## Effects of Satisfaction with Leisure Activities of Parents of Disabled Children on their Sense of Depression

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#### Abstract

The purpose of this study is to analyze the influences of satisfaction with leisure activities of parents of disabled children on their sense of depression. For the study, 243 parents of disabled children in 00-si, Chungcheongbuk-do, were surveyed. For data analysis, frequency analysis, correlation analysis and multiple regression analysis were conducted using SPSS program. The results were as follows. Firstly, it was found that if a parent of disabled children has high level of satisfaction with leisure activity, his/her degree of positive emotion in the sense of depression is likely to be high as well. Secondly, the study showed that if a parent of disabled children has a high level of satisfaction with leisure activities, his/her depressive emotions, physical and action slowdowns and sense of depression in social relationships are likely to be low. As an implication, this study is considered to serve as the fundamental data for policies regarding the activation of leisure activities for parents of disabled children.

**Keywords:** Leisure, leisure activity, level of satisfaction with leisure activities, sense of depression

### 1. Introduction

#### 11. Issues Raised

Recently in Korea, the Basic Law on the National Leisure Activation, which ensures that every citizen deserves the proper life as a human being was enacted. According to National Statistics Office, as of 2013, the result of investigation on the satisfaction with leisure activities gave 27. 1% of satisfied, 47. 8% of fine and 25. 1% of unsatisfied. The reasons for unsatisfied consist of financial burdens (57. 7%), lack of time (21, 1%) and health and strength problems (9, 3%) [1]. Such result imply that although there is a rising awareness on the importance of leisure, there are various different problems, such as financial conditions and time management, regarding leisure activities. Especially, parents who raise disabled children tend to be easily exposed to sense of depression, so the various aspects of their life quality must be taken into consideration as well. Consequently, with rising interests in parents of disabled children and their leisure activities, which have critical role in enhancing the life quality, many studies on their satisfaction with leisure and sense of depression are being conducted [2, 3, 4].

A study on the effects of leisure satisfaction of university students on their emotional states reported that the social factors of leisure satisfaction influence the emotional states, including depression [3]. Also, there is a study, which showed that the leisure satisfaction of the elderly has significant influences on their life satisfaction [3, 4]. Another study result showed that of the types of leisure activities, active sports and social activities tend to lower the depression of middle aged women [5]. The mentioned existing studies explain how the relevant factors of leisure activities are closely related to the making of ideal human life [3, 4, 5].

The literature survey on existing studies infers that most of studies on the effects of leisure satisfaction on sense of depression were conducted by targeting on university students, middle aged people and the elderly, yet there is a lack of relevant studies targeted on the parents of disabled children. Thus, this study aims to provide the fundamental data for leisure activity activation policies, which can relieve or reduce the depression of parents of disabled children that negatively influences their lives.

#### 1. 2 Research Questions

The purpose of this study is to reveal the effects of satisfaction with leisure activities of parents of disabled children on their sense of depression. The detailed research questions for this study are as follows.

First, how does the satisfaction with leisure activities of parents of disabled children influence their positive emotions of depression?

Second, how does the satisfaction with leisure activities of parents of disabled children influence their depressive emotions, physical and action slowdowns and sense of depression in social relationships?

#### 2. Research Methods

### 2.1 Research Targets and Data Collection Method

In this study, 243 parents of disabled children in 00-si, Chungcheongbuk-do, were surveyed from March 1 through April 30 2015. The survey was conducted by sufficiently explaining the purposes and methods thereof to the respondents before asking them to directly fill out the survey sheets. G\*Power 3. 1, the test power analysis program of Cohen, was used to calculate the sample size, according to the sampling equation. The factorial analysis was conducted at a significance level of 5%, test power of 95% and effective size with mid-exponential of 0. 15. The minimum sample size was calculated to be 157 and, out of 243 sets of survey results, 208,

excluding the 35 sets that are inappropriate for analysis, were used for the data analysis.

#### 2.2 Research Tools

The questions from local health investigation [6] were used as the research tools for general characteristics. Also, to measure the level of satisfaction with leisure activities, the physical, psychological, educational, social, relaxational environmental factors, used by Sim NamSoo [7], were used. The scale of depression of Jeong EunSeon [8] was referred for the measuring tool of sense of depression and the subdivisions of depression were categorized into depressive emotions, positive emotions, physical and action slowdowns and social relationships. Moreover, the reliability of the measuring tools were found to be 0. 932, of which the Cronbach's a value is higher than 0. 60, the lower bound, indicating that the reliability of the research tools is secured.

#### 2.3 Methods of Data Processing and Analysis

The collected data were analyzed using SPSS 18.0 program at a significance level of 5% and degree of reliability of the research tools was estimated using Cronbach's *a* coefficient. The frequency analysis was conduct to investigate the general characteristics of parents of disabled children, and correlation analysis and multiple regression analysis were conducted to investigate the effects of satisfaction with leisure activities on the sense of depression.

#### 3. Research Results

#### 3.1 General Characteristics

The sample of parents of disabled children in this research consists of more females with 27 males (13.0%) and 181 females (87.0%), and the proportions of each age group were: 125 in 40s (60.1%), 48 in 30s (23.1%) and 35 in 50s or higher (16.8%). Regarding the final educational level, 113, the majority, graduated from university (54.3%), followed by 68 graduated from high school (32.7%) and 27 graduated from graduate school or higher institute (13.0%). Lastly, for the monthly family income, 69, the largest proportion, answered 3-4 million won (33.2%), followed by 54 answered 1-2 million won (25.9%), 37 answered 4 million won or more (17.8%), 36 answered 2-3 million won (17.3%) and 12 answered less than 1 million won (5.8%).

# 3.2 Correlation between satisfaction with leisure activities and the sense of depression

The result of analysis on the correlation between satisfaction with leisure activities of parents of disabled children and their sense of depression is as presented on <Table 1>. The correlation between satisfaction with leisure activities of parents of disabled children and their sense of depression was investigated and the result was as follows. The factors of satisfaction with leisure activities were found to be having negative correlation with the sense of depression in the following order: environmental satisfaction (r=-. 725, p<. 001), psychological satisfaction (r=-. 713, p<. 001), relaxational satisfaction (r=-. 688, p<. 001), educational satisfaction (r=-. 672, p<. 001), social satisfaction (r=-. 573, p<. 001) and physical satisfaction (r=-. 568, p<. 001). Specifically, the

depressive emotions, physical and action slowdowns and social relationships, the subscales of sense of depression, were found to be having negativerelationship with the level of satisfaction with leisure activities, and the positive emotion is found to be having positive relationship with the level of satisfaction with leisure activities.

<a href="#"><Table 1> Correlation between the level of satisfaction with leisure activities and sense of depression</a>

Division		Satisfaction with leisure						Sense of depression					
		activities						,					
			1	2	3	4	5	6	7	8	9	10	1
Satisfa	Physical	1	1										
ction	satisfacti												
with	on												
leisure	Psychol	2		1									
activiti			704										
es	satisfacti		***										
	on												
	Educatio	3			1								H
	nal		680	802									
	satisfacti		***	***									
	on												
	Social	4				1							H
	satisfacti		512	747	576								
	on		***	***	***								
	Relaxati	5					1						H
	onal		685	887	694	702							
	satisfacti		***	***	***	***							
	on												
	Environ	6						1					H
	mental		727	788	726	706	780						
	satisfacti		***	***	***	***	***						
	on												
Sense	Depressi	7							1				
of	ve		523	648	616	503	653	668					
depres	emotion		***	***	***	***	***	***					
sion	Positive	8								1			
	emotion		431	567	554	479	509	584	602				
			***	***	***	***	***	***	***				
	Physical	9				٠.					1		
	and		482	598	545	472	571	601	871	465			
	action		***	***	***	***	***	***	***	***			
	slowdo												
	wn												
	Social	1										1	П
	relations	0	571	697	656	596	682	687	624	559	615		
	hip		***	***	***	***	***	***	***	***	***		
Sense of 1		1			-:	-:							1
depression 1		1	568	713	672	573	688	725	954	743	909	744	
_		***	***	***	***	***	***	***	***	***	***		
*** n 001									•				

\*\*\* p<. 001

# 3.3 Effects of satisfaction with leisure activities on the sense of depression

The result of analysis on the effects satisfaction with leisure activities of parents of disabled children on their sense of depression is as presented on <Table 2>. Multiple regression analysis was conducted to investigate the effects of satisfaction with leisure activities of parents of disabled children on their sense of depression and the result gave  $\mathbb{R}^2$ 

=0. 595, implying that 59. 5% of the global variation explains the regression model. The variance analysis resulted that the estimated model is valid (F=55. 012, p<. 001) and that the environmental satisfaction ( $\beta$ =-. 379, p<. 001) has more significant influence on the sense of depression than the educational satisfaction ( $\beta$ =-. 210, p<. 01). Therefore, it was revealed that the higher the level of environmental and educational satisfaction with leisure activities there is, the lower the sense of depression is likely to be.

<Table 2> Effects of satisfaction with leisure activities on the sense of depression

Di	Dependent variable: sense of depression									
		В	Standard	β	t	p	VIF			
			deviation							
(cor	3.	. 093		41.						
		821			294***	000				
Satisfaction	Physical	. 034	. 036	. 064	. 952		2.			
with leisure	satisfaction					342	519			
activities	Psychological		. 069		-1. 357		7.			
	satisfaction	094		161		176	816			
	Educational		. 044		-2. 757**		3.			
	satisfaction	120		210		006	236			
	Social	. 007	. 034	. 014	. 207		2.			
	satisfaction					836	565			
	Relaxational		. 065		-1. 612		5.			
	satisfaction	105		157		108	292			
	Environmental		. 044		-4.		3.			
	satisfaction	200		379	563***	000	827			
$R^2 = 595$ adi $R^2 = 584$ F = 55 012***										

p<. 01. \*\*\* p<. 001

# 3.4 Effects of satisfaction with leisure activities on the subscales of the sense of depression

### 3.4.1 Effects on the positive emotions

The effects of satisfaction with leisure activities of parents of disabled children on their positive emotion, a subscale of sense of depression, were investigated and the result was as follows. The influence of satisfaction with leisure activities on the positive emotion has  $\mathbb{R}^2$ =0. 391, implying that 39. 1% of global variation explains the regression model, and the result of variance analysis showed that the estimated model is valid (F=24. 037, p<. 001). It was found that the environmental satisfaction ( $\mathfrak{F}$ =. 352, p<. 01) has more significant influence on the positive emotion than the educational satisfaction ( $\mathfrak{F}$ =. 217, p<. 05). Such result revealed that the higher the levels of environmental and educational satisfaction with leisure activities there are, the higher the degree of positive emotion there is.

# 3.4.2 Effects on the depressive emotions, physical and action slowdowns and social relationships

The influence of satisfaction with leisure activities of parents of disabled children on their depressive emotion has  $R^2=0$ . 512, implying that 51. 2% of global variation explains the regression model, and the result of variance analysis showed that the estimated model is valid (F=39. 415, p<. 001). It was

found that the environmental satisfaction ( $\beta$ =-. 358, p<. 001) has the most significant influence on the depressive emotion, followed by the relaxational satisfaction ( $\beta$ =-. 283, p<. 01) and the educational satisfaction ( $\beta$ =-. 211, p<. 05). Such result means that the higher the levels of environmental, relaxational and educational satisfaction with leisure activities there are, the lower the degree of depressive emotion there is. The influence of satisfaction with leisure activities of parents of disabled children on their physical and action slowdowns has  $\mathbb{R}^2=0$ . 407, implying that 40. 7% of global variation explains the regression model, and the result of variance analysis showed that the estimated model is valid (F=25.776. p<. 001). It was found that only the environmental satisfaction ( $\beta$ =-. 314, p<. 01) has a significant influence on the physical and action slowdowns. Such result means that the higher the levels of environmental satisfaction with leisure activities there is, the lower the degree of physical and action slowdowns there is.

The influence of satisfaction with leisure activities of parents of disabled children on their social relationships has  $R^2$ =0. 561, implying that 56. 1% of global variation explains the regression model, and the result of variance analysis showed that the estimated model is valid (F=47. 903, p<. 001). It was found that the environmental satisfaction ( $\beta$ =-. 228, p<. 01) has the most significant influence on the sense of depression in social relationships, followed by the educational satisfaction ( $\beta$ =-. 226, p<. 01) and the relaxational satisfaction ( $\beta$ =-. 212, p<. 05). Such result infers that the higher the levels of environmental, educational and relaxational satisfaction with leisure activities there are, the lower the degree of depression in social relationships there is.

#### 4. Discussions and Conclusion

In this research, the effects of satisfaction with leisure activities of parents of disabled children on their sense of depression were analyzed. The detailed discussions on the results of the study are as follows.

Firstly, it was revealed that the higher the degrees of environmental, relaxational and educational satisfaction with the leisure activities there are, the higher the degree of positive emotion in sense of depression there is. Such result is identical to a study result [9], which showed that the environmental and educational satisfaction on leisure activities tend to have positive influences on the sense of depression. This implies that the satisfaction with leisure activities is a critical factor, which positively influences the sense of depression.

Secondly, the study showed that the environmental, relaxational and educational satisfaction with leisure activities of parent of disabled children significantly influences their sense of depression. Specifically, it was revealed that parents of higher level of environmental satisfaction on leisure activities experience less depressive emotion, physical and action slowdowns and sense of depression in social relationships. Such result is similar to a study result [10], which showed that the level of satisfaction with leisure activities has significant influences on the depressive

emotions and sense of wellbeing. Thus, this result implies that the satisfaction with leisure activities plays an extremely important role to reduce the depression of parents of disabled children and to make positive changes to their lives.

Based on the above results, the following suggestions are made.

The study revealed that the higher the level of satisfaction with leisure activities of parents of disabled children there is, the lower their degree of depressive emotions, physical and action slowdowns and sense of depression in social relationships are likely to be [11, 12]. There is a desperate need for leisure-related policies, which helps reducing the depressive emotions of parents of disabled children through their active engagements in leisure activities. Thus, the contents of this research are expected to serve as the fundamental data for the leisure activation policies for parents of disabled children[13, 14].

In the future, more studies on the effects of satisfaction with leisure activities of parents of disabled children on their sense of psychological wellbeing are required.

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