

Healthcare Safety Nets during COVID-19

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Healthcare safety net is an important concept during covid-19 infectious diseases. In the case of covid-19, the healthcare safety net meets the safety requirements, improves the quality of life, and reduces the turnover rate and mortality of patients.

Keywords: healthcare safety net ; safety net ; COVID-19 pandemic ; double diamond model ; concept analysis ; healthcare system ; health inequality ; healthcare accessibility

1. Healthcare Safety Net Analysis

To control COVID-19 and prevent unnecessary suffering and economic loss, group behavior must be improved [1] and a clear definition of a healthcare safety net must be established [2]. This study used the concept analysis developed by Walker and Avant (2005) [3] and the double diamond model (1996) [4] to analyze the concept of the healthcare safety net during COVID-19. Capacity, accessibility, health equality, and education were identified as the attributes of this analysis.

Healthcare safety is a broad concept, and a net is any system that provides an opportunity to meet the needs of individuals or households facing difficulties. While the concept includes all people, low-income and poor groups are a narrow concept within it [5]. A healthcare safety net is very important for public safety since it is the sole provider of first-line emergency care, as well as routine healthcare through hospital EDs, EMS providers, and public/free clinics [6]. In particular, the ED is where the occurrence of disease burden and imbalances can be monitored, and targeted and culturally appropriate responses implemented [7]. Therefore, to increase the capacity of a healthcare safety net, support for physician practices, hospitals, and healthcare systems [8], expansion of treatment capabilities, and maintenance of the capacity of treating hospitals [9] must be ensured.

Given that COVID-19 is a global pandemic, healthcare services need to be highly accessible [10]. However, socioeconomic disparities have only worsened during the COVID-19 pandemic [11], with difficulties in accessing telemedicine for low-income people and those with language limitations emerging as increasingly relevant issues [12]. Good access to healthcare services can help expedite detection and treatment of COVID-19 patients [11][10] and reduce the mortality rate [13]. Accordingly, to increase the accessibility of a healthcare safety net, the accessibility of essential healthcare must be ensured [14], including COVID-19 testing [9], access to healthcare services [10], telemedicine services [14], and vaccinations [13].

Health equity implies the absence of unjust and preventable differences in health between groups of people [15]. However, a lack of personal protective equipment, limited staff to screen for COVID-19 [9], language barriers, insufficient data plans, and legal barriers in accessing technology or the Internet [16] have caused health inequalities. Moreover, health disparity is associated with an increased risk of serious diseases due to COVID-19 infection [17]. Therefore, people must be able to receive essential treatment [2] regardless of race and ethnicity [11], insurance coverage, or financial background to ensure that healthcare inequalities do not occur during the COVID-19 pandemic. In particular, public policy responses at government levels must call [18] for the expansion of essential healthcare [9], equitable allocation of resources [18], and balance [12].

A healthcare safety net encompasses both first-line emergency care and routine healthcare [6]. In particular, COVID-19 has forced healthcare professionals, healthcare systems, scientists, and policy makers to resolve social inequalities to improve the health and well-being of people [11]. However, to prolong this effect, treatment and public health education are needed [11]. Additionally, education on the rapid utilization of health information technology to coordinate healthcare and public health responses to COVID-19 is needed [9]. Educational programs help nurses better care for their patients, increase their confidence, and ultimately improve the quality of patient care [19]. Government and health systems are providing education to those affected by COVID-19 for psychological and social cohesion, as well as providing updates on the discovery and development of the latest pandemic, improving nurses' abilities to care for patients with COVID-19 [20].

Additionally, nurses contribute to providing a better working environment by providing emotional support through education to employees who are concerned about being infected with the virus themselves [21]. Therefore, a healthcare education system that can enhance the level of knowledge about COVID-19, actively practice prevention activities [22], and increase patient participation must be implemented [16].

| 2. The Effect of Healthcare Safety Nets

Nursing personnel account for nearly 50% of the global health workforce, providing nursing in hospitals and long-term care facilities, and they are at the forefront of the fight against the spread of the pandemic [23]. As COVID-19 spreads worldwide, nurses are disproportionately vulnerable to COVID-19 and are physically and mentally exhausted as a result of taking care of patients infected with COVID-19 [24]. Therefore, a clear definition of a health safety net in nursing is needed [24].

Most countries are struggling with COVID-19 because they have not listened to public health advice after epidemics, like the last outbreak of SARS [25]. Additionally, differences in socioeconomic status and health inequality have become clearer, while the concept of an appropriate healthcare safety net is not clear [25]. Public hospitals, which played a major role in Korea's COVID-19 situation, ensured healthcare access for patients, and public hospitals designated as COVID-19 exclusive hospitals to secure negative pressure isolation beds for intensively treated infectious patients [26]. Anyone with no symptoms such as fever, headache, or difficulty breathing was provided with free COVID-19 preemptive tests so that asymptomatic patients could be detected and treated in advance [26]. It was possible to receive COVID-19 treatment such as treatment, nursing, counseling, examination, medication, and monitoring at the living treatment center [26]. It is thought that public hospitals include all the attributes of a healthcare safety net.

To protect healthcare staff from the highly contagious COVID-19 virus and to protect other patients visiting hospitals and public health centers, a temporary clinic has been established outside the building to collect samples or drive-thru so that testing can be done without getting out of the car [27]. Through intensive efforts from all government ministries led by the Korea Centers for Disease Control and Prevention (KCDC), and active participation of the healthcare community and citizens, the Republic of Korea is carrying out an effective quarantine project [27]. The KCDC is receiving support from the public by quickly and transparently delivering accurate information about COVID-19 to the public [27]. However, early education needs to be strengthened [27].

In order to solve the health equity problems, an urgent response from the downstream and countermeasures for contributing factors from the upstream or middle are required at the same time [28]. For example, if measures at the individual level are generally referred to as downstream-level approaches to reduce the effect of the results on a population group that shows discriminatory outcomes such as health behaviors or health levels, it is likely that measures that contribute to the health gap measures at the institutional level, such as socioeconomic conditions like employment, education, and income disparity, are upstream approaches [28]. This is considered to be related to the internal and external factors of health inequality suggested as antecedent factors of the healthcare safety net in this study. It is believed that the effectiveness of the healthcare safety net can be increased by lowering the factors of health inequality presented in this study. In the response stage of a global pandemic, while focusing on urgent responses to immediate burdens such as disaster aid and unemployment benefits, in preparation and recovery, measures related to social health determinants should be emphasized [29]. For example, it will be necessary to invest more in equity in areas such as the establishment of a public health and healthcare system, basic economic security, guaranteed access to digital infrastructure, establishment of a system to comply with quarantine rules, and safe and equitable social infrastructure [29].

Populations socially and economically deprived due to COVID-19 are vulnerable to epidemics [30], and marginalized populations who have experienced past epidemics and recent natural disasters will see health inequality [31]. Therefore, it will be possible to reduce the gap between SES and health inequality from future infectious diseases and natural disasters by taking economic and social protective measures for those who are vulnerable to COVID-19 and suffer from health inequality. In particular, Korea has many COVID-19-positive cases in the workplace [32]. Therefore, workers of large companies can work from home, but workers of small and medium-sized enterprises are vulnerable to COVID-19 as they are exposed to the risk of unemployment due to COVID-19 [33]. Accordingly, Korea is making efforts to prevent the spread of group infection by utilizing social distancing, flexible working hours, early identification of suspected infected workers, and disinfection of the workplace to prevent group infections occurring at the workplace [32].

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