INTRODUCTION

The COVID-19 pandemic has had a vast impact on inequality. Vulnerable population groups are mostly impacted by the outbreak of an infectious disease. Specifically, if the provision of services at social welfare facilities is interrupted due to an epidemic, then the vulnerable people who need social services face greater difficulties. The theory of disaster vulnerability corroborates this discussion. Emphasizing that vulnerability to disasters depends on socioeconomic characteristics, the theory reveals that if disasters such as infectious diseases occur, then vicious cycles arise in which vulnerable population groups become more vulnerable (Bolin & Kurtz, 2018; Cutter et al., 2003; Flanagan et al., 2011; Singh et al., 2014; Tate, 2012; Thomas et al., 2013).

During the first five months of the COVID-19 epidemic, the Korean government adhered to the closure of social welfare facilities. As a result, around 325,000 residents of living facilities (as of January 2021) such as care homes were isolated in the building without interaction with the outside world for months. More than 653,000 social services users across the country (as of January 2021) experienced a loss or
reduction in essential services due to the shutdown. However, as the COVID-19 epidemic continued, the government’s policy changed to allow provision of social services through flexible operation of facilities. As a result, social workers have faced a double burden of responsibilities to provide adequate social services and respond to COVID-19.

The role of social workers (professionals who provide services to vulnerable population groups) during the pandemic is important (Streeter & Murty, 1996; Zakour, 2000), but few studies have been conducted on this dimension of the COVID-19 crisis. Social workers play a role in mitigating the negative impact of disasters on vulnerable people and/or in coordinating the resources needed to deliver services to meet the basic needs of vulnerable populations (Gillespie & Danso, 2010). Research in workers who intervene in times of epidemic crisis to support the vulnerable is limited to healthcare workers. While studies have been conducted on the psychological state of frontline medical workers during the COVID-19 pandemic (Delgado et al., 2020; Smith et al., 2020; Zhang et al., 2020), there has been a relative lack of focus on other frontline workers supporting the everyday lives of at-risk populations.

This study tries to evaluate the mediating role of satisfaction level with government response policies on the psychological state of social workers. Studies have reported that active responses by governments to hamper the spread of COVID-19 have contributed to psychological stability in citizens (Atlani-Duault et al., 2020; Liao et al., 2020; Sibley et al., 2020). In particular, the South Korean government has actively and preemptively responded to COVID-19 in close cooperation with local municipalities from the earliest days of the emergence of the dangerous virus. Since social welfare facilities are affected by government guidelines and supervision of local governments during the COVID-19 pandemic, it is necessary to pay attention to the influence of government satisfaction on the psychological state of social workers.

Social welfare facilities in South Korea have taken their own countermeasures against COVID-19 according to the specific services of the facility. This study examines how these measures are associated with the psychological state of social workers. Social workers employed at various facilities are affected by the facilities’ actions, but awareness of government policies to take action against COVID-19 also has an impact (e.g., Atlani-Duault et al., 2020; Bol et al., 2020; Liao et al., 2020; Shreffler et al., 2020; Sibley et al., 2020). This study analyzes whether level of satisfaction with government policies in response to COVID-19 has a mediating role in the association between the response measures of social welfare facilities and the psychological state of social workers.

2 | INSTITUTIONAL AND THEORETICAL CONSIDERATIONS

2.1 | Government response to COVID-19 in South Korea

The central government and local municipalities in South Korea are articulated organizationally in the infectious disease response system. According to protocol, the central government establishes a wide range of disaster and safety management strategies and plans, with local municipalities carrying out on-site tasks such as practical responses and regional restoration. COVID-19 is transmitted regardless of regional boundaries, so in cases where the central government has announced overall measures pertaining to this virus, local municipalities have established policy-compliant guidelines and preventive measures that reflect the specific features of the region.

Central Disaster and Safety Countermeasures Headquarters (CDSCHQ), part of the Ministry of the Interior and Safety, is responsible for South Korea’s infectious disease response system. In cooperation, public agencies work to cope with infectious diseases and related situations. Infectious disease crisis alerts are divided into four stages of escalating severity—Attention (blue)-Caution (yellow)-Alert (orange)-Serious (red). At the initial stages, the Central Disease Control Headquarters (central government) and Local Quarantine Task Force (local municipalities) are operable. At the “Alert” and “Serious” stages, these two organizations are expanded to the CDSCHQ and Regional Disaster and Safety Countermeasure Headquarters. Through previous experience with other infectious diseases including MERS and SARS, Korea’s disaster management system for infectious diseases has been improved, and the roles of the central government and local municipalities have been specified (Lee & Ki, 2015; Lee & Jung, 2019).

The first COVID-19 patients in South Korea were identified on January 20, 2020, and the highest alert in the infectious disease crisis warning scale—the “Serious” stage—was issued on February 23. At the time (and in effect as the crisis has continued), the CDSCHQ prepared various guidelines related to COVID-19 and operated infectious disease management support teams for each local municipality. The guidelines for responding to COVID-19 in social welfare facilities were characterized by temporary closures to focus on preemptive and strict prevention in the early days of the outbreak and have been modified to cope with the urgent care and social service needs of users as COVID-19 has spread as the pandemic has been prolonged. COVID-19 response guidelines for facilities have been revised and reissued from the first edition on February 4, 2020, to the seventh edition on November 11, 2020.

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1Social Security Statistics [Website] (Last access 2021, August 6). Retrieved from http://www.bokjiro.go.kr/nwel/welfareinfo/sociquastat/retrieveSociQuastframePopup.do?datNs=63&datCId=91082

These are the number of people who had benefited from social welfare facilities. The number of vulnerable people in the blind spots of social services is unknown, but they may be facing more difficult situations.
2.2 | Satisfaction with the government and psychological state during COVID-19

The government’s ability to respond is an important factor in managing the spread of infectious disease, and the collective psychological state of citizens depends on their level of awareness about the government. Management of infectious diseases depends on a government’s countermeasures and policy capabilities. In particular, if an organic relationship exists between the central government and local municipalities of a country in responding systematically to an infectious virus—such as in South Korea—the role of the government is more profound during the time of crisis. In social workers in the South Korean context, level of satisfaction with the government can be closely related to their psychological state.

Satisfaction with the government pertaining to COVID-19 is associated with a sense of stability provided by policy implementation. In response to COVID-19, the Korean government’s strategies can be summarized as school closures and restrictions on commercial activities and personal freedoms (Briscese et al., 2020). This kind of aggressive policy implementation has increased trust in the government (Teufel et al., 2020) and has impacted psychological and behavioral aspects of citizens during the pandemic (e.g., Atlani-Duault et al., 2020; Liao et al., 2020). In particular, the period of compulsory socioeconomic lockdown, one of the government’s countermeasures for safety against the spread of COVID-19, has had a large negative impact both in terms of personal and economic dimensions of the pandemic (McKibbin & Fernando, 2020). But it is also has been reported that the lockdown has had positive effects in providing a sense of psychological stability for citizens (e.g., Bol et al., 2020; Sibley et al., 2020). In contrast, other research has shown that intrusive strategies for public health on the part of the government have been negatively associated with quality of life, such as well-being, in the minds of some citizens during the pandemic (e.g., Möhring et al., 2020).

Generally speaking, there are two psychological paradigms for social workers under the COVID-19 pandemic—namely, negative emotionality and a state of well-being. First, the concept of well-being indicates an assessment that focuses on the quality of an individual’s state of existence from various viewpoints (Diener et al., 2009; Gasper, 2005: 10). Well-being is a general term for psychological and mental satisfaction and individual prosperity, inextricable from measures such as quality of life, life satisfaction, and happiness, but characterized by a higher concept that encompasses these specific dimensions and more (Adams et al., 2017; Haybron, 2008; McCrea et al., 2014). Second, the idea of negative emotionality encompasses anxiety, depression, and concern. Social workers are more likely than normal citizens to be exposed to various negative emotions in the context of epidemics, and they have to manage various negative emotions in traumatic situations (Collins, 2007: 257). A previous study explains that social workers with high psychological resilience are capable of adapting to situations of intense stress and/or conflict or uncertainty, and that they handle such situations effectively even in the face of hardship or adversity (Tugade & Frederickson, 2004).

Most prior studies empirically confirm that the government’s ability to better understand and flexibly respond in disasters has a positive effect on workers’ mental health. On the other hand, the more negatively considered is the government’s policy on disasters, the more negative is the psychological state of the parties involved. When essential workers in disaster areas feel that the government and officials fail to understand the situation and respond in a perfunctory manner, then they are more likely to experience increased levels of stress (Gouli et al., 2010; Hearns & Deeny, 2007; Johnson et al., 2005; Wilson & Gielissen, 2004). Moreover, when the government does not provide guidelines for responding to disasters or does not make active efforts to solve the needs of relief workers, the psychological state of such workers worsens (Johnson et al., 2005; Soliman et al., 1998). That is, the government’s serious and active efforts in disaster response have a positive impact on the psychological states of workers involved in the response process, including social workers.

The South Korean government’s directives in responding to COVID-19 are summarized as preemptive measures and strict preventive management, as discussed above. During the COVID-19 pandemic, many studies have been conducted on aspects of negative emotionality such as depression, stress, anger, and anxiety in the general population, and several studies have analyzed overall quality of life (e.g., Huang & Zhao, 2020; Kivi et al., 2020; Recchi et al., 2020; Teufel et al., 2020; Zacher & Rudolph, 2020). This research examines how level of satisfaction with the government is associated with levels of negative emotional anxiety and well-being for social workers in South Korea during the COVID-19 crisis.

2.3 | Response to COVID-19, social workers’ psychological state, and the mediating role of satisfaction with government

In the context of social welfare facilities in South Korea, the response to COVID-19 can be classified largely into two categories. First is the category of preventive measures for COVID-19 in social welfare facilities, the purpose of which is to prevent the spread of infection throughout facilities and to limit access of virus carriers. Social welfare facilities have to comply with strict government guidelines; if social welfare facilities violate guidelines, then corresponding penalties are imposed. The second category in COVID-19 countermeasures is training related to infectious disease response in social workers. Unlike viruses that have emerged in modern society, COVID-19 is characterized by a very high likelihood to escalate and requires knowledge to successfully mitigate an epidemic (Koffman et al., 2020). Social workers in South Korea have undergone various trainings to obtain information related to COVID-19 for individual facilities under the leadership of the government.2
South Korean COVID-19 prevention measures can be associated with subjective conditions for social workers (e.g., Alkhamees et al., 2020). In the early stage of the pandemic, COVID-19 precautions in China (including wearing of protective face masks) showed potential to have positive effects on human psychology (e.g., Cheng et al., 2020; Wang et al., 2020). Previous research conducted in medical workers confirms that sufficient personal protective equipment (PPE) helps individuals to feel more protected and to lessen the fear of infection (e.g., Delgado et al., 2020; Smith et al., 2020; Zhang et al., 2020).

Training that provides information and facilitates practical countermeasures related to COVID-19 is associated with the psychological state of social workers. Empirical studies have shown ambivalent associations between the amount of information about COVID-19 and the psychological state of information consumers (e.g., Ko et al., 2020; Shreffler et al., 2020). One study reports that, if citizens are continuously exposed to risk-related information, then levels of negative emotions are elevated (Garfin et al., 2020). On the other hand, many studies in healthcare workers show that training plays a vital role in empowering them, improving their willingness to work, and increasing life satisfaction during times of epidemic (e.g., Hidiroglu et al., 2010; Stergachis et al., 2011).

Previous studies suggest the need for preventive measures and related education to overcome disaster situations. The working environment is related to the levels of anxiety and stress of workers, and implementation of clear workplace preventive measures increases the level of confidence in responding to infectious diseases, contributing to the protection of workers’ mental health (Marjanovic et al., 2007). Other studies conducted on healthcare workers during the COVID-19 pandemic found that sufficient level of hospital safety preparedness and access to personal protective equipment had a significant effect on mental health, as was reported in the MERS outbreak (Lee et al., 2018; Seo et al., 2020). In addition, healthcare workers who received training in response to infectious diseases had a higher level of psychological stability than those who did not (Hamouche, 2020; Tang et al., 2017; Wong et al., 2007). This is because training improves workers’ understanding of infectious diseases and response measures. Accordingly, several studies have been conducted on associations between responses to COVID-19 and the psychological state of citizens. Nevertheless, research is insufficient in general (Shreffler et al., 2020), and few studies have investigated social workers, in particular. This paper analyzes the associations between psychological states and COVID-19-related preventive measures and training in social workers in South Korea.

In public institutions in Korea, preventive measures against COVID-19 are rooted in the guidelines of the Ministry of Health and Welfare. Training mostly comprises content that recapitulates the information and guidelines provided by the government. The government has provided ongoing support for operation of social welfare facilities during the COVID-19 pandemic. Several measures executed by social welfare facilities cannot be carried out independently. For example, expensive devices used to promote public health and safety such as thermal imaging cameras require government support. Furthermore, provision of information on social welfare facilities is based on government guidelines. Mass information on COVID-19 is produced based on the opinions of infectious disease experts, and this information is distributed in a manner certified by the government. In conclusion, education for provision of information and preventive measures carried out in social welfare facilities is directly associated with the sanctioned countermeasures of the government.

Preventive measures and training are indicators of government policy implementation, and satisfaction with the government is an indicator showing people’s evaluation of outcomes of COVID-19 policies. Therefore, it can be hypothesized that the levels of preventive measures and training performed by social welfare facilities will have a positive influence on the psychological state of social workers via the positive mediating effects of level of satisfaction with the government.

### 3 | METHODS

#### 3.1 | Research design and measures

This study aimed to elucidate the associations between response to COVID-19 in social welfare facilities and the psychological state of social workers, as well as the potential mediating roles of satisfaction with the government. Based on the discussion above, this study established the following hypothesis:

- **H1**: The level of satisfaction with the government is positively associated with the level of negative emotionality.
- **H2**: The number of preventive measures is positively associated with the level of negative emotionality.
- **H3**: The number of training is positively associated with the level of negative emotionality.
- **H4**: The level of satisfaction with the government is positively associated with the level of well-being.
- **H5**: The number of preventive measures is positively associated with the level of negative emotionality, but the relationship is mediated by satisfaction with the government.
- **H6**: The number of training is positively associated with the level of negative emotionality, but the relationship is mediated by satisfaction with the government.
- **H7**: The number of preventive measures is positively associated with the level of well-being.
H8: The number of preventive measures is positively associated with the level of well-being, but the relationship is mediated by satisfaction with the government.

H9: The number of training is positively associated with the level of well-being.

H10: The number of training is positively associated with the level of well-being, but the relationship is mediated by satisfaction with the government.

Response to COVID-19 in social welfare facilities, which are exogenous variables, consists of preventive measures and training of facilities. The psychological state of social workers, the dependent variable, was divided into negative emotionality and well-being. Mediating variable is satisfaction with the government on infectious disease response. Figure 1 shows the conceptual framework of this study.

3.1.1 | Demographic characteristics

Demographic information regarding gender, age, education level, and employment status were obtained as control variables. Final education attainment was investigated and then it was recoded as education level, divided into 2 categories: junior college graduation and below; 4-year college graduation and higher. Employment status was divided into regular and non-regular workers.

3.1.2 | Independent variables

Preventive measures and training were measured by modifying the questionnaire used in OHCOW (2020) according to the situation in South Korea. First, preventive measures on the infectious disease were measured with an 11-item. Respondents were asked to indicate the actions in place at the facility, either “there is,” “no,” or “not applicable (N/A).” Of the 11 preventive measures, the sum of “there is” was divided by the total measures except for those that were answered as N/A. For example, if one sample responded that 1 was “N/A,” 6 were “there is,” and 4 were “no,” this sample was calculated as 0.6 by dividing 6 into 10. Therefore, the range of preventive measures is from a minimum of “0” to a maximum of “1.” Second, training on the infectious disease response was measured by the sum of the types of training that participated. The range of training is from a least of “0,” which means no training experience, to a most of “5,” participated all kinds of training.

3.1.3 | Dependent variables

Negative emotionality (OHCOW, 2020) and well-being (WHO, 1998) were measured as indicators of the psychological state of social workers. First, negative emotionality consists of three items: anxiety, depression, and concern caused by COVID-19. Respondents were asked to indicate the extent to which they were feeling at that moment along a 7-point Likert scale ranging from 1 (not at all) to 7 (very serious). Second,

\[ \text{FIGURE 1} \quad \text{The conceptual framework} \]

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3The 11 preventive measures are as follows: (1) body temperature checks; (2) attaching antibiotic films to the elevator; (3) installing partitions/coverings between desks or specifying individual positions for maintaining distances; (4) flexible work system (including remote work); (5) providing disinfectants (e.g., hand sanitizer); (6) managing personal hygiene including wearing masks; (7) regular ventilation—more than once every couple of hours; (8) regular professional disinfection—more than once every month; (9) regular disinfection and cleaning of surfaces (e.g., desks, doorknobs); (10) preparing quarantine places for suspected cases; and (11) returning home for employees who show a range of respiratory symptoms including fever (37.5°C and above), cough and sore throat.

4The 5 types of training are as follows: (1) general information on COVID-19; (2) how to put on/off protective clothing; (3) crisis response manual for social workers; (4) methods for teaching vulnerable groups about COVID-19 and personal hygiene measures; and (5) guidelines on online work for providing contact-free social services.
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this study modified and used the 5-item World Health Organization Well-Being Index (WHO-5) to assess the subjective psychological well-being of social workers. The WHO-five items are: (a) "I have felt cheerful and in good spirits," (b) "I have felt calm and relaxed," (c) "I have felt active and vigorous," (d) "I woke up feeling fresh and rested," and (e) "My daily life has been filled with things that interest me." Respondents were asked to rate how well each of the 5 statements applied to them considering the past month. Each item was scored from 1 (none of the time) to 7 (all of the time).

3.1.4 Mediating variables

Satisfaction with the government on infectious disease response was measured in 6 items. The questionnaire was reconstructed according to the purpose of this study by referring to Conway et al. (2020). Respondents were asked to rate their satisfaction levels on 6 questions (see Table 1). Satisfaction levels for each item were assessed on a 7-point scale ranging from 1 (very unsatisfied) to 7 (very satisfied).

3.1.5 Factor analysis

Table 1 shows the results of Cronbach's α coefficients, EFA(exploratory factor analysis), and CFA(confirmatory factor analysis), conducted using the SPSS version 20 and AMOS version 20. All reliability and validity levels were appropriate for the analysis. All factor loadings from an EFA (with varimax rotation) were above 0.7, indicating adequate construct validity. Cronbach's alpha analysis was conducted to verify the reliability of the classified indicators through EFA. All values ranged from 0.850 to 0.938, which means a high level of internal consistency. CFA was conducted subsequently, and the results of the CFA estimation were accepted by CMIN/DF = 2.732.
RMSEA = .072, CFI = .969, NFI = .953, and IFI = .970. All of the standardized factor loadings were comparatively high, ranging from .68 to .95.

3.2 | Mixed-methods and data collection

Two types of data collection were undertaken in terms of a mixed-methods: (a) a structured questionnaire for quantitative analysis and (b) interviews to supplement the results of survey analysis. The mixed-methods can take advantage of both methodologies by supplementing characteristics that cannot be confirmed by quantitative data through qualitative data (Greene, 2007; Johnson & Christensen, 2000). This study is for social workers working at social welfare facilities in Incheon Metropolitan City, located next to Seoul Metropolitan City, the capital city of South Korea. This city has established an emergency response system to dealing with COVID-19 in the field of social services, centering on the competent departments of Incheon City Hall. For example, social welfare facilities and public institutions such as departments in charge of social welfare facilities and public health centers formed a cooperative system to establish an emergency contact system. By studying the case of Incheon Metropolitan City, where the role of the government is emphasized, it is expected to be able to verify the mediating role of satisfaction with the government in the association between the response of social welfare facilities to COVID-19 and the psychological state of social workers.

The survey was conducted on social workers in Incheon Metropolitan City between August 6 and September 7, 2020. To determine the minimum required sample size, a priori power analysis was performed using G*Power 3.1.9.7 (Faul et al., 2009). Using 22 predictors, a minimum level of power of 0.95, a medium effect size as $f^2 = 0.15$, and a 0.05 alpha level, the target sample size was reported to be 230. To recruit a large number of participants, a link to the online survey and a file to the offline survey was distributed with the cooperation of the Welfare Policy Division of the Incheon Metropolitan City Hall and social welfare associations. The researchers explained the purpose of the survey in consideration of ethical aspects to its respondents and stated that participation must be voluntary. It was specified that the collected data will not be used for any purpose other than research, and that personal information would remain confidential. As of 2020, there was a total of 4,150 social workers in Incheon Metropolitan City, and 335 social workers participated in the survey. The analysis was conducted on 332 people, excluding 3 people who were careless in responding.

Semi-structured interviews with 24 social workers were conducted from March to September, 2020, to collect specific experiences and opinions on COVID-19 response. The interviewees were selected after being recommended by a social worker-related association in Incheon. Then, a snowballing method was applied to recruit new participants through recommendation of existing respondents. Interviews were basically taken online or by phone, but preventive measures were followed when carrying out face-to-face interviews. Before the interview, each participant received an open-ended questionnaire by e-mail and was informed that the interview could be used for research. The type of social welfare facilities and positions of the interviewees are diverse. Interviews were initiated with free conversation and gradually moved on to meaningful topics for research (Riessman, 1993). While conducting interviews for 6 months, triangulation of the study was sought by accompanying a member-checking process in which the contents of the prior interviews were confirmed by other interviewees (Lincoln & Guba, 1985: 314). All interviews were audio-recorded, transcribed, and continuously compared with the survey results.

4 | RESULTS

4.1 | Descriptive statistics

Table 2 presents the demographic characteristics of the survey sample. Female respondents accounted for 64.8% (215), which was more than male respondents (35.2%, 117). Most of the respondents were regular workers (86.5%, 287) and 23 respondents (6.9%) were non-regular workers. Half of the respondents were staff/team members (50.0%, 166), and manager/team leaders were the second highest with 31.3% (104). More than half of the respondents were from 4-year college graduates (58.1%, 193). The average working period of social welfare facilities currently working was 4.9 years, and that of total social welfare fields was 8.6 years.

The result of frequency analysis of preventive measures and training on COVID-19 response are summarized in Table 3. The social welfare facilities where respondents working took various preventive measures, but the flexible work system was not applied to many facilities. All preventive measures were carried out by more than 90% of respondents, except for attaching antibiotic films to

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5 A total of 22 predictors consist of 11 for preventive measures, five for training and six for satisfaction with the government.

6 The questionnaire consisted of (1) the current COVID-19 response status of the social welfare facility and (2) opinions on the government’s policies and communication for COVID-19 response.
the elevator (78.4%, 181) and preparing quarantine places (82.5%, 254). The experience of training of social workers varied depending on the contents of the training. More than 70% (236) took the training on general information about COVID-19, but more than 90% responded that they had no experience in training how to put on/off protective clothing. The second most experienced training was the crisis response manual (58.1%, 193), followed by methods for teaching vulnerable groups about COVID-19 and personal hygiene measures (41.9%, 139).

| Information                                                      | Respondents (N) | Percent (%) |
|------------------------------------------------------------------|-----------------|-------------|
| Gender                                                           |                 |             |
| Female                                                           | 215             | 64.8        |
| Male                                                             | 117             | 35.2        |
| Age groups                                                       |                 |             |
| 20–29                                                            | 63              | 19          |
| 30–39                                                            | 129             | 38.9        |
| 40–49                                                            | 91              | 27.4        |
| 50–59                                                            | 43              | 13          |
| Older than 60                                                    | 6               | 1.8         |
| Final education attainment                                       |                 |             |
| Middle school and below                                          | 0               | 0           |
| High school graduate                                             | 10              | 3           |
| Junior college graduate                                          | 66              | 19.9        |
| 4-year college graduate                                          | 193             | 58.1        |
| Graduate school and above                                        | 63              | 19          |
| Employment status                                                |                 |             |
| Non-regular worker                                               | 23              | 6.9         |
| Regular worker                                                   | 287             | 86.5        |
| No answer                                                        | 22              | 6.6         |
| Position                                                         |                 |             |
| President                                                        | 22              | 6.6         |
| Executive                                                        | 38              | 11.5        |
| Manager                                                          | 104             | 31.3        |
| Staff                                                            | 166             | 50          |
| Other                                                            | 2               | 0.6         |
| Working period of social welfare facilities currently working    |                 |             |
| Less than 1 year                                                 | 54              | 16.3        |
| 1–3 years                                                        | 83              | 25          |
| 3 – 5 years                                                      | 55              | 16.6        |
| 5 – 7 years                                                      | 33              | 9.9         |
| 7 – 9 years                                                      | 28              | 8.4         |
| More than 9 years                                                | 60              | 18.1        |
| No answer                                                        | 19              | 5.7         |
| Working period of total social welfare fields                    |                 |             |
| Less than 3 years                                                | 50              | 15.1        |
| 3 – 6 years                                                      | 78              | 23.5        |
| 6 – 9 years                                                      | 54              | 16.3        |
| 9 – 12 years                                                     | 43              | 13          |
| 12 – 15 years                                                    | 37              | 11.1        |
| More than 15 years                                               | 49              | 14.8        |
| No answer                                                        | 21              | 6.3         |
4.2 Mean, standard deviation (SD), and correlation among the variables

Table 4 shows the result of mean, standard deviation, and correlation of latent variables. The preventive measure averaged 0.87 and the training experience averaged 2.11 out of the 0 to 5 points range. The satisfaction with the government averaged 4.05, which means neither satisfied nor dissatisfied. Negative emotionality was slightly higher than the normal with an average of 4.99, and well-being was slightly lower than the normal with an average of 3.42. All correlation values ranged from 0.007 to 0.385, confirming that there is no multicollinearity among variables included in the model.

4.3 Structural model with the mediating variable

Structural equation modeling (SEM) was used in this study to investigate the associations among variables. The model showed a good fit of data ($\chi^2$(156) = 416.889 ($p = .000$), RMSEA = 0.071, CFI = 0.937, NFI = 0.904, and IFI = 0.937). The four control variables, gender, age,
education level, and employment status, were included in the model and showed no significant results in both negative emotionality and well-being. Results of the SEM are presented in Figure 2.

Satisfaction with the government, the mediating variable, was identified as a significant factor in lowering the negative emotionality ($\beta = -0.288, t = -4.550$) and improving well-being ($\beta = 0.383, t = 6.084$). So, hypotheses 1 and 6 were supported. The positive associated variable for satisfaction with the government was not training ($\beta = 0.027, t = 0.472$) but preventive measures ($\beta = 0.223, t = 3.818$). Satisfaction with the government served as a mediating role between preventive measures and two dependent variables, confirming that hypotheses 3 and 8 were supported. However, hypotheses 5 and 10 were rejected since there was no significant mediating effect between training experience and two dependent variables.

In the model, preventive measures were negatively associated with well-being ($\beta = -0.133, t = -2.396$), rejecting hypothesis 7. The result showed that with more training, negative emotionality increased rather than decreased ($\beta = 0.148, t = 2.586$), which rejected hypothesis 4. Also, there was no significant direct association between preventive measures and negative emotionality ($\beta = 0.042, t = 0.718$), and between training and well-being ($\beta = 0.048, t = 0.892$). Therefore, H2 and H9 were rejected. The results of the hypotheses testing are summarized in Table 5.

### 5 | DISCUSSION

This study focuses on social workers as a group of frontline workers against COVID-19, but who have not been spotlighted so far. It highlights the importance of satisfaction with the government regarding infectious disease control for its mediating role between preventive measures on the part of facilities and the psychological state of social workers. The results show that higher levels of preventive measures in facilities increase level of satisfaction with the government, improving the psychological state of social workers. These findings are consistent with data obtained in interviews. Some interviewees showed dissatisfaction with the response of the government to COVID-19 in not allocating funds or goods to social service fields initially, causing unavailability of preventive equipment such as masks and hand
TABLE 5 The results of the hypothesis testing

| Hypothesized path                                                                 | Testing results |
|----------------------------------------------------------------------------------|-----------------|
| H1: Preventive measures → Negative emotionality                                   | Supported       |
| H2: Training → Negative emotionality                                               | Not supported   |
| H3: Training → Well-being as mediated by SG                                        | Supported       |
| H4: Preventive measures → Well-being as mediated by SG                             | Supported       |
| H5: SG → Well-being                                                                | Not supported   |
| H6: Preventive measures → Well-being                                               | Not supported   |
| H7: Training → Negative emotionality as mediated by SG                             | Not supported   |
| H8: Preventive measures → Negative emotionality as mediated by SG                  | Not supported   |
| H9: Preventive measures → Well-being as mediated by SG                             | Supported       |
| H10: Preventive measures → Well-being                                               | Supported       |
| H11: Training → Well-being as mediated by SG                                       | Not supported   |

Abbreviation: SG, Satisfaction with the Government.

sanitizer in some facilities. As a result, the social workers at these facilities were afraid and anxious for their safety. Also, some interviewees experienced situations in which facilities did not fully comply with the guidelines of the disease control authorities. Most of these interviewees complained that because the government did not effectively correct these situations of non-compliance, they could not feel confident in their health and safety.

This finding is consistent with results of previous research showing that the greater is the government response to COVID-19, the better is the psychological state of citizens (Bol et al., 2020; Sibley et al., 2020). Government public policies to mitigate the spread of COVID-19 have been emphasized worldwide (WHO, 2020). Through interviews, the reasons for the positive impact of high satisfaction with the government on social workers' mental health was analyzed. Social workers reported frustration and anxiety if they thought that social welfare facilities had been pushed out of priority in the budget or resource distribution. Many interviewees complained that social workers were required to provide services but sometimes were unable to obtain COVID protective gear.

Moreover, insufficient communication that does not take into account the field situations added to the emotional difficulties of social workers. One interviewee pointed out that the local authorities adhered to the national regulations without considering the workers. As the application of new rules is enforced in the course of disaster response, inefficient communication and following results such as confusion, conflict, and increased work can have a negative impact on the psychological state of service providers. This finding on the association between level of communication with government officials and mental health of disaster response workers is consistent with previous studies (Goulia et al., 2010; Hearns & Deeny, 2007; Johnson et al., 2005; Soliman et al., 1998; Wilson & Gielissen, 2004).

Interestingly, evidence of adverse associations between preventive measures and well-being and between training and negative emotionality are revealed in the analysis model. First, a path through which a high frequency of preventive measures leads to lower levels of well-being of social workers is identified. This result can be explained as follows: even though preventive measures help to lower the risk of transmission, workers experience increased awareness of COVID-19 due to expanded implementation of preventive measures. In other words, putting workers in a tense and overburdened situation seems to lower their levels of subjective well-being. In contrast, the negative effects of preventive measures on well-being are offset by satisfaction with the government. This is a contrasting finding with recent research, showing a positive relationship between PPE and mental health for healthcare staff during the COVID-19 pandemic (Delgado et al., 2020; Smith et al., 2020; Zhang et al., 2020). This contradiction can be explained by interviews. Some interviewees pointed out that certain preventive measures were implemented nominally in their facilities. In other words, the government was not supervising proper implementation of preventive measures. Also, social workers found it difficult to ask questions about improper measures within the vertical communication structure of the

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7A: Personally, I am afraid of my safety. For example, we deliver meals to the elderly every day. In this process, I encounter other residents and senior citizens, and I am worried that I might get coronavirus, while working. However, there is no enough support for equipment related to preventing infectious diseases.

7B: Actually, the government’s guideline to give 3–4 days off if employees are sick is not being followed at all. In our facility. There is no quarantine room or anything like that either.

7C: The caring home was still operating because it is a place where workers should live with the elderly for 24 h. So, we desperately needed masks but could not get them in times of shortage of masks, even though we were willing to pay for them. I thought that priorities for resource allocation should be established well.

8D: Unfortunately, local authorities are too manual. I said flexibility is needed. But, the local authorities do not listen to us, and they keep saying "follow the manual came from the government." It would be nice if they could gather our opinions and try to change difficult situations. They are not asking our opinion. That is too bad.

8E: One day, my body temperature rose to 37.7, 37.8 degrees (Celsius) at work. I had a slight fever. But there was no talk of taking a break for 3–4 days as instructed, and people just said "oh, your basic temperature is high." So I was skeptical about the use of government guidelines.
facility. Therefore, government must ensure that preventive measures are effective at sites as a mediating role between implementation of preventive measures and social workers’ mental health.

Second, research has shown that levels of negative emotionality increase with worker training. One possible explanation is that information exposure can affect people’s emotions. A prior study suggests that ongoing information exposure to the infectious disease crisis can lead to increased anxiety and heightened stress (Garfin et al., 2020). However, since training is necessary to respond to infectious diseases, efforts should be made to prevent and manage adverse effects in terms of information content and delivery. Another possible explanation is that difficult training protocols can cause negative emotions in social workers. The discrepancy between ideals and realities due to insufficient training content can increase levels of negative emotionality in social workers, which indicates the government’s failure to identify workers’ needs.

The findings of this research suggest policy implications around the “active” response of the government (beyond simply responding “strongly”) during an emergency such as the pandemic. Worldwide, most governments have implemented strong physical distancing policies, such as lockdowns, school closures, restrictions on commercial activities, and prohibition of gathering in public places. In South Korea, social welfare facilities were closed for the first several months in 2020 under the principle of physical distancing, leading to a vicious cycle that left vulnerable people even more vulnerable. This phenomenon occurs in part because the coping capacities of the vulnerable are corroded during disasters, though these same vulnerable people are exposed to various hazards, directly and indirectly, attributable to disasters (Smith, 2006; Wu & Karabanow, 2020). Ironically, at a time when physical distancing is required due to the dangerous nature of COVID-19, the need for face-to-face social services in vulnerable groups increases.

Also, flexible cooperation is required between the government and social welfare facilities. The COVID-19 pandemic has brought about a significant shift in the delivery of social services. Therefore, such difficulties should be considered in the policy-making process. As the central government is focusing more on nationwide control, local municipalities should play an important role in establishing and promoting communication and collaboration on utilizing limited resources among organizations.

Furthermore, support is needed to promote the mental health of social workers. The results show that implementation of preventive measures and training in social welfare facilities have a direct negative impact on the psychological states of social workers. However, since these measures and training are crucial for safety, adverse effects should be managed. The government can implement supplementary policies to alleviate emotional depletion through psychological counseling programs and by supporting psychiatric medical expenses.

6 | CONCLUSION

This study demonstrates that disaster response conditions affect the psychological state of social workers. The results reveal that preventive measures are associated with reduced negative emotionality and increased well-being via higher levels of satisfaction with the government in social workers. When disasters such as pandemics occur, the roles and responses of social workers and the government become important (Streeter & Murty, 1996; Zakour, 2000). Previous studies empirically suggest that the government’s active response to COVID-19 has a significant impact on the emotions and behaviors of citizens (Atlan-Duault et al., 2020; Bol et al., 2020; Liao et al., 2020; Sibley et al., 2020). In particular, higher levels of preventive measures in social welfare facilities were shown to increase levels of satisfaction with the government, and this improved the psychological state of social workers. Without the mediating role of satisfaction with the government, preventive measures directly lowered the levels of well-being. That is, any increase in preventive measures not accompanied by satisfaction with the government had a negative impact on well-being. This particular finding suggests that governments should actively support and manage social welfare facilities during crises such as this one.

This study has academic significance in its emphasis of the importance of policy and social response to reducing disaster vulnerability. During and after disasters, vulnerable people can face greater difficulties, and community care from social workers becomes imperative. This study demonstrates the importance of government policy intervention to strengthen the provision of social service and reduce disaster inequality during the COVID epidemic (Bolin & Kurtz, 2018; Cutter et al., 2003; Flanagan et al., 2011; Singh et al., 2014; Tate, 2012; Thomas et al., 2013). In particular, in the South Korean context of most social welfare facilities receiving funding from the government and having to conform to government policy, the role of the government is even more important.

Three main limitations might have influenced the results and implications of this study. First, the data were collected in the summer of 2020. At that time, six months after the COVID-19 outbreak began, the government’s response to the unprecedented situation might have been immature compared to that in subsequent periods. A second limitation is that the investigation site was limited to Incheon Metropolitan City. Therefore, the implications of this study are difficult to generalize to small cities or rural areas. Finally, although there is a variety of types and characteristics of social welfare facilities, these differences were not examined in this study. This is because the South Korean

12F: It was nice to know how we should change along with environmental changes, but as a social worker, what I hoped to learn was how to provide contact-free social services. It would have been more beneficial if we had informed how to provide contact-free social services to clients with developmental disabilities.
government’s response at the time of the investigation was similar in that most social welfare facilities were closed. However, the government gradually recognized the importance of care, nutrition, and social activities and resumed the provision of services with the consideration of user characteristics. Thus, future research might take into account the specific circumstances and the government policies according to type of social welfare facilities.

For over a year, the COVID-19 pandemic has restricted the lives of citizens. Citizens in lower socioeconomic classes have become more vulnerable due to COVID-19, and inequality is worsening. Apart from the spread of infectious diseases, the conditions for response should be constructed to avoid additional disadvantage to vulnerable groups and their supporters. Mutter (2015: 220) mentions that the outcome of disasters will be unequal to the extent that “the rich win, the poor lose.” Social welfare facilities that mainly deal with the vulnerable can alleviate the aggravation of socioeconomic inequality caused by disasters. In this regard, this study underlines the importance of the government’s active response to the welfare sector and social workers, who have been playing an essential role in the COVID-19 crisis.

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CONFLICT OF INTEREST

No conflicts of interest.

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