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Structural Relationship between Psychosocial Factors Affecting Motivation for Change in Alcoholics

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Abstract

The purpose of this study was to investigate the relationship between psychosocial factors, such as self-esteem, stress coping, and social support, and motivation for change in alcohol dependent inpatients. This study included 179 inpatients in the 7clinics for alcoholic in Chonbuk . For the analysis of the study questions, this study utilized the structural equation modeling. The results show that self-esteem was related to motivation for change with mediating role of problem-focused stress coping strategy in alcohol dependent inpatients. The study also reveal that self-esteem and social support was directly associated with the motivation for change. Based on the findings, the importance of programs to promote self-esteem and the involvement of family and acquaintances in the treatment process has been suggested.

Keywords: motivation for change, alcoholics, self-esteem, social support, stress coping

1. Introduction

Alcoholism is the highest lifetime prevalence among all mental illnesses in Korea. According to the Ministry of Health and Welfare's Epidemiological Survey of Mental Illness, the lifetime prevalence of mental illness is 27.6%, and the lifetime prevalence of alcohol dependence and abuse was 13.4%[1]. Alcoholism, in particular, has a higher relapse rate than any mental illness and tends to give up treatment easily. Previous studies have shown that 50-60% of treated alcoholics relapse within three months, with a high relapse rate becoming the biggest obstacle to the treatment and rehabilitation of alcoholism[2]. Although the re-admission rate is increasing because of alcoholism, many people still tend to think that alcoholism is not a disease that requires treatment, but rather a drinking behavior. For this reason, when patients are hospitalized, they are often unable to comply with treatment and have low motivation for change. Most alcoholics use denial defense mechanisms, so they lack motivation to change, are not cooperative with treatment, and tend to be less focused. In addition, they are difficult to treat because of the high level of depression as they progress through the chronic process and difficulty in forming treatment motives due to lack of patience[3].

According to previous studies, it is important to improve the motivation for change, in order to help alcoholic minors. Motivation for change in alcoholics is a key component of the recovery process and means the readiness and potential for change to accept, maintain and defend systematic change strategies[4]. Alcoholics suffer from low self-esteem, loneliness, shame and self-pity compared to the general population. Therefore, people with low self-esteem are more likely to abuse alcohol. This self-esteem is known to play an important role in the motivation and behavioral change of treatment. The low self-esteem of alcohol addicts makes early intervention difficult, and even after starting treatment, they stop receiving treatment for

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physical complications. In addition, alcoholics face various psychosocial problems due to alcohol problems, and these stresses are exacerbated by the chronic alcoholism[5]. However, alcoholic addicts tend not to develop adequate stress coping with such psychosocial problems, so they are likely to engage in previously learned drinking behavior when under stress. Previous studies tended to focus mainly on the psychosocial factors of alcoholics. In particular, those studies have focused on the psychosocial factors among the factors influencing change, and have examined the influence of individual variables, but it is rare to find out which mechanisms influence the change in motivation. In other words, previous studies have identified only the direct effects of psychosocial factors on the motivation for change, but the path through which these factors influence the motivation for change remains unclear. Understanding the mechanisms by which change motivation, which is an important concept for the treatment and rehabilitation of alcohol addicts, can be improved or worsened. The purpose of this study was to investigate how the psychosocial factors such as self-esteem, stress coping style, and social support affect the motivation for change of alcohol addicts. Through this, various social welfare strategies and implications to improve motivation for change, which are important concepts in rehabilitation of alcoholics, are drawn.

2. Theoretical background

2.1. Characteristics and Motivation for Change of Alcoholics

Alcoholism is a temporal mental disorder that can frequently occur as one of the substance-related disorders with multiple causes and various clinical features. It is reported that the characteristics of alcoholics are shy, isolated, patient, uneasy, sensitive and sexually suppressed[6]. Alcoholics are sensitive to unpleasant feelings, feelings of guilt, self-loathing, despair, loneliness, etc. They try to solve the difficulty by drinking in an external situation where internal conflict or stress occurs. They are often characterized by a lack of social support, high levels of depression and impatience as alcohol dependence goes through a chronic process[7]. Most alcohol-dependent patients are involuntarily admitted and use a defense mechanism called denial, so they lack motivation to change, are not cooperative in treatment or education, and tend to be less focused. In particular, self-esteem was reported to be significantly lower than those who were not alcoholic. Alcohol addicts are also more likely to have lower self-esteem, loneliness, shame and self-pity than the general population, and those with low self-esteem are more likely to abuse alcohol[8]. In the recovery of alcohol dependence, cognitive factors, such as expectations and motivations for change outcomes, have a greater impact than certain therapeutic interventions[7]. The motivation to change alcoholism is to increase awareness of alcoholism and affect alcoholism[9].

In Prochaska and DiClemente[10], the transtheoretical model, which describes successive stages of change, suggests that motivation for change is a willingness to change a particular behavior, and that the degree or level of motivation is not fixed but variable over time and circumstances. It was. The greater the intensity or amount of motivation a person currently has, the more likely it is to change habitual maladaptive behavior. Some studies have defined alcohol motivation as a key concept in making a decision to reduce alcohol use or initiating addiction treatment, as well as a deeply connected element of behavioral change [11] [7]. Miller and Tonigan[12] describe motivation for change as a concept of perception, ambivalence, and practice of change.

2.2 Factors affecting motivation for Change in Alcoholics

The prognosis of alcoholics is reported to have a greater influence on social and behavioral factors than therapeutic factors[7]. Self-esteem is not only a personality characteristic found in alcoholics but also serves as a cause of motivation to overcome it[13]. In other words, alcoholic addicts usually have low self-esteem, but at the same time, the concept of self-esteem is very important in order to improve motivation to change the lives devastated by drinking. The decision to change away from chronic and habitual maladaptive behavior is a unique and emotional process that is related to an individual's values. Therefore, the concept of self-esteem, such as the inner feeling of how you are and the perception of your unique role, influences the

motivation for change.

For alcoholics, self-esteem is also associated with coping with stress. People with high self-esteem can protect themselves from psychological difficulties, so they are more proactive and effective in dealing with them and have a high motivation to solve them in problem situations. The difference in self-esteem is most pronounced when faced with life events such as success or failure[14]. It is reported that people with high self-esteem and those with low self-esteem responded similarly to positive events but differently to negative ones. In addition, how to cope with stress in alcoholics is related to the motivation to change the performance of stop drinking. Drinking alcohol as a response to stress increases the alcohol-related risk and lowers the motivation to change the drinking problem[15]. The likelihood of relapse is significantly reduced if alcoholics are able to carry out an effective response in the stress-inducing situation. In other words, individuals who respond successfully to stressful situations will experience mastery or control, and once they learn how to cope successfully with the problematic situation, they will be able to respond successfully to the situation they encounter later. In particular, the more motivated the change is, the more effective it is to improve problem-focused coping and subtypes of active problem solving behavior, positive reinterpretation and growth[16].

In addition, social support for alcoholics is reported as a factor influencing and maintaining motivation for change. It is well known that social support for alcoholics is generally poor compared to the general public. That is, the level of the support system due to frequent relapse of alcoholism is very low. There can be many types of social support such as family, friends, co-workers, neighbors, etc. However, in Korea, most of the alcoholics are chronic, so the family is the only support system. Alcoholic dependents often change their drinking behavior because of concerns about their relationships with loved ones(spouse, children, parents, heterosexual friends and friends)[7]. Carroll[17] examined the relationship between alcoholics and social support and reported that the more perceived social support, the less recurrence. In particular, strong support from family and friends has been reported to be a strong factor in positively affecting the outcome of treatment, such as duration of treatment and behavioral improvement, and continuing after treatment[18][19].

As mentioned above, previous studies have tended to focus on identifying direct relationships with factors influencing change motivation. The psychosocial factors are concepts that are related to each other, and although there may be indirect pathways, especially where one factor causes and affects other factors, previous studies do not identify such direct or indirect effects of psychosocial factors. Therefore, this study analyzed structural causal pathways of psychosocial factors affecting motivation for change by applying structural equation modeling to alcohol addicts.

3. Methods

3.1. Research model

The purpose of this study is to investigate the structural relationship between self-esteem, stress coping, and social support to effect motivation for change of alcoholic addicts. To this end, this study established a research model as shown in <Figure 3-1> through a review of previous studies.

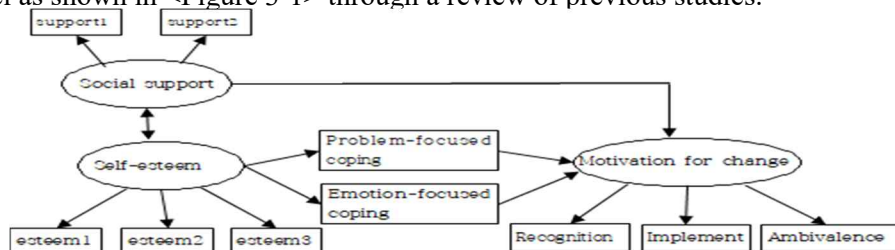


Figure 3-1. Relationship of psychosocial factors to motivation for change of alcoholics

3.2 Study subjects and data collection method

The subjects of this study were patients admitted to 7 alcohol specialty hospitals and psychiatric hospitals located in Chonbuk and diagnosed with alcohol use disorder based on DSM-IV-TR by psychiatrist. The patients with no cognitive impairment in understanding the questionnaire were resolved after the detoxification period passed. The survey was conducted in September to December 2016 by a researcher and the staffs in the hospitals visiting the hospital in person. A total of 179 questions were included in the analysis, except for 41 questions with a total of 220 copies of the questionnaire.

3.3 Variables and Measures

Motivation for change measure was measured on the Stage of Change Readiness and Treatment Eagerness Scale (SOCRATES) developed by Miller and Tonigan[12] to assess the level of motivation for change for problem drinkers. This was measured using 19Korean-language SOCRATES-K. SOCRATES-K was designed to assess the motivation for change in alcohol use disorder in accordance with the Korean treatment environment. The motivation for change was composed of three factors: Recognition, Taking Steps, and Ambivalence. The measurement method is a five-point scale, and the evaluation of change motivation is inversely coded for the positive value, and the higher the change motivation score, the higher the motivation for change. In this study, the Cronbach's α was .895. To measure self-esteem, this study used the self-esteem scale developed by Rosenberg[20]. The questions are made up of 10 questions, and the ratings are made on a five-point scale of the Likert method, ranging from one point of 'not at all' to five points of 'very so'. It means that the higher the score, the higher the self-esteem. In this study, the reliability was Cronbach's α = .803. Stress coping was based on the ways of Coping Checklist developed by Folkman and Lazarus[21]. Forty-two questions with problem-focused coping responses(30 questions) and emotion-focused responses(12 questions) were used. This scale was composed of a four-point Likert scale, and the higher the score, the higher the stress. The reliability in this study was Cronbach's α = .854. For social support, the multidimensional social support scale developed by Zimet et al.[22] was used in the revised one from study of Shin and Lee[23]. This scale, developed to measure perceived social support, consists of 12 questions in three subscales: family, friends, and those around them. The scale consisted of a six-point Likert scale ranging from one point of "no disagree" to six points of "agree completely", and the reliability in this study was Cronbach's α = .934.

3.4 Analysis method

In order to analyze the relationship and the path between psychosocial factors influencing the motivation for change of alcoholics, the structural equation model was used. Since the purpose of this study is to verify the structural relationships of various psychosocial variables that influence the motivation for change, a structural equation model that can examine the structural relationships among several variables at the same time is the most suitable analysis method[24]. In order to verify the research model, the normality and outliers of variables were verified in advance, and confirmatory factor analysis was performed to verify the measurement model. In order to verify the model's goodness-of-fit, CFI, TLI, and RMSEA were selected, including the chi-square test and non-sensitive sample size, simplicity, and clear interpretation criteria. If the CFI and TLI are above .9 and the RMSEA is below .05, then the goodness-of-fit criteria can be evaluated [25]. The analysis utilized PASW 23.0 and AMOS 18.0 packages.

4. Results

4.1 General Characteristics of Subjects

<Table 4-1> shows the results of verifying the general characteristics of the study subjects and the variation among subjects. The average age of the subjects in this study was 50 years old. The age ranged from 26 to 80 years, and the 40s(34%) and 50s(35%) were the most common. The highest ratio of educational background was 48.6% for high school graduates and 34% for middle school students or less. Many subjects were divorced or separated(43%), and 23.5% were married. Unemployment was the most

common at 68.7%, and few people were full-time(4.5%) or self-employed(11.2%). As a result, most respondents reported no monthly income(46.4%) or less than 1 million won(32.4%), and many of them received basic living beneficiary benefits(52%). On the other hand, as a result of conducting t-test or F test for analysis of variance to verify the motivation for change according to the general characteristics of the survey subjects, there was only a significant difference in the motivation for change according to the education level difference ($F=4.073$, $p < .05$).

Table 4-1. Comparison According to General Characteristics of Subjects

variables	No(%)	Change motivation	t/F	variables	No(%)	Change motivation	t/F
Gender			.608	Work type			1.748
Male	163(91.1)	69.3		Unemployment	123 (68.7)	69.2	
Female	16 (8.9)	67.1		Temporary	16 (8.9)	66.0	
				Daily	12 (6.7)	63.3	
				Full-time	8 (4.5)	78.0	
				Self-employed	20 (11.2)	71.6	
Age			.937	Income\$			2.587
20s	5(2.8)	64.4		0	83 (46.4)	70.8	
30s	20(11.2)	67.4		<1000	58 (32.4)	65.9	
40s	61(34.1)	70.0		1000-2000	21 (11.7)	66.7	
50s	62(34.6)	68.8		>2000	17 (9.5)	74.5	
60s	20(11.2)	70.0					
>70s	11(6.1)	68.4					
Education			4.073*	Income provider			1.285
<Middle	61(34.1)	68.1		Job	49 (27.4)	67.6	
High	87 (48.6)	67.5		Partner	13 (7.3)	75.9	
>College	31(17.3)	75.4		Children	6 (3.4)	75.2	
				Parents	8 (4.5)	72.1	
				Pension	7 (3.9)	66.2	
				Government	93 (52.0)	67.6	
				Donation	3 (1.7)	75.7	
Marital status			1.245				
Married	42 (23.5)	72.6					
Divorced	77 (43.0)	68.4					
Bereaved	6 (3.4)	68.5					
Unmarried	54 (30.2)	67.4					

* $p < .05$, \$ = a thousand won

4.2 Structural relationship between factors to motivation for change

The analysis results of the measurement model verifying the reliability and validity of the constructs through confirmatory factor analysis before analyzing the structural relationships among the main variables, CFI=.954, TLI=.943, RMSEA=.043, and it was confirmed that the measurement model was in good fit with the data. In addition, all the coefficients of the path from each measurement variable to the latent variable were also statistically significant at the level of significant probability $p < .001$. The results of the structural equation modeling on the structural relationship between self-esteem, stress coping, social support, and motivation for change presented satisfactory level of goodness of fit with CFI=.960, TLI=.930 and RMSEA=.048. <Table 4-2> shows the results of the structural equation modeling of the relationship between psychosocial factors affecting motivation for change of alcoholics. In detail, the self-esteem had a positive effect on emotion-forced coping with stress ($\beta=.693$, $p < .001$), but the problem-forced coping did not have a significant effect on motivation for change ($\beta=.106$, $p > .05$). Self-esteem had a positive effect on motivation for change ($\beta=.363$, $p < .05$) and social support had a positive relationship to motivation for change ($\beta=.206$, $p < .001$). The results of the effect decomposition of the effects of self-esteem on motivation for change are

presented in <Table 4-3>. Self-esteem was found to have a direct effect on motivation for change, as well as an indirect effect on motivation through problem-focused stress response.

Table 4-2. Structural relationship b/t factors to motivation for change

Path	Path coefficient		S.E	C.R.	p
	Non-standardized coefficient	Standardized coefficient			
self-esteem→ problem-focused coping	3.424	.693	.422	8.115	***
self-esteem →emotion-focused coping	.069	.038	.154	.448	.654
problem-focused coping → motivation for change	.030	.106	.025	4.059	.475
emotion-focused coping → motivation for change	.102	.136	.057	3.367	***
social support → motivation for change	.108	.206	.048	3.517	***
self-esteem → motivation for change	.500	.363	.245	2.039	*

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

Table 4-3. Results of effect decomposition

Path	Direct effect	Indirect effect	Total effect
self-esteem → motivation for change	.500*	.109***	.609***

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

5. Conclusions and Suggestions

The purpose of this study was to examine the structural relationship of psychosocial factors that influence the motivation of change in alcoholics. The main results of this study are summarized as follows.

First, as a result of analyzing the differences in motivation for change according to demographic variables, there were significant differences in motivation for change according to the educational level among the demographic variables of the survey subjects. Subjects with higher education levels than college graduates had relatively high motivation for change. These findings are consistent with those of previous studies, and the level of motivation for change differs according to the level of education in previous study[4].

Second, as a result of analyzing the structural relationship of psychosocial factors affecting change motive through verification of structural equation model, self-esteem has a significant influence on change motive through problem-focused stress response. In other words, as the coping with the stress of alcohol addicts showed the problem-centered coping with stress, the change motivation increased. In other words, the higher the self-esteem, the better coping with stress as a problem-centered countermeasure, which is the result of confirming the mechanism that has a positive effect on change motivation. The stress coping style of alcoholic addicts is a psychological vulnerability to drinking behavior, and it is a representative factor that causes drinking behavior and problems[26]. Coping with stress in alcoholics has a significant impact on change motivation when taking a problem-focused, healthy approach. This suggests that motivation for change can be improved by training the stress situation to be overcome by polishing the appropriate stress coping skills, suggesting that training of stress coping skills is necessary to improve the motivation for treatment of alcoholics. The results of this study are similar to those of Thornton[16], which studied the relationship between stress coping and change motive. These results suggest that alcoholics tend to rely on alcohol in the face of stressful situations, and that they do not efficiently use the targeted coping skills to create, determine, and implement alternatives in stressful situations. The results suggest that it is necessary to

intensively educate and train stress coping strategies. In addition, the self-esteem has a direct effect on the change motives of alcoholic addicts. Previous studies related to the self-esteem of alcoholic addicts reported that the self-esteem and the motivation for change of alcoholics are closely related[27]. The results of this study also showed the same results as previous studies, suggesting that increasing the low self-esteem of alcoholics can be a factor that can enhance motivation for change. Therefore, based on the results of this study, it is necessary to reinforce the program of self-control ability to improve the 'control ability' of self-esteem.

Finally, the results showed that social support has a direct effect on the motivation of change in alcoholics. Prior studies have shown that awareness of the relationship between external environmental factors and motivations for change leads to the negation of problems and low therapeutic motivation, especially in relation to alcohol addicts and their family 'co-dependents'. Social support from relatives has been reported to be an important factor in maintaining behavioral change[28]. Therefore, based on the results of this study, the necessity of including the alcoholics themselves and their families was raised for the treatment and rehabilitation of the alcoholics.

From the above results, it can be seen that the psychosocial factors are factors that influence the motivation of change of alcoholic addicts and the relationship between these factors is directly or indirectly. In other words, rehabilitation of an individual who is alcoholic includes both personal characteristics such as self-esteem and stress coping, which reflect his personality and psychological state, as well as social and environmental characteristics such as social support.

This study has the following limitations. First, this study adopted the way of using cross-sectional data, although the longitudinal research method is ideal for analyzing the structural causality of psychosocial factors affecting the change motive of alcoholics. This study is limited in generalization of research results because it is best to use longitudinal data in identifying causal relationships among variables.

Lastly, this study has a limitation in generalizing the results in that data were collected through convenient sampling for alcoholics living in a limited region. Although the subjects of this study were focused on alcoholics, so it couldn't have randomized sampling, national samples with enough sample sizes is required to generalize the results of the study.

In spite of these limitations, this study was conducted to investigate the path between psychosocial factors affecting the motivation of change, a key concept in the treatment of alcoholism, in hospitalized alcoholics who are in the process of recovering alcoholism. This is meaningful because it attempted to identify the structural relationship between these factors among the alcoholics who are hospitalized.

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