

## **Study on the Influence of Resilience on Suicidal Impulse of the Elderly Population in City and Fishing Village**

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### **Abstract**

This study aims to analyze the influence of the resilience on the suicidal impulse of the elderly population in the city and fishing village. The survey was conducted on the elderly people living in city and fishing village in Jeonnam province from August 1, 2014 to September 30, 2014. T-test, correlational analysis, and regression analysis were performed by using SPSS/WIN 18.0 to measure the resilience of the elderly living in city and fishing village. The actual analysis was performed at the significance level of 5%. The result of the present study indicated that the suicidal impulse of the elderly in city and fishing village did not have significant correlation to the care from the family and the society, peer social expectation, and peer positive correlation. Instead, the resilience of the elderly was shown to have influence on suicidal impulse with respect to the community care and expectation factors. The implications of the present study are expected to become resources to develop programs to prevent suicidal impulses of the elderly according to their resilience.

**key words** : Elderly population in cities and fishing villages, elderly resilience, elderly suicidal impulse, community care, social expectation

## **1. Introduction**

### **1.1 Necessity of Study**

Recent increase in the individual income and improvement in the medical technology have increased the average life span of the elderly and marked the entrance to the extreme ageing society. According to the National Statistics Office, the elderly suicidal rate in Korea was the highest among the OECD countries in 2013; the elderly poverty has a close relationship with the suicidal rate; and for every 100,000 elders, the suicidal rates of those between 65 – 69 years old and those between 70 – 74 years old were 107.4 and 158.6, respectively, indicating high level of suicidal rate [1]. The factors affecting elderly suicidal rate are found to be fostering cost, social welfare cost, relative poverty, elderly economic activity participation rate, and the increased ageing ratio, in the order of frequent occurrence. In order to solve these problems, finding solutions to decrease the cost of elderly fostering in the rapidly ageing society shall be done first [2]. The elderly without religion showed to have a significantly high rate of suicidal thought, and those believing their life quality to be low showed high rate of suicidal thought. Those who believed that their health was not good tended to have significantly high rate of suicidal thoughts, and those with depression and pain showed high rate of suicidal thought [3].

The suicidal rate due to disease was high for those who were not healthy. In other words, suicidal thoughts were different according to the degree of pain. Thus, it was acknowledged health condition, daily work capability, and family support, etc. On the other hand, the number of physical diseases, pain, and mental pain showed correlation to the number of suicides and the suicidal thoughts [4].

Recently, there have been many studies regarding the elderly suicidal rate. Most of the previous studies, however, were on the elder abuse and suicidal impulses, and not enough on the influence of elderly resilience on suicidal impulse, according to different regions. Therefore, this study plans to investigate the effects of resilience on the suicidal impulse of the collective group of the elderly population in city and fishing village, and discuss the importance of preventing suicidal impulses.

Studies on resilience were reported on family resilience and ego resiliency [5]. Previous studies indicated that the family resilience controls the elderly suicidal thought and quality improvement. Thus, this study aims to analyze the influence of resilience of the elderly population in city and fishing village on the suicidal impulses.

### **1.2 Problem Statement**

Specific problems of this study are as follows.

First, what are the characteristics of the resilience of the elderly in city and fishing village and the suicidal impulse?

Second, what are the effects of the resilience of the city elderly on suicidal impulse?

Third, what are the effects of the resilience of the fishing village elderly on suicidal impulse?

**2. Study Method**

**2.1 Study Subject and Design**

From August 1, 2014 to September 30, 2014, questionnaire survey was conducted on the elderly people living in cosmopolitan areas. The subjects either self-reported the questionnaires, or were paralleled with individual interviews for the final evaluation. The sample size of study subject was calculated by using G\*Power 3.1, based on Cohen's official program. The significance level was set at 5%, and the examination rate and effect size were set at 90% and 0.5, respectively; thus the minimum sample size was calculated to be 70 people.

**2.2 Study Tool**

**2.2.1 Socio-Demographic Characteristics**

Five questionnaire items were used as subordinate factors for the socio-demographic variable, measuring the characteristics factor tool [6], which includes gender, age, marital status, and the principal caregiver in the family. The ratio between the genders was set similarly for both city and fishing village.

**2.2.2 Characteristics of the Factors Influencing Suicidal Impulse**

The questionnaire for the socio-demographic characteristics [7] was used.

**2.2.3 Characteristics of the Elderly Resilience Scale Factor**

The socio-demographic characteristics factor was measured with a total of six questionnaire items. The questionnaire items for the resilience scale characteristic factor [8] were used in the survey. The validity of the elderly resilience scale was measured by using six items, in which 1 to 6 points were attributed to "strongly disagree," "disagree," "somewhat disagree," "somewhat agree," "agree," and "strongly agree," in an ascending order.

**2.3 Reliability Verification**

Reliability, the measuring tool for this study, was analyzed by using Cronbach's coefficient,  $\alpha$ , and the result is as shown in <Table 1>.

**<Table 1> Verification of Reliability in Each Area**

Description	Paragraph Count	Reliability
Suicide Impulse	28	.932
Family Function	Family Cohesion	.600
	Family Adaptation	.606
Family Function	20	.694
Family Intimacy	5	.604

## **2.4 Data Analysis Method**

The data of this study were statistically processed as follows. In order to understand the suicidal impulse according to the socio-demographic characteristics of the elderly in city and fishing village, Chi-square ( $\chi^2$ ) test was performed. Reliability about suicidal impulse and family intimacy was determined by using Cronbach's coefficient,  $\alpha$ . In order to understand family intimacy and suicidal impulse of the elderly in city and fishing village, t-test was performed. The result from the t-test was then analyzed through correlation analysis and multiple regression analysis. The actual analysis of this study was all verified at the significance level of 5%, and SPSS program was used for the statistical analysis.

## **3. Study Results**

### **3.1 Socio-Demographic Characteristics**

The socio-demographic characteristics of the respondents showed a higher ratio in female for city, as opposed to a higher ratio in male for fishing villages. In terms of the religion, those in city believed in 'Buddhism,' 'Christianity,' 'Catholics,' and 'none,' in descending order, and those in fishing village were believed in 'none,' 'Buddhism,' and 'Christianity,' in descending order. For the marital status, 75.0% and 71.0% were found to be married in city and fishing village, respectively. However, 12.0% of the respondents in city answered to have 'divorced,' showing a higher rate than that of fishing villages.

### **3.2 Resilience of the Elderly in City and Fishing Village and Suicidal Impulse**

The results of the resilience of the elderly in city and fishing village and suicidal impulse areas shown in <Table 2>.

The average resilience was 3.39, and 3.41 for the elderly in city and fishing village, respectively, indicating not much difference. However, family care and expectation for the elderly in city was 3.26, while that of the elderly in fishing village was 2.72. In other words, city elderly showed higher resilience ( $t=3.195$ ,  $p<.01$ ). Significant correlation in social (group) was found to be higher for the city elderly, with an average value of 3.42, as compared to those in fishing village, whose average value was 3.08 ( $t=2.273$ ,  $p<.05$ ). For community care and expectation, city elderly averaged 2.86, while fishing village elderly averaged 2.38, the former showing a higher resilience ( $t=2.708$ ,  $p<.01$ ). The significant correlation for community came out to be higher for the city elderly, with average of 2.78, while those in fishing village averaged 2.10. Again, the rating of the former group was higher in resilience ( $t=3.812$ ,  $p<.001$ ). In suicidal impulse, city elderly averaged 1.45, while fishing village elderly averaged 0.58, the former showing a higher suicidal impulse ( $t=17.371$ ,  $p<.001$ ).

**<Table 2 >Resilienceand Suicidal Impulseof the Elderly inCity and Fishing Village**

Category		City (N=100)		Fishing Village (N=100)		t	p
		Mean	SD	Mean	SD		
Elderly Resilience	Family care and expectation	3.26	1.38	2.72	.98	3.195**	.002
	Significantinteraction at home	3.54	1.26	3.73	.85	-1.250	.213
	Society (group) care and expectation	3.24	1.04	3.08	.93	1.143	.254
	Significantinteraction in society (group)	3.42	1.16	3.08	.94	2.273*	.024
	Community care and expectation	2.86	1.27	2.38	1.23	2.708**	.007
	Significantinteraction in community	2.78	1.31	2.10	1.18	3.812***	.000
	Social expectation of the peer	3.13	1.28	3.33	1.08	-1.236	.218
	Positive interaction with peer	3.32	1.30	3.33	.76	-.066	.947
Elderly Resilience		3.39	.75	3.41	.68	-.148	.883
Suicidal Impulse		1.45	.37	.58	.34	17.371***	.000

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

### 3.3 Influence of Resilience of the Elderly in City on Suicidal Impulse

The result of correlation relationship between city elderly resilienceand suicidal impulse is as shownin <Table 3>.

The subordinate factors to family did not show significant correlation to the elderly resilience and suicidal impulse.

**<Table 3> Correlation between the Resilience of the City Elderly and Suicidal Impulse**

Category		Elderly Resilience								Elderly resilience	Suicidal impulse
		Family Care	Family interaction	Social Care	Social interaction	Community care	Community interaction	Peer expectation	Peer interaction		
Elderly Resilience	Family care and expectation	1									
	Meaningful interaction at home	.010	1								
	Society (group) care and expectation	-.012	-.163	1							
	Meaningful interaction in society (group)	-.118	.071	.143	1						
	Community care and expectation	.002	.051	-.035	.017	1					
	Meaningful interaction in community	-.044	.129	-.012	.108	.097	1				
	Social expectation of the peer	.007	.165	.045	.174	-.012	.044	1			
	Positive interaction with peer	.070	.118	.130	.106	.018	.065	.154	1		
Elderly Resilience	.000	.726***	.560***	.160	.018	.100	.170	.190	1		
Suicidal Impulse	.011	-.060	-.078	.137	-.067	.157	-.025	.026	-.105	1	

\*\*\*  $p < .001$

\* The result of the influence of resilience on suicidal impulse of the elderly in fishing village is as shown in <Table 4>.

<Table 4 > Influence of Resilience of the Elderly in Fishing Village on Suicidal Impulse

Category		Dependent Variable : Suicidal Impulse					
		B	Standard Error	$\beta$	t	p	VIF
(Constant)		.143	.255		.561	.576	
Elderly Resilience	Family care and expectation	.045	.034	.128	1.331	.187	1.057
	Meaningful interaction at home	- .044	.039	- .109	-1.122	.265	1.076
	Society (group) care and expectation	.064	.035	.174	1.802	.075	1.066
	Meaningful interaction in society (group)	.055	.036	.152	1.546	.126	1.102
	Community care and expectation	.067	.028	.242	2.414*	.018	1.149
	Meaningful interaction in community	.023	.028	.081	.830	.409	1.089
	Social expectation of the peer	.044	.032	.138	1.388	.168	1.133
	Positive interaction with peer	- .075	.047	- .165	-1.590	.115	1.230
$R^2 = .204$ , adj $R^2 = .134$ , $F = 2.916^{**}$							

\*  $p < .05$ , \*\*  $p < .01$

#### 4. Discussion and Result

The present study analyzed the suicidal impulse, according to the resilience of the elderly living in city and fishing village. The discussion of results is as follows.

First, elderly resilience showed significant difference between city elderly and fishing village elderly in terms of family care, family expectation, and social (group) community care. Furthermore, suicidal impulse also showed significant difference between city elderly and fishing village elderly. This result illustrated that the elderly suicidal thought increased as their health condition deteriorated, as they were more depressed, and as the sub-factors of recovery resilience, the ability to self-control and positivity, decreased. Hence, the result corresponds to that of a study about influence of recovery resilience and depression on suicidal impulse, in which high recovery resilience and low depression level were found to reduce suicidal impulse [9].

Second, the suicidal impulse of the city elderly did not show significance in relation to any subordinate factor of the elderly resilience. In other words, there was negative correlation between suicidal impulse and elderly social support, self-respect, and social participation [10,11].

Third, there was no significant correlation between subordinate factors of city elderly resilience and suicidal impulse. In other words, this illustrates that there was negative correlation between suicidal impulse and the elderly social support, family resilience, and self-respect [9].

Based on the above findings, the following can be suggested. First, the care and expectation of the family and community differed for the elderly in city and fishing village. This result is expected to become fundamental resource to improve the suicidal impulse preventive policies for the elderly. Second, the suicidal impulse of the elderly in city and fishing village was not significantly correlated to the family and social care, social expectation of the peer, and positive mutual relationship with the peer. This result stresses the psychological treatment of the elderly in city and fishing village in the suicidal impulse prevention policy. Third, community care and expectation from the elderly resilience were only subfactors that showed significant influence on suicidal impulse. This result is expected to serve as fundamental resource to improve suicidal impulse prevention policy in relation to the elderly resilience.

In the future, more studies shall be conducted to investigate the influence of elderly psychological factors on suicidal impulse.

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