

The Relationship of COVID-19 Awareness and Workload among Childcare Teachers in South Korea

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Abstract:- This study was conducted to investigate the relationship between childcare teachers' COVID-19 awareness and workload. The subjects of this study were 125 childcare teachers working at childcare centers located in Seoul and Gyeonggi-do. An online survey was conducted to find out the COVID-19 awareness and workload of childcare teachers. Data analysis was performed using SPSS 22.0. The research results are as follows. First, childcare teachers' COVID-19 awareness was high, and childcare teachers were seriously aware of COVID-19. It was found that the workload of childcare teachers increased in administrative work. Second, there was a significant positive correlation between childcare teachers' COVID-19 awareness and workload. Therefore, it was discussed that it is necessary to find a way to lower the work of childcare teachers.

Keywords:- Covid-19 Awareness, Workload, Childcare Teachers, Childcare Center.

I. INTRODUCTION

As the number of COVID-19 infections increases, the entire world, It has reached a pandemic situation include Korea. In other words, as COVID-19 spreads from Asia to Europe and the America, on March 11, 2020, the World Health Organization (WHO) declared a pandemic with the highest level of 6 risk [1]. The infectious disease caused by COVID-19 is not a simple disease, but it causes changes in life in many areas and is a major cause of personal psychological problems [2]. In other words, due to the implementation of high-intensity social distancing, the number of people complaining of trauma in daily life and interpersonal relationships, stress and anxiety, etc. has increased rapidly, depression and anxiety are deepening as worries and concerns about infectious diseases continue [3][4].

The Korean government has prepared response guidelines to prevent the spread of COVID-19. The childcare center has been temporarily closed due to concerns about the spread of infectious diseases if it is not properly managed due to the nature of young children to stay in groups [5]. However, the COVID-19 response guidelines have steadily increased the use of emergency childcare by deploying additional childcare teachers to take care of infants and young children who need emergency childcare, such as dual-income families [6].

The guidelines for child care centers related to COVID-19 are focused on controlling the access of outsiders, managing fever symptoms, and maintaining distance within the childcare center. The guidelines for childcare centers are as follows. In principle, entry of outsiders of the childcare center

is prohibited. If outsiders are required to enter, check their temperature and practice hand sanitizing and wearing a mask. In case of suspected symptoms such as cough and fever, young children were allowed to go home and refrain from going to childcare center. Childcare teachers excluded their work and asked them to check their temperature at least twice a day. In addition, childcare teachers disinfect classrooms and toys daily. If it is not possible to maintain a certain distance with young children, such as snack and lunch time, install a personal screen. In accordance with the COVID-19 response guidelines, the duties of childcare teachers have been added [7].

These emergency childcare and infectious disease response guidelines due to COVID-19 have changed the daily life of childcare centers in a negative way in many areas. First, in terms of operation and employment, delays in admission to the new school year and fears due to COVID-19 increased the number of students giving up on admission. As a result, not only difficulties in operation, but also the number of closed childcare centers increased. This affected not only the management difficulties of childcare centers, but also the employment problems of childcare teachers. Childcare teachers felt the threat of dismissal and became psychologically helpless, which is considered a serious issue that can lead to job loss and job insecurity [8].

The additional workload caused by COVID-19 also caused psychological burden and discomfort for childcare staff. Various countermeasures guidelines to prevent the spread of infectious diseases (e.g., crisis response at daycare centers, wearing masks and living with infants all day long) have low immunity and awareness of infectious diseases and the psychological burden of childcare staff working in daycare centers, a group facility for infants and toddlers due to weak infants and toddlers increased, and created an environment that could be more easily exposed to stress [9]. This is because childcare teachers take on the responsibility of protecting young children from infectious diseases and are responding according to their perceived risk of infection. According to Kim, a high perception of infection risk, which has the potential to cause psychological stress, raises the awareness of stress and may cause negative emotional formation [10].

This study aims to improve the understanding of childcare sites caused by Corona by examining the relationship between childcare teachers' Corona-19 awareness and workload. Therefore, the research questions set in this study are as follows. First, what about the Corona-19 awareness and workload of childcare teachers? Second, what is the relationship between Corona-19 awareness and workload?

II. LITERATURE REVIEW

A. COVID-19 Awareness

Perception of infection risk appears at different levels depending on the individual and is a perception of the severity of the risk of infectious disease. This can increase participation in decision-making and draw attention to overall risk factors [11]. COVID-19 is SARS-CoV-2, which is 75-80% similar in gene sequence to SARA-CoV, the causative agent of Severe Acute Respiratory Syndrome (SARS) that spread in China in 2002. syndrome [12]. It has been reported that various respiratory infections ranging from mild to severe such as fever, cough, malaise, shortness of breath and pneumonia appear as typical symptoms, as well as sputum, sore throat, headache, hemoptysis, nausea, and diarrhea. There are also cases of infection without these symptoms. So far, it is known as a transmission route through droplets (saliva), contact, and it is known to spread through droplets generated when coughing or sneezing, or from touching an object contaminated with the coronavirus and then touching your eyes, nose, and mouth. Therefore, the Ministry of Health and Welfare actively recommends adherence to standardism, splashism, and contactism [13]. The incubation period for COVID-19 is 1 to 14 days, with an average of 4 to 7 days, and no vaccine or treatment has been developed so far, so compliance with preventive rules such as proper hand hygiene and wearing a mask is emphasized [13]. Corona-19 awareness means awareness of the risk of COVID-19 infection.

B. Workload

Changes have occurred in childcare settings due to the guidelines for childcare centers in preparation for the COVID-19 outbreak and the increase in quarantine work to prevent the spread of infectious diseases. Leach stated that excessive work can act as a teacher's job stress [14]. Therefore, it is necessary to examine the workload of childcare teachers due to COVID-19. The age of infants and toddlers cared for by daycare centers is between 0 and 5 years old, and there is a possibility that dirty foreign substances may be transmitted to infants and toddlers in the process of exploring the surroundings. In particular, when an infectious disease such as COVID-19 occurs, the immune system is weak, making it more susceptible to transmission [15]. In order to prevent the spread of COVID-19, nursery teachers should instruct young children on proper infection prevention rules and implement quarantine measures such as daycare facilities, picture books, and teaching aids. Additional duties of childcare teachers due to COVID-19 include inspection and inspection of infection control system in childcare centers, use of childcare masks, environmental hygiene management, management when entering and entering childcare centers, measures to be taken when symptomatic persons are found, quarantine and infection prevention before reopening, etc. These are related paperwork [16].

III. METHODOLOGY

A. Method and Procedure of Sampling Subjects

This study was conducted with 125 childcare who worked at childcare center in Seoul and Gyeong-gi do. They are all

female teachers. This survey was conducted online in August 2021. The demographic characteristics of the study subjects are shown in Table 1 below.

Category		N	%
Age	20s	31	24.8
	30s	44	35.2
	40s	27	21.6
	50s	23	18.4
Marital Status	Single	84	67.2
	Married	41	32.8
Educational Background	High School	13	10.4
	College (2 yrs)	43	34.4
	University (4 yrs)	45	36.0
	Graduate School	24	19.2
Teaching Experience	Under 1 yr	19	15.2
	1-3 yrs	36	28.8
	3-5 yrs	27	21.6
	5-10 yrs	25	20.0
	Over 10 yrs	18	14.4
Total		125	100

Table 1 : Demographic Information

B. Measurement Instruments

- *COVID-19 Awareness* To measure the COVID-19 awareness of childcare teachers, the tool of Park et al. [17] was modified and used. Covid-19 awareness refers to an individual's perceived risk of contracting Covid-19. The sub-factors are sensitivity (5 items) and severity (5 items). Measurements were made on a Likert 5-point scale. The Cronbach's α of the scale shown in this study was .91.
- *Workload* The workload of childcare teachers was modified and supplemented by Lee's scale [16]. This is about the workload of childcare teachers due to COVID-19. The sub-factors consist of quarantine work (3 items), childcare work (3 items), and administrative work (3 items), with a total of 15 items. Measurements were made on a Likert 5-point scale. The Cronbach's α of the scale shown in this study was .93.

C. Analysis

The purpose of this study was to examine the relationship of COVID-19 awareness and workload among childcare teachers. For statistical analysis, the collected data was processed using SPSS for Window 22.0. Analysis methods were reliability coefficient calculation, frequency analysis, descriptive statistical analysis, and correlation analysis.

IV. FINDING AND DISCUSSIONS

A. COVID-19 Awareness and Workload of Childcare Teachers

Table II shows the results of childcare teachers' Corona-19 awareness. 'Living in a space with many people increases the risk of developing COVID-19 infection.', 'Young children and the elderly are more susceptible to COVID-19 infections.', 'If I get a COVID-19 infectious disease, my activities (social activities, hobbies, etc.) will be greatly disrupted.', 'If I get a COVID-19 infection, it will affect my family.', 'If I get a

COVID-19 infection, my daily life will be very difficult.', 'If I get COVID-19 infection, it will have more serious consequences than other diseases (eg cancer, stroke).', 'COVID-19 is a very dangerous disease.' appear. In other words, childcare teachers perceive COVID-19 as serious. On the other hand, they strongly disagreed about 'I am afraid of contracting the COVID-19 infection.'

Contents	M	SD	description
<i>Sensibility</i>	2.84	.48	Moderate
Living in a space with many people increases the risk of developing COVID-19 infection.	3.56	.62	Agree
Young children and the elderly are more susceptible to COVID-19 infections.	3.50	.71	Agree
I have a high chance of contracting the COVID-19 infection.	2.98	.87	Moderate
Even healthy people can be at risk from infection with COVID-19.	1.94	.73	Disagree
I am afraid of contracting the COVID-19 infection.	1.67	.84	Strongly Disagree
<i>Seriousness</i>	3.72	.59	Agree
If I get a COVID-19 infectious disease, my activities (social activities, hobbies, etc.) will be greatly disrupted.	3.67	.69	Agree
If I get a COVID-19 infection, it will affect my family.	3.52	.75	Agree
If I get a COVID-19 infection, my daily life will be very difficult.	3.74	.68	Agree
If I get COVID-19 infection, it will have more serious consequences than other diseases (e.g. cancer, stroke).	3.61	.81	Agree
COVID-19 is a very dangerous disease.	3.78	.65	Agree

Table 2 : COVID-19 Awareness of Childcare Teachers

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The results of the daycare teacher's workload are as follows. Teachers said that 'Disinfecting teaching materials' were frequently used in sanitation work. Childcare work was all moderate. Administrative work responded often, which indicates that administrative work has increased during the work of childcare centers due to COVID-19.

Contents	M	SD	description
<i>Sanitation Work</i>	3.23	.75	Moderate
Wearing a mask	2.94	.96	Moderate

Disinfecting teaching materials	3.44	.78	Often
Quarantine service	3.33	.84	Moderate
<i>Childcare Work</i>	2.87	.93	Moderate
The burden of childcare work related to infection prevention and response rules	2.87	.94	Moderate
Daily guidance (personal hygiene guidance in accordance with infectious disease regulations, etc.)	2.86	.98	Moderate
Aggravation of paperwork (COVID-19 monitoring, thermal check preparation, etc.)	2.89	.83	Moderate
<i>Administrative Work</i>	3.68	.77	Often
Additional paperwork (COVID-19 monitoring, thermal check writing, etc.)	3.71	.92	Often
The burden of preparing for family-related activities	3.56	.77	Often
Parent counseling	3.65	.84	Often

Table 3: Workload of Childcare Teachers

Sample of a Table footnote. (Table footnote)

B. Descriptive Statistics

The results of examining the average of COVID-19 awareness and workload of childcare teachers are as follows. The mean of COVID-19 awareness was 3.09 (SD=.43), and the mean of sub-factors was Sensibility 2.84(SD=.48) and seriousness 3.72(SD=.59). The average of workload was 3.25 (SD=.75), and by sub-factors, sanitation work was 3.23 (SD=.75), childcare work 2.87 (SD=.93), and administrative work 3.68 (SD=.77).

	3.23	M	SD
COVID-19 Awareness	Sensibility	2.84	.48
	Seriousness	3.72	.59
	Total	3.09	.43
Workload	Sanitation Work	3.23	.75
	Childcare Work	2.87	.93
	Administrative Work	3.68	.77
	Total	3.25	.75

Table 4 :Result of Descriptive Statistics

C. Correlation analysis between COVID-19 awareness and workload

As a result of examining the correlation between COVID-19 awareness and workload of childcare teachers, a positive correlation was found with r=.505 (p<.05). Also, among the sub-factors of COVID-19 awareness, sensibility showed a significant positive correlation with workload sanitation work

($r=.336$, $p<.001$) and childcare work ($r=.549$, $p<.001$). A significant positive correlation was also found between seriousness and sanitation work ($r=.427$, $p<.001$).

		COVID-19 Awareness		
		Sensibility	Seriousness	Total
Workload	Sanitation Work	.336***	.427***	.438***
	Childcare Work	.549***	.168	.510***
	Administrative Work	.203	.389	.316
	Total	.440	.379	.505*

Table 5 : Result of Descriptive Statistics

* $p<.05$, *** $p<.001$

V. DISCUSSION

This study was conducted to examine the relationship between childcare teachers' COVID-19 awareness and workload. Based on the results of this study, the discussion is as follows.

First, childcare teachers' COVID-19 awareness was found to be highly perceived in seriousness. This result can be said to be consistent with the results of previous studies [16]. It was found that childcare teachers are experiencing changes in their work due to COVID-19 and are seriously aware of the current situation. In addition, the workload was recognized as moderate in the degree of sanitation work and childcare work. However, administrative work was recognized as excessive. In relation to COVID-19, the degree of compliance with the work guidelines must be documented, so it is seen because of overloading administrative work with general work.

Second, there was a significant positive correlation between childcare teachers' COVID-19 awareness and workload. That is, the more serious the childcare teacher perceived the infection of COVID-19, the higher the workload was perceived. This is seen as a result of the addition of hygiene and administrative tasks as well as childcare tasks at the more severe stage of COVID-19 infection.

VI. CONCLUSION

This study confirmed that childcare teachers' COVID-19 awareness and workload had a positive correlation with each other. Childcare teachers have a lot of work to take care of young children for long periods of time, and due to COVID-19, they have to deal with hygiene and administrative work. Since the quality of childcare teachers is closely related to the quality of childcare, administrative support is needed so that childcare teachers can focus more on childcare by reducing the duties of childcare teachers. For example, part-time working, increase in the number of childcare teachers, and simplifying documents for overlapping tasks will help reduce the workload of childcare teachers.

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