>1</td>
<td>7</td>
<td>13</td>
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<tr>
<td>PubMed</td>
<td>2</td>
<td>1</td>
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<td>7</td>
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<tr>
<td>SagePub</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Semantic Scholar</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
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<tr>
<td><strong>Σ</strong></td>
<td><strong>16</strong></td>
<td><strong>4</strong></td>
<td><strong>27</strong></td>
<td><strong>47</strong></td>
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</tbody>
</table>

The table above shows the document search results where the database from Google Scholar dominates (19 documents or 42.4%), followed by ResearchGate 13 documents (27.6%) and the lowest is Semantic Scholar 3 documents (6.4%). The documents screening is based on the inclusion criteria, namely Covid-19, homecare and homecare nurses jobs. Table 1 is abstracted from the results of the PRISMA Strategy analysis whose data is contained in Diagram 1.
PRISMA Analysis

Diagram containing the results of database identification (Diagram 1). This is the third part of the process which is a summary table of selected journals from PRISMA analysis entered in the Included category (Table 2). During the initial document search, 160 documents were obtained. After being screened, 70 documents were taken, while 90 documents were deemed inappropriate. The complete data is broken down in the table below:

The diagram above is PRISMA Strategy shows three groups of document selection stages which include Identification, Screening and Included. In the screening stage, initially n=160 was obtained from the databases of Google Scholar, Research Gate, PubMed, SagePub, and Semantic Scholar. Records removed 90 documents due to duplication, incompatibility and for other reasons (n=90). The second stage is screening where 70 records (n=70) were obtained. The data was obtained after setting aside 20 of the unfocused documents (n=20). Then filtered again to 47 documents (n=47) which is obtained after deleting the sought not retrieved 23 records (n=23). The last stage is filtering the main or core data that is included in the 10 documents (n=10) review which is considered to meet the study selection criteria. The last document was obtained after deleting 37 documents (n=37) because it was considered not in accordance with the study selection criteria. The 10 main documents were filtered based on criteria including author name, journal title, year of publication, country of origin, research methods, and results achieved. The summary is contained in Table 2 below:

The following table contains a summary of the title, researcher, years of research, country of research, research methods, design, instrument, variable, analysis, and research results. The document summary filtered as a result of selection using PRISMA analysis is the result of the final analysis stage (Included Stage) which consists of 10 documents. Each document is selected after being selected for its eligibility.
<table>
<thead>
<tr>
<th>No</th>
<th>Author(s), Year, Title</th>
<th>Country</th>
<th>Methods</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sama et al., 2020, Impacts of the COVID-19 Pandemic on Home Health and Home Care Agency Managers, Clients, and Aides: A Cross-Sectional Survey, March to June, 2020.</td>
<td>USA</td>
<td>Quantitative, descriptive design, using surveys of the 94 agencies. Quality control and analyses were performed using SAS statistical software</td>
<td>The findings were during Covid-19 pandemic there was a decrease in demand due to concerns that occurred both for clients, families, and nurses.</td>
</tr>
<tr>
<td>2</td>
<td>Sumardin et al., 2020, Homecare to the Elderly.</td>
<td>Indonesia</td>
<td>Literature Review. Prisma Analysis. Data obtained from five articles were then carried out by the journal research critics using the appropriate CASP tools with the Critical Appraisal of Qualitative Study.</td>
<td>The study suggests nurses as home care service providers should conduct an analysis before taking action.</td>
</tr>
<tr>
<td>3</td>
<td>Andrade et al., 2016, Nursing practice in home care: an integrative literature review</td>
<td>Brazil</td>
<td>Integrative Review. Employing databases LILACS, BDENF, IBECs, and MEDLINE. Studies in Spanish, English, and Portuguese.</td>
<td>It was found that nursing practice of homecare is very complex which requires soft skills, hard skills and technology.</td>
</tr>
<tr>
<td>4</td>
<td>Bellanti et al., 2021, Factors Related to Nurses’ Burnout during the First Wave of Coronavirus Disease-19 in a University Hospital in Italy</td>
<td>Italy</td>
<td>Web based section cross sectional study. Instruments were questionnaires distributed to nurses working at the University Hospital in Foggia, Italy. Occupational variables, including the Maslach Burnout Inventory (MBI) and the Oldenburg Burnout Inventory (OBI). Data were analyzed by multivariate regression analysis</td>
<td>The researchers found that among demographic and occupational factors, nurses in their duties experience stress and workload that causes them to leave their jobs.</td>
</tr>
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<td>5</td>
<td>Nugroho et al., 2020, Analysis of the Homecare services that patients want based on cases of disease during the Covid-19 pandemic.</td>
<td>Indonesia</td>
<td>Quantitative and cross-sectional design. The population was all patients of 172 respondents using the simple random sampling technique. Collecting data using a questionnaire. Multivariate analysis was performed using a linear regression test.</td>
<td>The study recommends nursing, medical, other health and physiotherapy services are a harmonious combination that aims to create good homecare services for community satisfaction.</td>
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<tr>
<td>6</td>
<td>Al Thobaity &amp; Al Shammary, 2020, Nurses on the Frontline against the COVID-19 Pandemic: An Integrative Review</td>
<td>Saudi Arabia</td>
<td>Integrative Review. The keywords were “nursing,” “pandemic,” “COVID-19,” “coronavirus,” and “nursing” in the following databases: CINAHL, ScienceDirect, ProQuest, Scopus, and Google Scholar. Data analysis used PRISMA.</td>
<td>The research found major issues facing nurses in this situation are nursing shortages, lack of beds, medical supplies including personal protective equipment which results in fear of being exposed to nurses.</td>
</tr>
<tr>
<td>7</td>
<td>ICN, 2020, The Global Nursing shortage and Nurse Retention</td>
<td>African, South- East Asia and Eastern Mediterranean WHO regions</td>
<td>Report. The International Council of Nurses (ICN) has recorded nearly 3,000 COVID-19 related deaths among nurses in 60 countries. The report is intended to give an overview of the challenges, highlight the potential impacts on the nursing workforce, and inform policy responses.</td>
<td>Evidence from various studies indicates that the development of Covid-19 has resulted in a mass traumatization which has ended in nurses shortages globally.</td>
</tr>
<tr>
<td>No.</td>
<td>Authors, Year, Title, Country</td>
<td>Methodology</td>
<td>Results</td>
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<td>8</td>
<td>Cui et al., 2020, Impact of COVID-19 on Anxiety, Stress, and Coping Styles in Nurses in Emergency Departments and Fever Clinics. China</td>
<td>A Cross-Sectional Survey. Nurses self-administered the online questionnaires. SAS and PSS were used to measure stress and anxiety. Data were analyzed descriptively.</td>
<td>The findings were participants with the following characteristics had more mental health problems: female, fear of infection among family members, regrets about being a nurse, little rest time, many night shifts, having children, lack of self-confidence, lack of emergency protection training, and a negative professional attitude.</td>
<td></td>
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<tr>
<td>9</td>
<td>Jayadev et al., 2020, Perceived Stress Among Nurses During Covid-19 Outbreak India</td>
<td>Descriptive Cross-Sectional Survey. Purposive Sampling Technique. A total of 190 nurses participated. The demographic variables were age, education, and experience. SPSS was used for the data analysis.</td>
<td>The survey showed moderate levels of stress felt by most nurses during the pandemic.</td>
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<tr>
<td>10</td>
<td>Sani et al., 2020, The COVID-19 Long-Term Care Situation in Indonesia</td>
<td>Report. Statistical data of COVID-19 cases in 34 provinces in Indonesia. Older people (defined as aged 60 and above) made up the biggest proportion of deaths.</td>
<td>The study concludes there are no specific guidelines or protocols regarding the prevention and handling of COVID-19 or for users of long-term care systems, except for protocols and educational materials for vulnerable population groups.</td>
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</table>
DISCUSSION

From the previous summary results of the research analyzed using the PRISMA strategy, it can be concluded that the main problems during the Covid-19 pandemic related to the employment of homecare nurses are the shortage of nurses, moderate level of stress among nurses, and a decrease in the demand and supply for homecare nurses. The gap is caused by four main problems, namely the increasing workload of nurses, psychological stress, lack of protection facilities, and the absence of standardized protocols.

**Shortage of Nurses Due To Workload**

According to WHO, the shortage of nurses reached 5.9 million (ICN, 2020). ICN noted that during this pandemic, the number of nurses who stopped working reached 20% (ICN, 2021). Coupled with stress, lack of family support and lack of PPE facilities, some of those factors make nurses worry about their health conditions because the risks faced during the pandemic are quite large (Victor Tseng, 2021). Increased research during the pandemic experienced by health workers proves the workload (Sama et al., 2021). The workload is a source of problems why nurses eventually stop working, resign or refuse work offers. The increase in workload during the Covid-19 pandemic is felt even by all health workers. The spread of the infection due to Covid-19 in the health sector has led to an increase in workloads on all fronts (Silitonga & Tarigan, 2022). The workload also occurs in all forms of services, from administrative to technical, from primary, secondary to tertiary services.

Homecare nursing services can be carried out in the community, in hospitals as well as in health care centers. The duties and responsibilities of nurses in homecare services are quite complex (Karim & Lubis, 2017). In some situations, the homecare nurse plays a single role although there are also shift duty ones. Since the onset of Covid-19, the additional workload in the preventive sector has been very clear, especially screening for each patient (Kemenkes, 2020). In the curative sector in the form of hospitals procedures, there have been a massive change in standard operating procedures because nursing and medical actions no longer took place normally (United Nations, 2020). With the establishment of the Covid-19 hospital for example, the burden of homecare nurses is different, from the admission process to the discharge of patients. Likewise in the tertiary sector where physiotherapy procedures outside the patient's home or when accompanying patients to visit parks have been changed. As the government imposes restrictions on activities that involve large numbers of people (Hukumonline.com, 2020), now, there is an appeal or advice for everyone to vaccinate. Vaccination is an administrative requirement in various public activities (Koirala et al., 2020). All of those are an additional workload for nurses. Therefore, increasing the number of nursing workers is needed, especially in the curative sector. The provision of incentives is also very influential on the performance of homecare nurses (Lee et al., 2021). From an Occupational Health point of view, homecare nurses are also entitled to an occupational risk benefit (Lumeng et al., 2020). If those three things are not getting enough attention, a shortage of nurses during the Covid-19 pandemic cannot be avoided.

**Stress Among Homecare Nurses**

Stress that occurs in nurses is a classic and chronic problem (Widayati et al., 2015). Many researchers have proven the causes of work stress experienced by nurses who until now have not found the right solution (Tukayo et al., 2020). The most common causes felt by nurses are the workload, lack of staff, equipment, benefits or remuneration that are not as expected, to the lack of compensation or the absence of risk allowances. The stress is experienced by nurses in various types of health services and in many divisions, from public health centers, clinics, hospitals to occupational health settings.

It was stated that 83% of health workers experienced burnout during the Covid-19 pandemic (de los Santos & Labrague, 2020). Burnout that occurs in nurses is not new. The phenomenon has long been the center of attention of nursing researchers. Stress at work during Covid-19 has been in the spotlight with various recommended efforts to overcome it. However, the stress experienced by nurses will have an impact on the quality of nursing services which in turn will harm various parties, be it patients,
business owners, government, society, as well as nurses themselves. Therefore, overcoming the problem of nurses’ stress requires cross-professional, cross-departmental and cross-sectoral collaboration.

The problem of lack of energy, for example, is often used as a scourge as the main cause of stress. Nurses who work with a minimal number of staff, will automatically complain of being overworked. They can not work optimally in meeting the needs of patients. Job satisfaction is not felt. Patients and their families feel the same way. To overcome the shortage of staff requires understanding of the human resources department, company management concern and entrepreneurs as the owners. To erode the notion that nursing work is very simple, it needs to be promoted.

On the other hand, the acquisition of remuneration below the standard is also common among nurses (Clarke et al., 2008). Nurses consider the salary they get is not commensurate with the workload and risks. The stress level of nurses will increase because of their financial background and the demands of their needs as members of the family and social community (Nelson & Folbre, 2006). Research on the issue has been widely and frequently revealed. It’s just that the implementation is lacking, so the stress experienced by nurses is endless, especially during the pandemic era.

Decrease in Demand and Supply of Nurses

The need for homecare nurses in developed countries is always increasing (The BrightStar Care, n.d.). In the USA, it is predicted that the demand for the homecare market from 2016 to 2027 will increase almost four times (Bennett et al., 2018). In fact, the trend of homecare needs has increased sharply since 2000 (Genet et al., 2011). In Indonesia, the homecare growth chart has increased since 2010 by 7.6% and is estimated to reach 15.8% in 2035 (Industry.co.id, 2021).

The Covid-19 pandemic has hit businesses in all sectors. The health sector is actually 'benefited'. On the one hand there is an increase in morbidity and mortality (Sama et al., 2021). On the other hand, there has been a decrease in demand and supply for the number of health workers due to the establishment of the Covid-19 division in various health service centers (Sama et al., 2021). The number of nurses needed is also increasing, especially pandemic volunteers (Syahril, 2020). Not so with homecare services. The homecare phenomenon during a pandemic is quite unique.

Homecare services are not only at home (Canadian Home Care Association et al., 2016). It can be in hospitals, health centers with inpatient services or in nursing homes. Homecare patients are not completely dependent on nurses. The main task of homecare nurses is to help patients to be independent in meeting their basic needs (Sinaga et al., 2018). Homecare services in patients’ homes require nurses who are not only skilled in performing homecare nursing procedures, but are also good at socializing and interacting socially with outpatients. Thus the workload of homecare nurses increases because of family factor. The patient’s family plays an important role in many nursing procedures, especially in elderly patients or those who are difficult to communicate with. During this Covid-19 pandemic, the risk of exposure, concerns or suspicions increase which makes the patient’s family and nurses think again and again in order to decide whether to need homecare nurses or not. Moreover, there is a policy for social distancing where people are advised not to receive guests. Vaccination requirements and minimum swab requirements are other supporting factors that hamper the demand and distribution of homecare.

Those problem can be overcome by having a clear protocol regarding homecare. WHO has recommended this public health service procedure (WHO, 2020a). It’s not just that at the local level, because of the different social cultures, local wisdom is needed. The USA, Japan, the Netherlands, Germany, Africa, Arabia and Indonesia have different traditions and cultures from one place to another. Homecare services need to get promotional support, including from nurses. Homecare nurses association plays a vital role in this regard. The associations can hold an online webinars or use social media to promote the role and duties of homecare nurses during the pandemic so that the public and nurses are not too worried because they are supported by clear health protocols. Therefore, it is very significant to support the existence of a standard protocol on homecare. Similarly, the support from the central or local government, and other health professionals to the community is also needed. Without their involvement homecare services during the pandemic will not be realized to return to normal within a predicted time.
CONCLUSION

The article tries to discuss various problems faced by homecare nurses during the Covid-19 pandemic. Of the 10 existing documents, the researchers agreed, the problems faced related to homecare employment conditions as a result of this pandemic, the worst was an increase in workload, increased stress levels and a decrease in demand and supply of homecare nurses. Handling those problems requires coordination across departments, professions and sectors including the involvement of homecare nurse associations. However, the existence of homecare nurses as projected by many studies, they are always needed and the trend continues to increase. The findings are the evidence that homecare nurses are always needed by professions, institutions, society, and the state. Therefore it legally needs a lot of support. The weakness of this study is the lack of references to homecare nurses jobs. Research interest in homecare in Indonesia is also low. At least, this analytical review can help provide a description of the homecare nurses conditions during the Covid-19 pandemic and offer a recommendation that might be useful for future studies.

REFERENCES


