

## Original Article

## The Relationship between Job Stress and Service Attitude among Speech-Language Pathologists

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### Abstract

**Purpose:** Speech-language pathology is highly dependent on human resources because service quality is closely related to speech-language pathologists (SLPs)' service attitude. This study investigates the effects of job stress on SLPs' service attitude to help improve service quality.

**Method:** Self-administered questionnaires were distributed to 164 SLPs working at speech and language rehabilitation centres in two major cities and one province in Korea, using the Korean Occupational Stress Scale-Short Form (KOSS-SF) and a service attitude scale. Data analysis included t-test, ANOVA, correlation analysis, and multiple regression analysis using SAS (ver. 9.4).

**Result:** The overall job stress level of SLPs was  $56.68 \pm 7.95$  out of 100.0, with job demands highest at  $64.75 \pm 1.86$ , and job insecurity lowest at  $47.00 \pm 1.38$ . The overall service attitude level was  $2.86 \pm 0.41$  out of 4.0, with service commitment highest at  $2.96 \pm 0.41$ , and service-oriented voluntary behaviour as  $2.77 \pm 0.47$ . The job stress factors affecting SLPs' service attitude were job autonomy, inadequate compensation, and workplace culture, with service attitude significantly poorer where these three factors were greater.

**Conclusion:** To improve speech-language pathology services, there should be: job autonomy increase, precise criteria for wages, and an organizational system facilitating rational communication. Job environment improvement through the management of job stress factors is necessary.

**Keywords:** Speech-language pathologist, job stress, service attitude, burnout, job autonomy, workplace culture

### Background

Speech-language pathology alters speech and language behaviour into desirable behaviour, and the main task of speech-language pathologists (SLPs) is to assess the level of their clients with speech and language problems and to provide rehabilitation services according to the symptoms (Richard, 2011). Speech-language pathology services refer to highly professional rehabilitation services provided using the materials and information needed for counselling and rehabilitating target clients (Kalkhoff & Collins, 2012; Vento-Wilson, McGuire, & Ostergren, 2015). SLPs work in diverse environments such as welfare centres and private, medical, and educational institutions. As clients become more aware of their rehabilitation services, they come to demand higher-quality services, thus increasing the workload of the service providers, i.e., SLPs (Hester & Stevens-Ratchford, 2009; McKean, Phillips, & Thompson, 2012;

Theodoros, 2012). In Korea, SLPs have been undertaking many of the speech and language rehabilitation services since the institutionalization of their profession through national certification in 2012, and recently, the demand for speech-language pathology services has been rapidly rising because of the government's monetary support with regard to utilising such services.

In general, job stress arises when work demands are high, and control over the work is low (Dewa, Thompson, & Jacobs, 2011; Shinn, Rosario, Mørch, & Chestnut, 1984; van Tooren & de Jonge, 2008). Job stress is on the rise because of constantly increasing workload and few promotion opportunities, poor work conditions such as low wages, and relationship conflicts among occupational groups (Edgar & Rosa-Lugo, 2007; Noblet & LaMontagne, 2006). Workers that have to interact constantly with many persons are classified as having a high risk of job

stress (Felton, 1998; Happell, Martin, & Pinikahana, 2003).

SLPs are service providers that offer rehabilitation services for other persons. Because such rehabilitation services involve a high level of dependency on human resources, the most important factor affecting the quality of services in speech-language pathology is the person that directly provides the services (Edgar & Rosa-Lugo, 2007). Even if a good rehabilitation program is established, the effectiveness of rehabilitation is diminished when an environment where the SLP can make the best use of his or her talents is lacking (McLaughlin, Adamson, Lincoln, Pallant, & Cooper, 2010). Much of the quality of the service that a given institution provides to its clients is closely related to the service attitude of the professional that is providing the service (Lou, Li, Yu, & Chen, 2011). Job stress arising from increased workload and consequent conflict makes it difficult to provide high-quality rehabilitation services. When job stress is prolonged, it becomes the main factor influencing turnover intentions and professionalism of employees, thus having a negative effect not only on individuals but on the entire organization (Dewa, Thompson, & Jacobs, 2011). In particular, because speech-language pathology requires long-term continuous rehabilitation, the frequent turnover of professionals has a negative effect on rehabilitation and leads to a decline in service quality and effectiveness (Heritage, Quail, & Cocks, 2018; McLaughlin, Adamson, Lincoln, Pallant, & Cooper, 2010). To manage and improve the quality of speech-language pathology services, there is much need to seek measures for raising the job satisfaction of SLPs, as examined in previous studies, and also to conduct research on the service attitude of SLPs that provide rehabilitation services to persons with speech-language problems. Accordingly, this study aims to investigate the effects of SLPs' job stress on their service attitude, so as to contribute to improvements in their job capabilities and rehabilitation services.

## **Methods**

This study was conducted on 164 SLPs working at welfare centres and private, medical, and educational institutions in two major cities and one province that about 70% of speech and language rehabilitation centres are located in Korea from February to March 2015. A total of

184 self-administered questionnaires were distributed, and 171 of them were collected (Response rate : 92.9%). Among the collected questionnaires, 7 were excluded because they had an insufficient number of answered items, and a total of 164 questionnaires were subjected to final analysis.

The questionnaire comprised a total of 60 items. Personal details consisted of 7 items, namely, gender, age, highest level of education, marital status, and whether the respondent drinks, smokes, and/or exercises. Job characteristics consisted of 10 items, namely, certification, type of workplace, form of employment, job rank, clinical experience, employment history at the current workplace, number of SLPs at the current workplace, monthly wage, treatment sessions per week, and number of treated clients per month. Job stress consisted of 24 items, namely, 4 items on job demands, 4 items on job autonomy, 3 items on relationship conflicts, 2 items on job insecurity, 4 items on organizational system, 3 items on inadequate compensation, and 4 items on workplace culture. Service attitude consisted of 17 items, namely, 11 items on service commitment, and 6 items on service-oriented voluntary behaviour.

To determine the job stress levels of SLPs, the Korean Occupational Stress Scale-Short Form (KOSS-SF; Chang et al., 2005) was used, which is an adaptation of a scale developed in the study by Fimian, Lieberman, and Fastenau (1991) for employees in Korea. The scale comprises a total of 24 items sorted into a total of 7 subdomains, that is, 4 items on job demands indicating time pressure, increased workload, interruption of work, sense of responsibility, and excessive work burden; 4 items on job autonomy indicating discretion and autonomy in using skills, work predictability, decision-making authority in performing one's job, etc.; 3 items on relationship conflicts indicating coworker support, supervisor support, and overall support; 2 items on job insecurity indicating employment opportunity and employment insecurity; 4 items on organizational system indicating the organization's policies and operating system, the organization's resources, conflicts within the organization, and rational communication; 3 items on inadequate compensation indicating respect, internal motivation, and lack of fit with expectations; and 4 items on workplace culture indicating Korean collectivist culture, irrational

communication system, informal workplace climate, etc. To determine the service attitude of SLPs, a scale consisting of a total of 2 subdomains, i.e., service commitment and service-oriented voluntary behaviour, was used, which comprises a total of 17 items, including 11 items on service values and work commitment based on a study on job commitment (Chang et al., 2005), and 6 items that were adopted in a study on service-oriented voluntary behaviour (Bettencourt, Gwinner, & Meuter, 2001). The reliability of the questionnaire was measured by means of Cronbach's  $\alpha$ . The overall reliability coefficient for all 24 job stress items was 0.85, and the reliability coefficients for each domain were 0.72 for job demands, 0.64 for job autonomy, 0.71 for relationship conflicts, 0.82 for job insecurity, 0.73 for organizational system, 0.67 for inadequate compensation, and 0.68 for workplace culture, thus indicating high reliability. The overall reliability coefficient for all 17 service attitude items was 0.93, and the reliability coefficients for each domain were 0.91 for service commitment and 0.84 for service-oriented voluntary behaviour, thus confirming that the questionnaire used in this study was reliable as a measurement tool.

For data analysis, SAS (ver. 9.4) program was used wherein frequencies and percentage figures for general characteristics and job characteristics were obtained through frequency analysis, and compared means using t-test and ANOVA. When a mean comparison involving three or more variables yielded significant results, a post hoc test was run on the differences with comparison groups, and correlation analysis was used to test for correlations between job stress and service attitude. Multiple regression analysis was used to assess the relationship between job stress and service attitude, with the significance level set at  $p < 0.05$ .

## Results

### *General characteristics of study subjects*

The total number of respondents was 164, of which 147 were female (89.6%) and 17 were male (10.4%). In terms of age distribution, those in their 20s numbered the most at 75 (45.7%); as for highest level of education, college graduates at 78 (47.6%); as for marital status, unmarried at 102 (62.2%); as for smoking, non-smokers at 147 (89.6%), as for drinking, drinkers at 95 (57.9%); and, as for exercise, non-exercisers at 106 (64.6%;

Table 1).

**Job characteristics of study subjects:** Analysis of the job characteristics of study subjects found that, in regard to certification, second-class SLPs numbered the most at 158 (96.3%); in regard to type of workplace, private institutions at 107 (65.3%); in regard to form of employment, regular employees at 127 (77.4%); in regard to job rank, staff at 130 (79.3%); in regard to clinical experience, those with 2 years and under at 52 (31.7%); and, in regard to employment history at the current workplace, those with 1--2 years at 62 (37.8%). As for number of SLPs at the current workplace, 3--4 was the most common at 88 respondents (53.7%); as for monthly wage, KRW 1.5 million to less than 2.0 million at 64 (39.0%); as for treatment sessions per week, 20--24 sessions at 57 (34.8%); and, as for number of treated clients per month, 10--14 clients at 48 (29.3%; Table 2).

### *Job stress and service attitude levels of study subjects*

The overall job stress level of the study subjects was  $56.68 \pm 7.95$  (maximum value = 100.0). As for the relevant sub-items, job demands showed the highest job stress level at  $64.75 \pm 1.86$ , followed by inadequate compensation at  $61.00 \pm 1.28$ , relationship conflicts at  $60.00 \pm 1.83$ , organizational system at  $57.88 \pm 2.01$ , workplace culture at  $55.44 \pm 2.33$ , job autonomy at  $50.69 \pm 1.74$ , and job insecurity at  $47.00 \pm 1.38$ . Thus, "job demands" caused the highest stress, followed by "inadequate compensation", "relationship conflicts", "organizational system", "workplace culture", "job autonomy", and "job insecurity". The overall service attitude level of the study subjects was  $2.87 \pm 0.41$  (maximum value = 4.0). As for the relevant sub-items, service commitment showed the highest job stress level at  $2.96 \pm 0.41$ , and service-oriented voluntary behaviour was shown to be  $2.77 \pm 0.47$  (Table 3).

### *Correlations between job stress and service attitude of study subjects*

Analysing the relationships among the items under job stress and service attitude revealed that job autonomy, relationship conflicts, organizational system, inadequate compensation, and workplace culture were negatively correlated with service commitment and service-oriented voluntary behavior. Thus, in the subdomains of job autonomy, relationship conflicts,

organizational system, inadequate compensation, and workplace culture, it was shown that as stress increases, service attitude---i.e., service commitment and service-oriented voluntary behaviour---is diminished (Table 4).

#### ***Effects of job stress on the service attitude of study subjects***

Multiple regression analysis was conducted to

determine the effects of job stress on the service attitude of the study subjects. Examining the effects that job stress has on service attitude by calibrating general characteristics and job characteristics, it was found that service attitude is diminished as stress in the subdomain of job autonomy, inadequate compensation, or workplace culture becomes greater ( $R^2=0.59$ ,  $p<0.001$ ; Table V).

**Table 1. General characteristics of study subjects**

<b>Item</b>	<b>Classification</b>	<b>Frequency (no. of persons)</b>	<b>Percentage</b>
Gender	Male	17	10.4
	Female	147	89.6
Age	20s	75	45.7
	30s	50	30.5
	40s	31	18.9
	50s and above	8	4.9
Highest level of education	Junior college graduate	16	9.7
	College graduate	78	47.6
	Attending graduate school	32	19.5
	Completed graduate school	38	23.2
Marital status	Unmarried	102	62.2
	Married	62	37.8
Smoking	Yes	17	10.4
	No	147	89.6
Drinking	Yes	95	57.9
	No	69	42.1
Exercise	Yes	58	35.4
	No	106	64.6
Total		164	100

**Table 2 Job characteristics of study subjects**

Item	Classification	Frequency (no. of persons)	Percentage
Certification	First-class speech-language pathologist	6	3.7
	Second-class speech-language pathologist	158	96.3
Type of workplace	Private institution	107	65.3
	Welfare centre	31	18.9
	Medical institution	12	7.3
	Educational institution	14	8.5
Form of employment	Regular	127	77.4
	Contract	37	22.6
Job rank	Staff	130	79.3
	Team manager or chief officer	34	20.7
Clinical experience	2 years and under	52	31.7
	3--4 years	51	31.1
	5--6 years	34	20.7
	7 years and above	27	16.5
Employment history at the current workplace	1 year and under	38	23.2
	1--2 years	62	37.8
	3--4 years	52	31.7
	5 years and above	12	7.3
Number of speech-language pathologists at the current workplace	1--2 persons	47	28.7
	3--4 persons	88	53.7
	5 persons or more	29	17.6
Monthly wage	< KRW 1.5 million	59	36.0
	KRW 1.5 million to < 2.0 million	64	39.0
	KRW 2.0 million to < 2.5 million	21	12.8
	≥ KRW 2.5 million	20	12.2
Treatment sessions per week	Less than 15	16	9.8
	15--19	32	19.5
	20--24	57	34.7
	25--29	33	20.1
	30 and above	26	15.9
Number of treated clients per month	Less than 10	22	13.4
	10--14	48	29.3
	15--19	46	28.1
	20--24	36	22.0
	25 and above	12	7.2
Total		164	100

**Table 3. Job stress and service attitude levels of study subjects**

Item	Classification	Score (mean±SD)
Job stress*	Job demands	64.75±1.86
	Job autonomy	50.69±1.74
	Relationship conflicts	60.00±1.83
	Job insecurity	47.00±1.38
	Organizational system	57.88±2.01
	Inadequate compensation	61.00±1.28
	Workplace culture	55.44±2.33
	Total	56.68±7.95
Service attitude**	Service commitment	2.96±0.41
	Service-oriented voluntary behaviour	2.77±0.47
	Total	2.87±0.41

**Table 4. Correlations between job stress and service attitude of study subjects**

Classification	Service commitment	Service-oriented voluntary behaviour	Service attitude (overall)
Job demands	0.05	-0.08	0.00
P	0.492	0.321	0.969
Job autonomy	-0.34	-0.28	-0.33
P	<0.001	<0.001	<0.001
Relationship conflicts	-0.39	-0.41	-0.42
P	<0.001	<0.001	<0.001
Job insecurity	-0.03	-0.01	-0.02
P	0.755	0.928	0.812
Organizational system	-0.45	-0.46	-0.48
P	<0.001	<0.001	<0.001
Inadequate compensation	-0.60	-0.53	-0.60

P	<0.001	<0.001	<0.001
Workplace culture	-0.49	-0.44	-0.49
P	<0.001	<0.001	<0.001
Job stress (overall)	-0.51	-0.51	-0.53
P	<0.001	<0.001	<0.001

**Table 5. Effects of job stress on the service attitude of study subjects**

Item	Classification	β(S.E)	t	p
	Intercept	60.41(6.21)	9.73	<0.001
Job stress	Job demands	0.29(0.29)	0.98	0.329
	Job autonomy	-0.80(0.26)	-3.08	0.003
	Relationship conflicts	-0.59(0.31)	-1.92	0.057
	Job insecurity	0.65(0.35)	1.84	0.068
	Organizational system	-0.31(0.3)	-1.02	0.310
	Inadequate compensation	-1.08(0.47)	-2.29	0.023
	Workplace culture	-0.68(0.25)	-2.69	0.008

F= 8.33; p<0.001; R<sup>2</sup> = 0.59

Note. Adjusted by general characteristics and job characteristics.

As a result, the job stress factors found to influence the service attitude of SLPs were job autonomy, inadequate compensation, and workplace culture.

**Discussion**

SLPs have a high risk of job stress given that they offer rehabilitation services to human clients and have to interact with many persons (Casper, 2013). In Korea, the demand for speech-language pathology services has greatly increased because of government support, and workload has also increased accordingly. Prolonged stress affects turnover intentions and professionalism (Heritage, Quail, & Cocks, 2018), and is expected to have a negative impact on the quality of speech and language rehabilitation that requires long-term continuous therapy (Kalkhoff & Collins, 2012). Thus, this study determined the job stress levels of SLPs and the effects that these have on their service attitude, with a view to contributing to improvements in the work capabilities of SLPs and their rehabilitation services.

The overall mean level of job stress among SLPs

was 56.68±7.95 out of a maximum value of 100.0, which corresponds to the top 25% of workers in Korea (56.0 and above) with high job stress (Ito, Fujita, Seto, Kitazawa, Matsumoto, & Hasegawa, 2014; Mosadeghrad, Ferlie, & Rosenberg, 2011; Park, Min, Chang, Kim, & Min, 2009). Among the sub-items of job stress, “job demands” was shown to be the highest at 64.75±1.86. This seems to be because of stress related to the increased workload resulting from an increase in demand for speech-language pathology services consequent upon increased government support, the lack of adequate rest given during work and having to work under time pressure, and administrative work that arises in addition to rehabilitation work at the speech-language therapist’s institution.

The overall mean level of service attitude among SLPs was shown to be 2.87±0.41 out of a maximum value of 4.0. Among the sub-items of service attitude, “service commitment” had the highest score at 2.96±0.41. SLPs seem to have a high level of service commitment because their main work of altering the speech and language

behaviour of their clients positively through their rehabilitation services, and the service results lead to performance evaluation and compensation (Randolph, 2005).

Analysis of service attitude according to general characteristics showed that the higher the age and level of education, the higher the service commitment and service-oriented voluntary behaviour. These are highly correlated with job rank, and this seems to be because most people with a higher age or level of education attain higher job ranks, and their consequent sense of responsibility increases their service attitude.

On the other hand, analysis of service attitude according to job characteristics revealed that SLPs working in private institutions or welfare centres have a greater service attitude, which seems to be because of the characteristic of private institutions and welfare centres of offering high-quality services as their competitive edge. Furthermore, it was shown that the longer one's clinical experience and employment history at the current workplace, the greater one's service commitment and service-oriented voluntary behaviour. This is the result of gaining skills in speech-language pathology over time. Also, the higher the monthly wage, the higher the service commitment and service-oriented voluntary behaviour. Usually, the higher one's monthly wage, the higher one's job satisfaction, which is also correlated with high-quality service (Casper, 2013).

Analysis of correlations between job stress and service attitude revealed that job autonomy, relationship conflicts, organizational system, inadequate compensation, and workplace culture were negatively correlated with service commitment and service-oriented voluntary behaviour. This indicates that as stress in regard to job autonomy, relationship conflicts, organizational system, inadequate compensation, and workplace culture increases, service commitment and service-oriented voluntary behaviour decrease. In other words, it is likely that, among the sub-items of job stress experienced by SLPs, job autonomy, relationship conflicts, inadequate compensation, organizational system, and workplace culture interact with one another to influence service attitude. Therefore, it will be necessary to consider SLPs' job stress to improve their service attitude.

Multiple regression analysis was conducted to determine the effects that SLPs' job stress have on their service attitude. The results indicated that the higher one's stress in regard to job autonomy, the lower one's service attitude. This is probably because of the occupational characteristic of speech-language pathology that requires high levels of skill, knowledge, and creativity in providing rehabilitation services (Stacciarini & Tróccoli, 2004). It was also found that the higher one's stress in regard to inadequate compensation, the lower one's service attitude, which can be explained by the reasoning that the higher one's monthly pay, the higher one's job satisfaction, which affects the quality of services (Blood, Ridenour, Thomas, Qualls, & Hammer, 2002). In Korea, SLPs receive small wages, and these increase by a small margin even if they have worked at their institutions for a long time. Paradoxically, the increase in government support is cited as a reason for the low wages received by SLPs: although the number of jobs has increased because of the government support program, actual wage conditions for those jobs are unsatisfactory. Thus, it is highly necessary to set precise wage criteria according to the work done by SLPs. Moreover, social support from supervisors and coworkers in the workplace reduces job stress (O'Halloran, Lee, Rose, & Liamputtong, 2014; Morrison, Lincoln, & Reed, 2011), and it was also shown in this study that the higher one's stress in regard to workplace culture, the lower one's service attitude.

Results also showed that the high job stress of SLPs is related to their service attitude, and that it can have negative effects on the quality of their therapeutic services. Therefore, to improve the quality of speech-language pathology services, there is a need to make efforts to determine the job stress factors affecting SLPs who directly provide rehabilitation services, and to improve the job environment through the management of these factors (McLaughlin, Lincoln, & Adamson, 2008).

As for the limitations of this study, first, the areas that the study subjects were drawn from are limited in extent, and, thus, impose limits on generalizing this study's results to SLPs all over Korea. Second, because self-administered questionnaires were used, the data is based on the subjective opinions of the respondents, and, therefore, the results can vary according to the interpretations given by the respondents. Third,

the present study was more about the general kind of service attitude rather than the kind of service attitude that is specific to the work of SLPs. In the future, it will be necessary to develop a scale that takes into account the specific characteristics of jobs related to speech-language pathology. Despite these limitations, the results of this study can be used as basic data in improving the quality of speech-language pathology services, insofar as it sheds light on the effects that job stress has on service attitude. In follow-up studies, there needs to be more detailed research that investigates the service attitude of SLPs in more diverse regions, along with client satisfaction in regard to service quality.

### Conclusion

The present study was conducted with the aim of providing basic data that will contribute to improving the quality of therapeutic services provided by SLPs. To this end, it investigated the effects of job stress on the service attitude of SLPs, thus enabling the reduction of job stress factors in advance. As a result, the job stress factors found to influence the service attitude of SLPs were job autonomy, inadequate compensation, and workplace culture. To mitigate the negative effects of these factors, it is necessary to create an environment where job autonomy is increased so that SLPs can fully exercise their abilities, through measures such as providing educational opportunities for self-development and professional improvement. In addition, reasonable compensation should be provided in consideration of precise criteria for wages. Furthermore, it is necessary to revise irrational communication systems and establish a rational one, and to make efforts to create a workplace culture where different occupational groups respect one another.

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