

MEDIATING EFFECTS OF SNS FATIGUE BETWEEN RELATIONSHIP SNS ADDICTION AND DEPRESSION IN THE MIDDLE-AGED KOREANS IN THEIR 40S

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ABSTRACT

The aim of this study is to investigate mediating effects of SNS fatigue between relationship SNS addiction and depression in the mid-forties Korean. Data for this study were collected through the use of a survey instrument completed by 400 middle-aged Koreans in their 40s who have used SNS in the last 3 months. Collected data were analyzed by using structural equation model. The findings of this study are as follows: First, The results of path analysis revealed that The SNS addiction showed a significant effect on The SNS fatigue(path coefficient=.665, $p<.001$), suggesting middle-aged Koreans in their 40s with higher addictive using SNS had higher level of the SNS fatigue. The SNS fatigue showed a significant effect on depression(path coefficient=.341, $p<.001$). suggesting middle-aged Koreans in their 40s with higher the SNS fatigue had higher level of depression.Second, The SNS addiction didn't showed significant impact on the depression. Third, The analysis resulted confined the full mediation effects of The SNS fatigue in the relations between The SNS addiction and depression(indirect effect .374, $p<.001$) among middle-aged Koreans in their 40s. As a result of the research through the competition model strategy, it is more appropriate to use the full mediation effects model.

Keywords: SNS addiction , SNS fatigue, depression, mediation effects.

Introduction

As social network service(SNS) has rapidly spread into the society, it has become part of everyday life. The popularization of SNS promotes positive changes such as formation and expansion of social relationship and the knowledge and information sharing. In recent years, many researchers have reported a variety of side effects and problems of SNS communication such as the formation of unexpected social relations, the intrusion of privacy, the cyber violence and SNS addiction. These negative influence gives us a new perspective that the excessive use of SNS can cause user's fatigue. SNS fatigue refers to the degree of discomfort and burden in the process of using SNS and constantly interacting with others through SNS. SNS fatigue consists of over-information, the worry about the personal information leakage and privacy invasion, relative deprivation, the burden on the SNS use, and recognition of reputation from others. Therefore, this study purpose to identify the antecedents and consequences of SNS fatigue. Especially, SNS fatigue is significantly related to addictive use of SNS. And SNS addiction and SNS fatigue may be related to mental health problems such as depression. The aim of this study is to investigate mediating effects of SNS fatigue between relationship SNS addiction and depression in the mid-forties Korean.

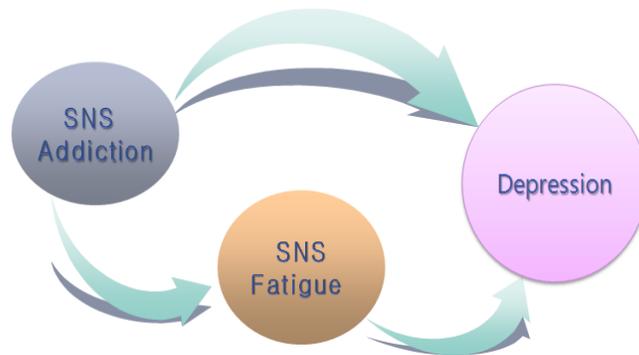
Research Model and Hypotheses

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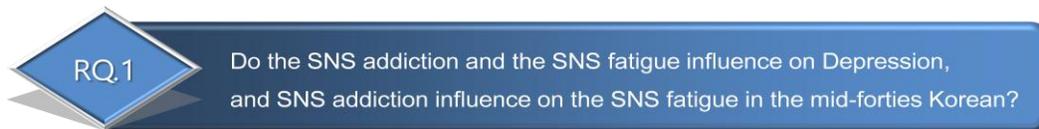
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- **Research Model**



<Figure 1> Research Model

- **Research question and hypotheses**



- 1-1. The SNS addiction and the SNS fatigue will affect some positive(+) influence on depression.
- 1-2. The SNS addiction will affect some positive(+) influence on the SNS fatigue.



2. The SNS fatigue will fatigue have a mediating effect on the relationship between SNS addiction and depression.

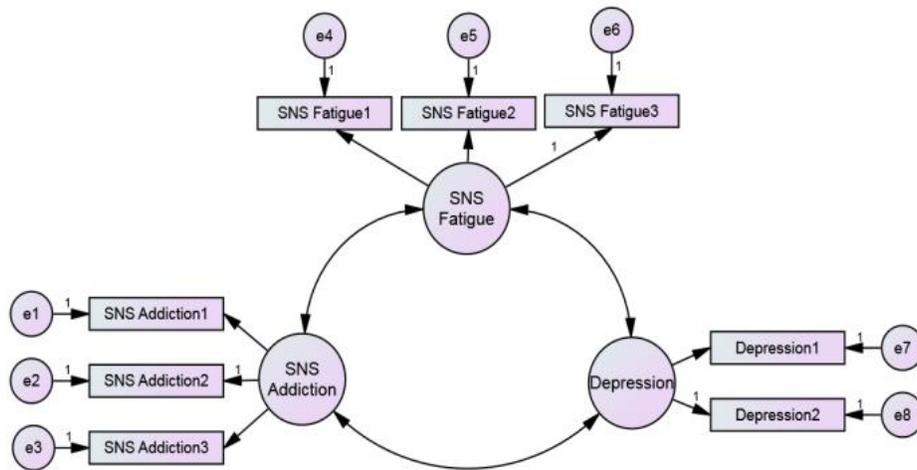
Method

1. **Participants:** 400 middle-aged Koreans in their 40s by using SNS.
2. **Measures :** SNS Addiction Tendency Scale(Cho & Soe, 2013), SNS Fatigue scale(Lee, 2015), Patient Health Questionnaire-9(PHQ-9), Control variables(Sex: male=1, female=2, Marital status: 1=single, 2=married)
3. **Data analysis :**
 - Structural Equation Modeling in AMOS 22.0 and SPSS 22.0 were adopted to examine measurement model
 - Mediating effects of sns fatigue by using bootstrapping method.

Results

- **Measurement model**

Overall model fitness were close to the acceptable level, specifically the goodness of fit index(GFI) was .968, the comparative fit index(CFI) was .982, and TLI=.97, RMSEA=.072, SRMR=.038.



<Figure 2> Measurement Model

<Table 1> Measurement Model

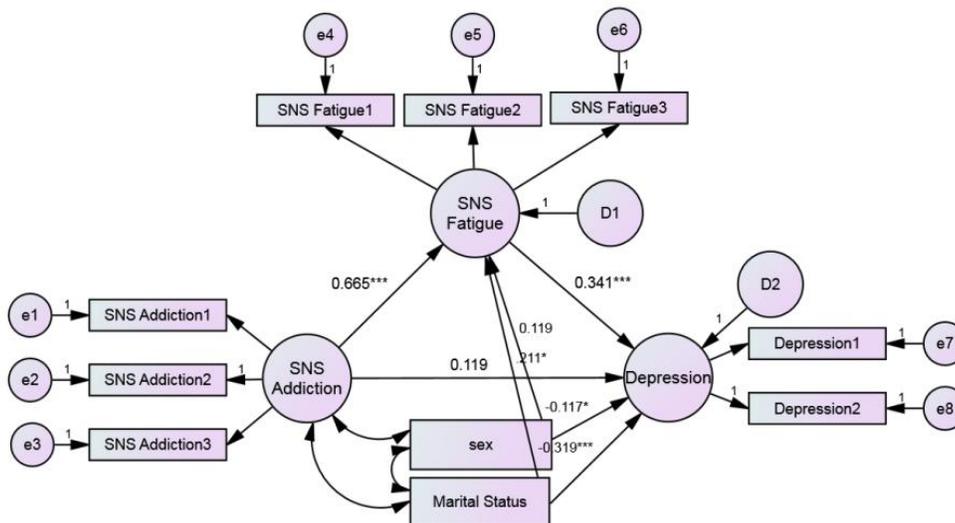
Latent variables	Observed variable	Estimate		SE	CR	c.r	AVE
		B	β				
Depression	Depression1	.732	.818	.087	9.420***	.920	.854
	Depression2	.924	1.000				
SNS Addiction	SNS Addiction1	.945	.965	.028	35.074***	.975	.928
	SNS Addiction2	.926	1.000				
	SNS Addiction3	.933	.985	.029	33.738***		
SNS Fatigue	SNS Fatigue1	.462	.540	.068	7.991***	.765	.541
	SNS Fatigue2	.502	.511	.060	8.584***		
	SNS Fatigue3	.871	1.000				

$\chi^2=52.578$, $df=17$, $p<.001$, $GFI=.968$, $CFI=.982$, $TLI=.970$, $SRMR=.0038$, $RMSEA=.072$.

*** $p<.001$

- Structural model

1. The results of path analysis revealed that The SNS addiction showed a significant effect on The SNS fatigue(path coefficient=.665, $p<.001$), suggesting middle-aged Koreans in their 40s with higher addictive using SNS had higher level of the SNS fatigue.
2. The SNS fatigue showed a significant effect on depression(path coefficient=.341, $p<.001$). suggesting middle-aged Koreans in their 40s with higher the SNS fatigue had higher level of depression.
3. The SNS addiction didn't showed significant impact on the depression.
4. The analysis resulted confined the full mediation effects of The SNS fatigue in the relations between The SNS addiction and depression(indirect effect .374, $p<.001$) among middle-aged Koreans in their 40s. As a result of the research through the competition model strategy, it is more appropriate to use the full mediation effects model(<Table 3>).



<Figure 3> Structural Model

<Table 2> Structural Model

Path	Estimate		SE	CR	Squared Multiple correlations
	B	β			
SNS Addiction → SNS Fatigue	.664	.665	.049	13.444***	
SEX → SNS Fatigue	.014	.019	.063	.301	.457
Marital Status → SNS Fatigue	.097	.211	.099	2.122*	
SNS Fatigue → Depression	.406	.341	.076	4.514***	
SNS Addiction → Depression	.142	.119	.064	1.864	.287
SEX → Depression	-.101	-.117	.054	-2.185*	
Marital Status → Depression	-.175	-.319	.085	-3.740***	

$\chi^2=66.855$, $df=27$, $p<.001$, $GFI=.968$, $CFI=.980$, $TLI=.966$, $RMSEA=.061$, $SRMR=0.036$.

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

<Table 3> Compare the research model VS the competing model

Path	χ^2	df	$\Delta\chi^2$ (Δdf)	GFI	CFI	TLI	RMSEA	SRMR
Research model	66.855	27	2.827(1)	.968	.980	.966	.061	.036
Competing model	69.682	28		.966	.979	.966	.061	.036

<Table 4> Mediator Effect (Bootstrapping)

Path	Total Effect	Direct Effect	Indirect Effect	Indirect confidence interval
SNS Addiction → Depression	.376		.376	.249~.384**

** $p < .01$

Implication

1. There are implications for forming the basis of following research and making a plan to support the healthy using of SNS.
2. Social welfare services should be developed intervention programs for middle-aged Koreans in their 40s for those who are addicted to SNS and feel fatigued.

Acknowledgement

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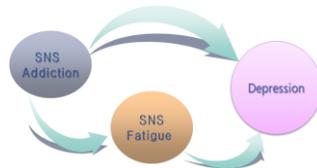
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02 Method

1. Research Model



2. Research Question

RQ.1 Do the SNS addiction and the SNS fatigue influence on Depression, and SNS addiction influence on the SNS fatigue in the middle-aged Koreans in their 40s by using SNS ?

RQ.2 Do the SNS fatigue have a mediating effect on the relationship between SNS addiction and depression?

3. Participants

- 400 middle-aged Koreans in their 40s by using SNS by random.

4. Measures

- SNS Addiction Tendency Scale(Cho & Soe, 2013)
- SNS Fatigue scale(Lee, 2015)
- Patient Health Questionnaire-9(PHQ-9)
- Control variables(Sex: male=1, female=2, Marital status: 1=single, 2=married)

5. Data analysis

- Structural Equation Modeling in AMOS 20.0.
- Mediating effects of social support and job stress by using bootstrapping method.

03 Result

1. Measurement Model

- Overall model fitness were close to the acceptable level, specifically the goodness of fit index(GFI) was .968, the comparative fit index(CFI) was .982, and TLI=.97, RMSEA=.072, SRMR=.038.

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