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## The Effects of Call Center Counselors' Job Stress on Health Perception and Resilience (In the COVID19 Pandemic)

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Received: 18-June-2022

Revised: 20-September-2022

Accepted: 28-September-2022

### Abstract

The purpose of this descriptive survey research is to find the effects of call center counselors' job stress on their health perception and resilience, and the relations between these three variables. The study subjects were 201 counselors working at K call center in S city. For data analysis, SPSS WIN 23.0 program was used to conduct t-test, ANOVA, Pearson's correlation coefficient, and Multiple Regression. According to the research, their work department positively and significantly affected health perception ( $\beta=.093$ ,  $p=.007$ ), whereas their working period negatively and significantly influence job stress ( $\beta=-.057$ ,  $p=.008$ ) and health perception ( $\beta=-.068$ ,  $p=.005$ ). With regard to correlations between variables, job stress had negative correlations with health perception ( $r=-.259$ ,  $p<.001$ ) and resilience ( $r=-.264$ ,  $p<.001$ ), and health perception had a positive correlation with resilience ( $r=.398$ ,  $p<.001$ ).

Based on the results, this study proposes the strategy to increase job proficiency levels, to introduce shift work system, and improve resilience through health perception in order to reduce job stress.

**Keywords:** Call center counselor, Job stress, Health perception, Resilience

### 1. INTRODUCTION

Workers in charge of customer service experience physical and psychological health disorders, such as customers' abusive language or attacks. In particular, call center counseling is a typical type of emotional labor. Therefore, call center counselors experience a variety of stress due to excess workload and their organizational demand for the education about customer respect (Bok, M. J., 2012). Jobs at call center are labor-intensive, and the quality of service for customers depends on counselors' kind and polite attitudes. For this reason, they feel emotion suppression (Shim, J. H., 2020). With the long term continuance of COVID-19, call center counselors have been required to wear masks in accordance with COVID-19 prevention guidelines. Telephone counseling service is dependent on their personal efforts and competency. In such conditions, their job stress can cause psychological burnout (Kim, Y. S., 2021).

Job stress leads to lowering organizational members' job satisfaction and job commitment (Chang, S. J. et al., 2005., Wu, X., et al., 2017). Excess job stress can cause physical disorders like cardiac and vascular diseases, and psychological problems like social withdrawal (T. Chandola et al., 2005). Therefore, it is required to look into workers' job stress situations carefully and to establish and manage work environments to solve the problems. Given that most counselors are female, it is considered that they are more exposed to unreasonable demands and abusive language than male workers. According to the research on the women with emotional labor by Lee, E. H. (2022), female workers doing emotional labor perceive that their personality is neither respected nor protected in their poor labor circumstance.

Based on good work ethics, counselors provide their service for customers. Nevertheless, they face limitations in responding to customers kindly all the time. Therefore, it is necessary to manage job stress and improve work conditions in the organizational dimension.

Resilience refers to the dynamic change of overcoming difficulties and recovering resiliently in one's ordeal or difficult situation, and means one's ability to deal with stress situations well (Masten, A. S., 2001., Suniya S. L. et al., 2000). Grogan, K., et al. (2021) explain that resilience is the dynamic relationship influenced by individuals and their living environments. In other words, resilience is the general phenomenon occurring in

human adaptation system. If this system is normal, it is possible to overcome severe adversity staunchly (Ann S. M., 2001). Therefore, it is required to find the influential factors on call center counselors' resilience and to design a program for handling the factors.

Health promotion behavior is dependent on one's perception of health status. For this reason, one's perception of health is of importance. People's behavior is based on their perception of health. It indicates that health perception is important for health care (Jung, S. H., 2016). According to the research by Lee, M. K. & Oh, J. Y. (2022), the more health perception, the better sleep quality. It means that people try to find a way to keep their healthy lives as they perceive their own health (Kim, H. j. et al., 2016), and thus make their efforts to reduce stress. To do that, it is important to devise a method of increasing resilience and to suggest the direction for solving problems.

Therefore, this study tries to look into call center counselors' job stress, health perception, and resilience, to find the effects of job stress on health perception and resilience, and thereby to provide a fundamental material for the healthy lives of call center counselors who experience physical and psychological burnout in the COVID-19 pandemic.

## **2. METHODS**

### **2.1. Study design**

This study is the descriptive survey to find the effects of call center counselors' job stress on their health perception and resilience.

### **2.2. Study subjects**

The subjects of this study are counselors working at K call center in S city, who understand the purpose of this study and voluntarily agreed on their participation. All of them are regular workers, so that there is no difference in employment type. For the estimation of the subjects, G\*Power 3.1.9.7 program was used. When significance level .05, statistical power  $(1-\beta)$  90%, and effective size .15 were applied, the minimum number of samples was 162. In consideration of dropout rate, structured questionnaire copies were distributed to 210 persons. Among the questionnaire copies collected, 19 with insincere answers were excluded. Finally, 201 copies were analyzed as data.

### **2.3. Study tools**

As a measurement tool of Korean job stress, Korean Occupational Stress Scale (KOSS-SF) developed by Chang, S. J. et al.(2005) was used. It is based on 4-point Likert scale. The higher score, the more job stress. At the time of the development, Cronbach's  $\alpha$  was .79. In this study, Cronbach's  $\alpha$  was .79 as well. As a tool of health perception was used the scale of Lee, K. S. et al.(1998), who excluded questions with low reliability from the Health Perception Questionnaire (HPQ) developed by JE Ware, J. (1976). It is also based on 4-point Likert scale. The higher score, the more health perception. In the research by Lee, K. S. et al.(1998), Cronbach's  $\alpha$  was .85. In this study, Cronbach's  $\alpha$  was .80. As a tool of resilience was used the scale reorganized Jung, D. B. (2014) on the basis of previous studies. It is composed of a total of 15 questions in three categories: controllability, positiveness, and realistic sociability. Each question is based on 5-point Likert scale. The higher score, the more resilience. In the research by Jung, D. B. (2014), Cronbach's  $\alpha$  was .89. In this study, Cronbach's  $\alpha$  was .91.

### **2.4. Data collection method**

This study was conducted after the deliberation of Institutional Review Board at K University (IRB 2021-013). Data had been collected from Dec. 25, 2021 to Mar. 30, 2022. The questionnaire used in this study is a self-reported questionnaire that requests participants to fill in the questionnaire directly. At the time of data collection, it was hard to collect questionnaire copies in face-to-face contact under the COVID-19 prevention guidelines. Each questionnaire was sealed and delivered to participants. Each one of the self-reported questionnaire copies was put in its enclosed envelope, sealed, and sent back by post.

## 2.5. Data analysis method

The collected data were analyzed with SPSS WIN 23.0. The subjects' general characteristics were analyzed in descriptive statistics and frequency analysis. The relations between general characteristics and variables were analyzed in t-test and ANOVA. As a post-hoc test, Scheffe analysis was conducted. Multiple Regression was conducted to find the effects of job stress on health perception and resilience. The correlations between job stress, health perception, and resilience were analyzed in Pearson's correlation coefficient.

## 3. RESULTS

### 3.1. General characteristics

Of the study subjects, 146 (72.6%) were female. With regard to age, 34 (16.9%) were in their 20s, 67(33.3%) in their 30s, 80 (39.8%) in their 40s, and 20 (10.0%) in their 50s; those in their 30s and 40s accounted for high rates. Regarding position, 84.1% were the staff. With regard to working period, 42 (20.9%) were in 1-3 years of service, 50 (24.9%) in 3-5 years; 64(31.8%) in 5-10 years, and 45 (22.4%) in over 10 years. Regarding work department, Inbound accounted for 42.3%, Outbound 42.8%, and Blending 14.8%. With respect to monthly average income, 64.2%, the highest rate, earned 2-3 million wons on average monthly

(Table 1).

### 3.2. Differences according to general characteristics

The relations between gender, position, and monthly average income, and three variables were not statistically and significantly different. As for age, job stress ( $F=3.73$ ,  $p=.031$ ) and health perception ( $F=3.73$ ,  $p=.012$ ) were statistically and significantly different; as for c, job stress ( $F=2.71$ ,  $p=.046$ ) and health perception ( $F=2.78$ ,  $p=.042$ ) were statistically and significantly different; as for work department, health perception ( $F=4.64$ ,  $p=.011$ ) was statistically and significantly different. In the post-hoc test on health perception according to work department, health perception was the highest at blending, followed by inbound and outbound in order (Table 1).

### 3.3. Study subjects' job stress, health perception and resilience

The study subjects' job stress, health perception, and resilience were measured. As a result, job stress scored average  $2.31(\pm.29)$  of 4 full points, health perception  $2.74(\pm.33)$  of 4 full points, and resilience  $3.44(\pm.53)$  of 5 full points (Table 2).

### 3.4. Influential factors on job stress, health perception, and resilience

For regression analysis, multicollinearity of variables was analyzed. Tolerance was far larger than 0.1, and VIF was smaller than 10. As a result, there was no problem with collinearity. The influential factors on job stress, health perception and resilience were analyzed. Work department positively and significantly affected health perception ( $\beta=.093$ ,  $p=.007$ ). working period negatively and significantly influenced job stress ( $\beta=-.057$ ,  $p=.008$ ) and health perception ( $\beta=-.068$ ,  $p=.005$ ). No variable was found to influence resilience (Table 3).

### 3.5. Correlations between job stress, health perception and resilience

Job stress had negative correlations with health perception and resilience ( $p<.001$ ). Health perception had a positive correlation with resilience ( $p<.001$ ) No variable was found to influence resilience (Table 4).

**Table 1. Difference in Job stress, Health perception and Resilience according to general characteristics (n=201)**

Variables	Categories	n(%)	Job stress	Health perception	Resilience
			t/F(p)	F(p)	F(p)
Gender	Male	55(27.4)	.49	1.10	.95
	Female	146(72.6)	(.627)	(.271)	(.343)

<b>Age</b>	20-29	34(16.9)	3.73 (.031)	3.33 (0.12)	1.70 (.152)
	30-39	67(33.3)			
	40-49	80(39.8)			
	50-59	20(10.0)			
<b>Position</b>	Staff	169(84.1)	.60 (.548)	1.18 (.310)	.47 (.627)
	Team leader	28(13.8)			
	Chief officer	4(2.0)			
<b>Work department</b>	Inbound <sup>a</sup>	85(42.3)	.81 (.448)	4.64 (.011) <i>b&lt;a&lt;c*</i>	.38 (.684)
	Outbound <sup>b</sup>	86(42.8)			
	Blending <sup>c</sup>	30(14.8)			
<b>Period of working</b>	1- Less than 3yrs	42(20.9)	2.71 (.046)	2.78 (.042)	1.68 (.174)
	3- Less than 5yrs	50(24.9)			
	5- Less than 10yrs	64(31.8)			
	More than 10yrs	45(22.4)			
<b>Average monthly income</b>	< 2 million won	58(28.9)	.46 (.633)	.15 (.859)	1.01 (.365)
	2-Less than 3 million won	129(64.2)			
	≥3 million won	14(7.0)			

a, b, c: Scheffe

**Table 2. Score of Job stress, Health perception and Resilience (n=201)**

Categories	Total score	M	SD
Job stress	4	2.31	.29
Health perception	4	2.74	.33
Resilience	5	3.44	.54

**Table 3. Effect of Job stress, Health perception and Resilience (n=201)**

Variables	Job stress			Health perception			Resilience		
	B	β	t(p)	B	β	t(p)	B	β	t(p)
Gender	-.015	-.025	-.35 (.727)	-.073	-.104	-1.51 (.133)	-.055	-.049	-.69 (.491)
Age	.006	.180	2.30 (.022)	-.003	-.080	-1.05 (.295)	-.002	-.033	-.42 (.675)
Position	-.051	-.076	-.17 (.314)	-.007	-.010	-.13 (.897)	.072	.058	.76 (.447)
Work department	-.005	-.013	-.17 (.865)	.093	.196	2.73 (.007)*	.036	.048	.65 (.517)
Period of working	.057	.205	2.69 (.008) *	9.068	-.214	-2.87 (.005)*	-.054	-.108	-.30 (.197)
Average Monthly income	.004	.007	.091 (.928)	.032	.053	.678 (.499)	.058	.061	.75 (.453)
R <sup>2</sup>	.042			.080			.021		
Adjusted R <sup>2</sup>	.017			.056			-.004		

\* $p < .05$

**Table 4. Correlation between job stress, health perception and resilience (n=201)**

Variables	Job stress	Health perception	Resilience
Job stress	1	-.259**	-.264**
Health perception	-.259**	1	.398**
Resilience	-.264**	.398**	1

\*\* $p < .001$

#### 4. DISCUSSION AND CONCLUSION

Call center counseling is a typical type of emotional labor. This study tried to look into call center counselors' job stress, health perception and resilience, and to find influential factors. Job stress is related to depression. Workers with emotional labor have a higher depression level than general workers (Back, J. T. et al., 2018). Given that, it is predicated that call center counselors have high job stress. The subjects of this study are all regular employees working at a large company. The highest percentage of them have been working for over three years. 70% of them are in their 30s and 40s. Compared to the previous study whose subjects were in less than one year of service and in their 20s and 30s, this study had participants with higher job proficiency levels. Nevertheless, the job stress of the subjects of this study was higher than an average value, so that they perceived their job stress. In the post-hoc test, although there was no significant difference in service period, the average difference between those in over 5 years of service and those in less than 3 years of service was the largest. The result is similar to the result of the research by Shim, J. H. (2020) according to which job stress was significantly related to age and service period. Therefore, it is necessary to look into stress factors depending on service career. Given the result that job stress had negative correlations with health perception and resilience, it is required to check call center counselors' job stress and improve their work conditions in order to improve their quality of life and job satisfaction.

Among general characteristics, health perception was significantly different depending on service department and service period. In the post-hoc test on health perception according to service department, health perception was the highest at blending, followed by inbound and outbound in order. As such, health perception was different depending on service department. Call center service department is categorized into inbound into outbound. In the research by Kim, H. J. et al. (2012), inbound counselors had more positiveness and empathy ability than outbound ones. It indicates that outbound jobs give more job stress to counselors.

Resilience had no significant relations with general characteristics. Nevertheless, in the analysis of correlations between variables, resilience had a negative correlation with job stress, and a positive correlation with health perception. J. According to the research by Shim, J. H. (2020), age and service period had positive correlations with resilience. The result difference seems to be because of the difference in service period. Of the subjects of the study by Shim, J. H. (2020), 48.2% were in less than one year of service. In this study, those in 3-10 years of service accounted for the highest percentage (56.7%). Therefore, the follow-up research will need to consider diversity of service period. Job stress negatively affects organizational commitment and increases turnover intention. There is a proposal of increasing resilience in order to reduce job stress (Lee, Y. M., 2022, Shim, J.H., 2020).

Given the above results, it is necessary to provide stepwise job education to increase call center counselors' job proficiency in consideration of their service period in order to reduce their job stress. In addition, the introduction of work shift system into service department will be helpful to increase workers' health perception. Since health perception has a positive correlation with resilience, it is possible to predict that increasing health perception can lead to improving resilience. Therefore, it will be necessary to come up with a related policy, and to develop and apply a program and verify the program's effects in follow-up research.

#### 5. ACKNOWLEDGMENTS

This study was supported by the Research Program funded by the Kyungdong University.

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## 6. ACKNOWLEDGEMENTS

### Declarations

Author(s) declare that all works are original and this manuscript has not been published in any other journal.

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