

A Study on Effect of CCTV Installation in Korea Kindergarten

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Abstract

The effects of CCTV installation on teachers' job stress and teacher-child interaction showed that teachers had positive ideas for young children's thinking, information provision and evidential data by CCTV installation, but they were under serious job stress for CCTV installation. Especially, the CCTV installation was a factor obstructing free skinship or communication between teachers and young children. Consequently, the CCTV installation has a negative effect on teacher-child interaction, lowering the quality of teacher-child interaction.

Keywords: CCTV Installation, Teachers' Job Stress, Teacher-Child Interactions

1. Introduction

Recently, parents have paid more attention to their young children's life at child care centers because of child abuse and assault in child care centers [1]. With growing interest in their young children's safety, their needs for CCTV installation in child care centers are expanding. There is a public uproar against child care environment when some videos about child abuse, which has become a recent issue, are released even in other areas such as Busan and Sejong City where child care centers sit.

As parents have a high needs for CCTV installation in child care centers, the CCTV installation is increasing in a misunderstanding to think of all teachers as potential criminals. To solve the problems of early childhood teachers' successive child assault and abuse, their working environment need to be also examined before parents' needs for an unconditional and obligatory CCTV installation. In other words, Choi Sun-kyung [2] said that their working environment was not good. They worked more than an average of nine hours a day without overtime pay. So they had a higher level of stress and a lower level of job satisfaction than other jobs [2].

The current CCTV operation in child care centers causes a new confrontation over a violation of teachers' human rights, and parents' expectation and right to know of safe child care. The CCTV installation can be a tool of safe child care to figure out their children's current state in real time from the parents' side, but it can be a violation of human rights from the teachers' side, being used unlike the original purpose. And an one-sided promise with parents caused by the difference between teachers' real interference and parents' perceptions of CCTV operation meets resistance from child-care workers [3].

This study is intended to come up with basic data on a policy direction of CCTV installation in early childhood education institutes being implemented as a way to root out early childhood teachers' child abuse, which is alienated and excluded from the monitoring through CCTV installation, by looking into the effects of CCTV installation

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on teachers' job stress and teacher-child interaction to figure out early childhood teachers' correct perceptions.

2. Research Method

2.1. Survey Subject and Survey Method

In this study, a self-administrated questionnaire survey was carried out to 221 teachers who work for early childhood education institutions (kindergarten, child care center) in Chungnam areas for 6 days from September 7 to 12, 2015. This researcher distributed 250 questionnaires to them in person after the explanation of research purpose and survey method. 221 questionnaires except 29 faithless and missing copies of collected questionnaires were used for final analysis.

General characteristics of those surveyed showed that teachers in their 20s, 30s, 40s and 50s were 106 persons(48.0%), 81 persons(36.7%), 28 persons(12.7%) and 6 persons(2.7%), respectively.

2.2. Composition of Questionnaire

The items of scale were composed of the basis of surveys and theories used in previous studies. The questionnaire was composed of total 23 questions of 4 categories such as respondents' general matters for statistical analysis, number of installed CCTVs, early childhood teachers' job stress and teacher-child interaction, and satisfaction with CCTV installation.

The nominal scale, which makes inquiries about respondents' general matters and number of CCTVs such as type of child care center, work experience, age and major, and the Likert 5-point scale, which makes inquiries about early childhood teachers' job stress and teacher-child interaction for CCTV installation, and satisfaction with CCTV installation, were used in this study. On the Likert 5-point scale, 'So yes', 'A little', 'Normal', 'No' and 'Not at all' were measured by 5 points, 4 points, 3 points, 2 points and 1 point, respectively. The higher the score, the higher the perception of each question.

Table 1. Composition of Questionnaire

Classification		Number of Question	Scale	Source
General Matters	Type of Child Care Center, Work Experience, Age, Major	4	Nominal Scale	Jeong Hyun-ok[3]
Number of Installed CCTVs	Number of Installed CCTVs in Early Childhood Education Institutions	1		
	Optimal Number of CCTVs	1		
CCTV Influence	Job Stress for CCTV Installation	16	5-Point Likert Scale	Kim Eun-ha[4]
	Teacher-Child Interaction for CCTV Installation			
Satisfaction with CCTV Installation		1	5-Point Likert Scale	
Total		23		

2.3. Analysis Method

The SPSS v. 18.0 was used for analysis of collected data through the process of data coding and data cleaning.

Analysis was conducted as follows.

The Duncan test was conducted for one way ANOVA and post verification. And the multiple regression analysis was conducted to figure out the effects of early childhood teachers' job stress and teacher-child interaction for CCTV installation on their satisfaction with CCTV installation.

3. Research Model

Early Childhood Teachers' Job Stress

3.1.1. Early Childhood Teachers' General Job Stress on CCTV: The following [Table 2] was the result of descriptive statistic analysis of early childhood teachers' general job stress for CCTV. The mean was 3.64 points. In detail, 'I think I may be misunderstood by parents as the voice was not heard from CCTV, so I am stressed sometimes' was the highest by 3.85 points, and 'Sometimes CCTV is a factor causing early childhood teachers' stuffiness and stress by restraining their autonomy' was the lowest by 3.55 points.

Table 2. General Job Stress

Classification	M	SD
General Job Stress for CCTV	3.64	.845

3.1.2. Validity and Reliability: The following is the result of factor analysis of 5 questions on early childhood teachers' general job stress for CCTV. A factor was derived from analysis. Factor 1(65.681%) was named as 'early childhood teachers' job stress.' The loading value of factor 1 was more than $\pm .40$, which it had validity. The reliability of it was more than .60.

3.2. Teacher-Child Interactions with CCTV

The following [Table 3] was the result of descriptive statistic analysis of general teacher-child interaction for CCTV. The mean was 3.00 points. In detail, 'Sometimes the CCTV is a way of blocking free skinship or communication for teacher-child interaction' was the highest by 3.11 points, and 'Sometimes the CCTV is a way of hiding one's heart for teacher-child interaction' was the lowest by 2.87 points.

Table 3. General Teacher-Child Interaction

Classification	M	SD
Teacher-Child Interaction	3.00	.537

3.3. Difference in Early Childhood Teachers' Stress and Teacher-Child Interaction According to General Characteristics

The following [Table 4] was the result of descriptive statistic analysis of the difference between early childhood teachers' job stress and teacher-child interaction for CCTV according to general characteristics. There was a significant difference in their job stress for CCTV according to the type of child care centers($p < .05$).

Besides, there was no significant difference according to their work experience and major($p>.05$).

Table 4. Difference in Early Childhood Teachers' Stress and Teacher-Child Interaction According to General Characteristics

Classification		Parents' Perception and Demand			
		Job Stress		Teacher-Child Interaction	
		M	SD	M	SD
Type of Child Care Center	Home	4.18 ^a	.723	2.88	.470
	Corporate	3.68 ^a	.509	3.16	.474
	National	3.92 ^a	1.071	2.95	.972
	Private	3.50 ^a	.848	3.00	.508
	Workplace	4.16 ^a	.984	3.00	.424
	Other	3.49 ^a	.459	3.09	.401
	<i>F-value (p)</i>	3.861 ^{**} (.002)		.642(.668)	
Work Experience	Under 1 Year	3.28	.569	3.31	.533
	Under 1~5 Years	3.67	.770	3.01	.498
	Under 5~10 Years	3.77	.785	2.99	.502
	Over 10 Years	3.39	1.225	2.86	.707
	<i>F-value (p)</i>	2.254(.083)		2.166(.093)	
Major	Early Childhood Education	3.65	.817	3.06	.547
	Child Care	3.64	.866	2.88	.447
	Social Welfare	3.49	.921	2.93	.649
	Child Welfare	3.71	.627	2.95	.410
	Other	3.68	1.202	2.89	.609
	<i>F-value (p)</i>	.162(.957)		1.131(.343)	
Total		3.64	.845	3.00	.537

^{**} $p<.01$

3.4. Effects of Early Childhood Teachers' Job Stress and Teacher-Child Interactions on Satisfaction with CCTV Installation

The following [Table 5] was the result of multiple regression analysis to verify the effects of early childhood job stress and teacher-child interaction for CCTV Installation on Satisfaction with CCTV Installation. The explanatory power of regression model was 20.8%, and the regression equation was significant($F=20.290$, $p<.001$). By independent variables, teacher-child interaction($\beta=.233$, $p<.01$) for CCTV installation had a positive effect on their satisfaction with their job stress($\beta=-.175$, $p<.01$) for CCTV installation had a negative effect on their satisfaction with CCTV installation.

Table 5. Effects of Early Childhood Teachers' Job Stress and Teacher-Child Interaction for CCTV on Satisfaction with CCTV Installation

Classification	Nonstandardized Coefficient		Standardized Coefficient	t	p
	B	Standard Error	β		
(Constant)	1.123	.667		1.683	.094
Job Stress	-.248	.092	-.175	-2.698**	.008
Teacher-Child Interaction	.521	.157	.233	3.325**	.001
<i>F-value</i>	20.290***				
<i>R</i> ²	.208				
Dependent Variable: Satisfaction with CCTV Installation					
p<.01, *p<.001					

4. Discussion and Conclusion

The results of this study stated above were as follows.

First, the teacher-child interaction for CCTV showed that ‘Sometimes the CCTV is a way of blocking free skinship or communication for teacher-child interaction’ was the highest by 3.11 points, and ‘Sometimes the CCTV is a way of hiding one's heart for teacher-child interaction’ was the lowest by 2.87 points.

Second, the difference between early childhood teachers' job stress and teacher-child interaction for CCTV according to general characteristics showed that there was a significant difference in their job stress for CCTV according to the type of child care centers.

Third, early childhood teachers' job stress for CCTV showed that ‘I think I may be misunderstood by parents as the voice was not heard from CCTV, so I am stressed sometimes’ was the highest by 3.85 points, and ‘Sometimes CCTV is a factor causing early childhood teachers' stuffiness and stress by restraining their autonomy’ was the lowest by 3.55 points.

Fourth, the interaction between CCTV influence and satisfaction with CCTV installation showed that early childhood teachers' job stress for CCTV, and teacher-child interaction for CCTV had a significant positive relationship with CCTV installation satisfaction. Their job stress for CCTV had a significant negative relationship between teacher-child interaction for CCTV and satisfaction with CCTV installation. Besides, teacher-child interaction for CCTV had a significant positive relationship with CCTV installation satisfaction.

Fifth, the effect of early childhood teachers' job stress and teacher-child interaction for CCTV installation on satisfaction with CCTV installation showed that early childhood teachers' job stress for CCTV installation had a significant negative effect on satisfaction with CCTV installation.

As for the results of this study stated above, early childhood teachers had positive ideas for young children's thinking, information provision and evidential data of CCTV installation, but they were under serious job stress for CCTV installation. Especially, the CCTV installation was a factor obstructing teacher-child interactions, free skinship or communication. Consequently, the action and early childhood teachers' job stress as distrust factors of CCTV can lead to negative effects on CCTV installation, lowering the quality of teacher-child interaction.

The implications and suggestions for development based on the results are as follows.

First, it turns out that the installation of a CCTV in child care centers can play the role of relieving parents' anxiety and distrust about the scene of child care to some degree. But

this can be a result of restricting young children's and child care teachers' portrait rights, freedom of privacy and child care teachers' rights as workers. To justify the restriction of basic human rights, the interested parties should agree to them, or they should be clearly based on the law. Because information objects should impose legal regulations to control information acquired by CCTV.

Second, early childhood teachers are likely to suffer from stress because of their job except parental concern and involvement. Their good working environment can improve their job satisfaction, which the good quality of child care service has a positive effect on young children. So it is important to improve the shortcomings of their working environment. Especially, if early childhood education institutions do more to raise their salaries seized on a minimum wage to the level of state payroll, to observe working hours fixed by the Labor Standard Law, to pay overtime allowance, to keep the teacher to child ratio, and to improve their welfare and working environment involving the use of yearly and monthly holidays and the opportunity of their self-development, better educational environment will be created to make them increase self-esteem and efficacy themselves. The good quality of child care service is delivered to young children, which it gives parents trust in and satisfaction with early childhood education institutions and early childhood teachers. Consequently, the desirable relationship based on trust and belief, not the relationship involved by the distrust of surveillance between early childhood teachers and parents based on a machine of CCTV, will affect young children's positive educational environment.

Third, a CCTV has not only functions of violating and observing early childhood teachers' and young children's privacy, but two sides of attacking and protecting early childhood teachers. Early childhood teachers can see it as a minimum device for protecting them to interpret its some functions as positive ones. Consequently, they should take pride in securing autonomy and taking care of precious and young life. A easy way, CCTV installation is an administrative result, which early childhood education institutions have seen as if they are potential criminals without serious thinking about the heart of the matter or long-term solutions whenever there are child abuse cases.

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