

## **The Relationship of Early Maladaptive Schemas, Attributional Styles and Learned Helplessness among Addicted and Non-Addicted Men**

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### **Abstract**

**Background:** Addiction is considered as one of the major problems in family and community in the world. According to cognitive view, organizing the experiences determines how to behave. Due to their importance in interpretation of special situations, cognitive schemas and attributional styles have a significant role in cognitive theories. The aim of this study was to compare early maladaptive schemas and attributional styles in addicts and non-addicts to recognize their role in addiction.

**Methods:** In this causal-comparative study, 200 addicted and non-addicted men were randomly selected. Young early maladaptive schema and attributional styles questionnaires were used. Data analysis was performed by independent t-test, Pearson correlation and regression.

**Findings:** The study population included 81 addicted and 90 non-addicted men. There were significant differences between early maladaptive schemas and attributional styles in the two groups of addicted and non-addicted men ( $P < 0.001$ ). In addition, addicts had higher levels of learned helplessness. A direct relationship was found between learned helplessness and frequency of addiction treatments ( $r = 0.234$ ,  $P < 0.05$ ).

**Conclusion:** Our study showed that addicts suffer from high levels of early maladaptive schemas. They had a more pessimistic attributional style. Moreover, addicts who developed higher levels of learned helplessness were less successful in addiction treatment and more likely to use drugs again after treatment. These issues show that addiction institutions and therapists have to pay attention to cognitive factors for addiction prevention.

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**Keywords:** Early maladaptive schema, Attributional style, Learned helplessness, Addiction.

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## Introduction

Addiction is considered as one of the major problems in family and community in the world. According to the World Health Organization (WHO) and the United Nations Office on Drug and Crime (UNODC) drug abuse is on the upswing.<sup>1</sup>

In 2005, the number of substance abusers aging 15-64 was estimated by the UNODC to be 200 million, i.e. 5 percent of total world population.

Studies on drug abuse in our country showed that 13 percent of Iranian youth has experienced it at least once. Furthermore, official sources have estimated the number of addicts to be about 2 million persons in 2001. However, some unofficial sources claimed it to be about 6 million.<sup>2</sup>

Social science and psychology researchers believe that studying the causes of people's tendency to drug abuse is one of the requirements to reduce addiction. They assume that addiction is a multifactorial phenomenon divided into three categories including sociocultural, biological, and psychological factors.

Among these, psychological factors are very important. Psychologists believe that the effects of biological and sociocultural factors are affected by psychological trends.

According to cognitive view, organizing the experiences determines how to behave. Organizing the experiences is based on cognitive processes and any disruption in these processes can create behavioral, emotional and communicational problems.<sup>3</sup>

Cognitive theorists developed a new approach to treat a variety of mental health problems, including personality disorders and addictive behaviors, by focusing specifically on the development of dysfunctional schema that emerge during childhood.<sup>4</sup>

Early maladaptive schemas (EMSs) are chronically self-defeating emotional and cognitive patterns that develop early in life. They are the causes of many psychological disorders. Maladaptive schemas and inefficient ways the patient learns to adapt with others often lead to chronic symptoms of anxiety, depression and substance abuse.<sup>5</sup>

Based on the revised model of learned helplessness theory, another factor that increases a person's vulnerability is attributional style which means how individuals explain different

events. It means that when individuals encounter an unpleasant and uncontrollable event, they are interested in recognizing the cause. Abramson states three indexes for this issue namely internal/external, stable/unstable, and specific/global. Therefore, if a person attributes a bad event to a stable, internal, and global cause, it can result in learned helplessness (LH).<sup>6</sup>

Some researchers showed that LH is the core of psychopathology and Logic malfunction. They also suggested it as a predictor of successful treatment for substance abuse. Other researchers have shown that LH has a key role in frequent relapses of psychiatric disorders and resulting frequent hospitalizations.<sup>7</sup>

Considering socio-economic side effects of substance abuse on families and the society, and relative success of drug abuse prevention and treatment approaches in the past decades, and also with the new approaches focusing on the role of individual differences in prevention and treatment of addiction, this study tries to compare EMSs in addicted and non-addicted men and study the relationship between EMSs and LH. It also tries to determine the role of LH in success of addiction treatments.

## Methods

In this causal-comparative study, the EMSs of 200 addicted and non-addicted men and their relationship with LH were studied. EMS and LH questionnaires were used to collect data. Demographic status of the subjects (age, education, employment status, kind of substance used, and frequency of treatment) was determined using a self-developed questionnaire.

**EMS questionnaire:** It has been developed by Young in 1998. The short form of this questionnaire measures 15 schemas in 75 questions. Each question has 6 options (1 = It does not describe me correctly, to 6 = It describes me completely correct). The validity of this questionnaire was obtained 0.96 as in other countries.<sup>8</sup> Cronbach's alpha in Iran was calculated as 0.62-0.90 for all subscales.<sup>9</sup>

**Attributional style questionnaire:** It is based on the revised theory of LH and includes 36 questions that measure the person's attributional style for 6 positive events and 6 negative events. Two scores will be gained from this questionnaire, namely optimistic and

pessimistic scores. According to the definition of LH, people who are less optimistic and consequently more pessimistic are more likely to develop LH. Therefore, the score of LH is obtained by subtracting the pessimistic and optimistic scores. Greater scores correspond to higher levels of LH.

In the study of Peterson et al.<sup>10</sup> on attributional style questionnaire, the Cronbach's alpha was calculated to be 0.96 for personalization dimension, 0.89 for stability dimension, and 0.90 for globosity dimension. In 2003, Khaje Amiri Khaledy determined the reliability coefficient of attributional style questionnaire as 0.78.<sup>11</sup>

Drug addicts were chosen from 4 randomly selected addiction treatment centers. Non-

addicted men were selected by access random sampling from offices, factories and various neighbors. After completing the questionnaires by the two groups (81 addicted and 90 non-addicted men), independent t-test, Pearson correlation, and regression were done by SPSS<sub>17</sub> statistical software.

**Results**

We found significant differences between addicts and non-addicts. Among different schemas, the first domain (disconnection) obtained the highest scores (Figure 1, Table 1).

In addition, the addicts and non-addicts were significantly different in scores of optimism and pessimism and the rate of LH ( $P < 0.05$ ) (Figure 2 and 3, Table 2).

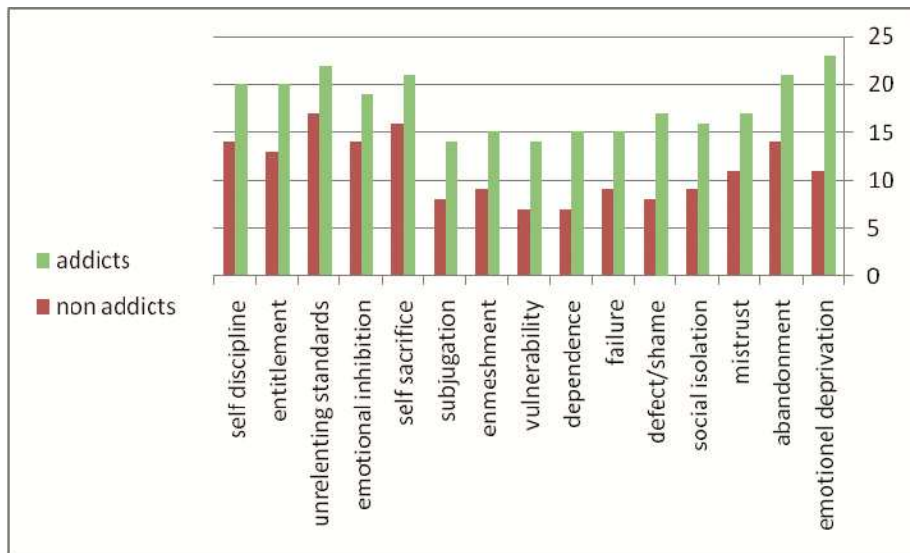


Figure 1. Mean difference of maladaptive schemas in addicts and non-addicts

Table 1. Mean differences of maladaptive schemas in addicts and non-addicts

	t	P value	d.f
Emotional deprivation	10.19	0.001	165
Abandonment	5.79	0.001	159
Mistrust/abuse	8.17	0.001	161
Social isolation	8.70	0.001	162
Defect/shame	8.91	0.001	159
Failure	6.12	0.001	160
Dependence/incompetence	6.18	0.001	151
Vulnerability to harm	8.36	0.001	166
Enmeshment	6.81	0.001	163
Subjugation	7.13	0.001	162
Self sacrifice	2.98	0.003	166
Emotional deprivation	4.87	0.001	163
Unrelenting standards	3.50	0.001	164
Entitlement	5.32	0.001	167
Self discipline	8.25	0.001	164

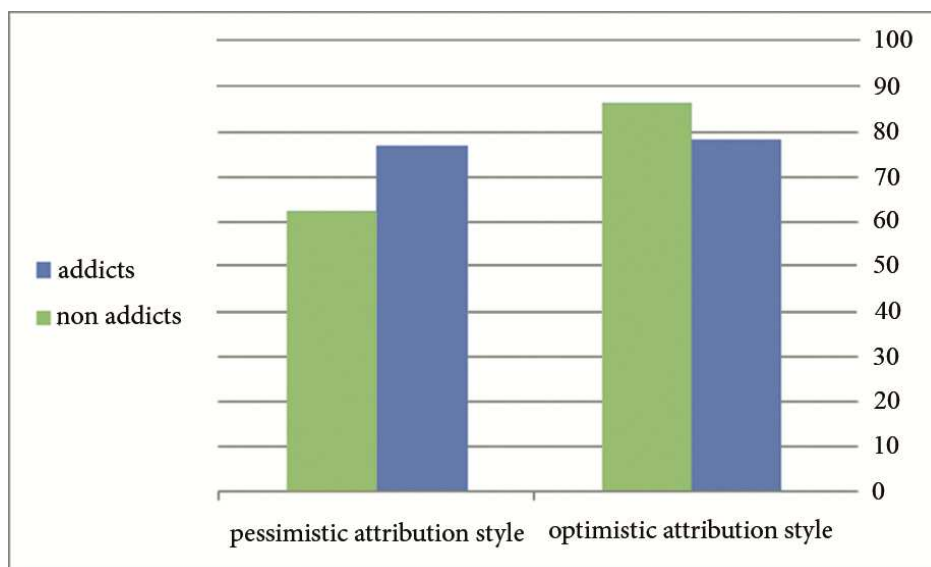


Figure 2. Mean difference of attribution style in addicts and non-addicts

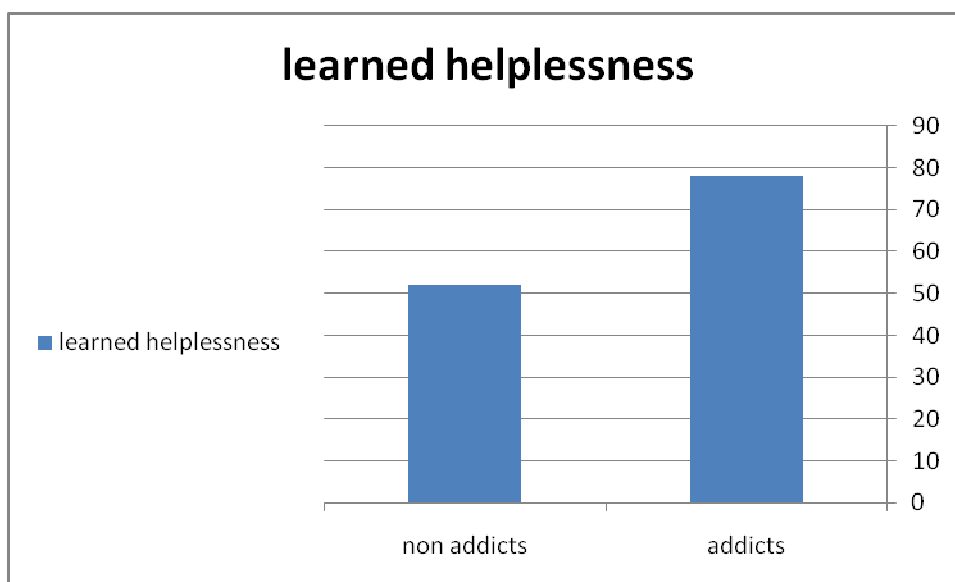


Figure 3. Mean difference of learned helplessness in addicts and non-addicts

Table 2. Mean differences of attributional style in addicts and non-addicts

	Pessimistic attributional style	Optimistic attributional style	Learned helplessness
t	3.97*	-3.97*	8.55**
P value	0.001	0.001	0.001
d.f	169	150	169

\* t is significant at the 0.05 level.

\*\* t is significant at the 0.01 level.

Table 3. Pearson correlation between learned helplessness and frequency of addiction treatments

	Learned helplessness
Frequency of addiction treatment	0.334*
P value	0.36
Total	81

\* Correlation is significant at the 0.05 level.

A direct relationship was found between LH and frequency of treatment times. Therefore, individuals who suffered more from LH were more unsuccessful in addiction treatment (Table 3).

Pearson correlation showed a positive relationship between pessimistic attribution and defect/shame, dependence/incompetence and emotional inhibition schemas in addicts, i.e. addicts that were more pessimistic had a higher level of EMS.

In addition, Pearson correlation in addicts

showed a correlation between LH and entitlement, emotional inhibition, dependence/incompetence, failure, defect/shame, social isolation, abandonment and emotional deprivation schemas ( $P < 0.05$ ) (Tables 4 and 5).

Among the schemas related to LH, 2 were predictors of LH, namely failure and entitlement, with a regression equation as follows:  $LH = 33.87 + 1.26$  (failure)  $+ 1.16$  (entitlement) failure: ( $B = 1.26$ ;  $f = 11.688$ ;  $P = 0.001$ ) entitlement: ( $B = 1.16$ ;  $f = 11.66$ ;  $P = 0.012$ ) (Table 6).

**Table 4.** Pearson correlation between early maladaptive schemas and pessimistic attribution style

	Defect/shame	Dependence/incompetence	Self sacrifice	Emotional inhibition
Pessimistic attributional style	0.258*	0.348**	-0.270*	0.303*
P value	0.02	0.001	-0.015	0.006
Total	81	81	81	81

\* Correlation is significant at the 0.05 level.

\*\* Correlation is significant at the 0.01 level.

**Table 5.** Pearson correlation between early maladaptive schemas and learned helplessness in addicts

	Learned helplessness	P value	Total
Emotional deprivation	0.242*	0.030	81
Abandonment	0.319**	0.004	81
Social isolation	0.310**	0.004	81
Defect/shame	0.328**	0.003	81
Failure	0.406**	0.001	81
Dependence/incompetence	0.394**	0.001	81
Emotional inhibition	0.351*	0.001	81
Entitlement	0.311**	0.005	81

\* Correlation is significant at the 0.05 level.

\*\* Correlation is significant at the 0.01 level.

**Table 6.** Regression coefficients

Model	B	Standard error	$\beta$	t	P value
Constant coefficient	33.87	10.45	-	3.24	0.002
Failure	1.26	0.34	0.37	3.68	0.001
Entitlement	1.16	0.45	0.26	2.57	0.012

## Discussion

According to our findings, addicted and non-addicted men are significantly different in all 15 EMSs, i.e. addicts suffer from higher levels of EMSs. Kirsch<sup>5</sup> made similar conclusions. Lobbetael et al. studied the relationship of 14 EMSs and personality disorder and they found significant differences between healthy individuals and personality disordered individuals.<sup>12</sup> Ball and Young, as well as Cullum, suggested that schemas have an important role in successful treatment of addiction.<sup>13,14</sup> Young et al. also found many schemas related to substance abuse.<sup>15</sup>

Among schemas domains, the first domain (rejection/disconnection) obtained the highest scores. Bosmans et al.<sup>16</sup> indicated that psychopathology is perfectly related to this domain. Likewise, Brummett found rejection/disconnection domain linked to more problems and also positively related with psychopathology indicators such as substance abuse. However, it was reported to be negatively related to mental health.<sup>17</sup> Aimee suggested this domain to be more severe in substance abusers.<sup>4</sup>

These findings are consistent with Iranian researchers such as Haghighat manesh and Lotfi.<sup>18,19</sup> Haghighat manesh indicated that compared to normal people, sex offenders had higher EMS scores.<sup>18</sup> Lotfi concluded that personality disordered and healthy individuals were significantly different in all EMSs except abandonment, hyper criticalness, and self sacrifice schemas.<sup>19</sup>

Comparing means of attributional styles of addicts and non-addicts showed significant differences between optimistic and pessimistic attributional styles, i.e. addicts were more pessimistic and developed LH more. Although these findings are consistent with studies conducted by Haj Hosseini, and also Garcia et al.,<sup>20,21</sup> Fletcher did not find a significant

difference between addicts and non-addicts in terms of attributional styles.<sup>6</sup> and his findings indicate that LH is related to relapse to addiction after treatment. He stated that pessimistic addicts were more likely to return to substance abuse.<sup>6</sup> We also found a direct relationship between LH and successful addiction treatment. Therefore, addicts who suffered more from LH were less successful in treatment and more likely to relapse to substance abuse.

Pearson correlation between EMS and pessimistic attributional style in addicts revealed positive relationships between pessimism and defect/shame, dependence/incompetence, and emotional inhibition schemas. Therefore, more pessimistic addicts had more severe schemas. In addition, Pearson correlation between LH and EMS in addicts indicated direct relationships between LH and entitlement, emotional inhibition, dependence/incompetence, failure, defect/shame, social isolation, abandonment, and emotional deprivation. These findings are consistent with Aimee's research which found dependence/incompetence schema related to LH.<sup>4</sup> Similarly, Hoffart and Sexton, and Tarquinio also suggested that since emotional deprivation, mistrust/abuse, social isolation vulnerability to harm and compliance were related to pessimism, schema therapy would lead to increased optimistic attribution.<sup>22,23</sup> Likewise, Tilden and Dattilio, and Hoffart et al. found a positive relationship between pessimistic attributional style and EMS in depressed individuals and many couples with marital problems.<sup>24,25</sup>

At the end, according to what was mentioned in this study, addicts have more cognitive problems in comparison with non-addicts. Therefore, it is necessary to pay more attention to cognitive factors in addiction treatment to increase the success rate of the treatment.

**Conflict of Interest:** The Authors have no conflict of interest.

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## بررسی ارتباط میان طرح‌واره‌های ناسازگار اولیه، سبک‌های اسنادی و درماندگی آموخته شده در مردان معتاد و غیر معتاد شهر کرمان

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### چکیده

**مقدمه:** اعتیاد در جهان یکی از معضلات بزرگ در راستای فروپاشی نظام خانواده و اجتماع به شمار می‌رود. بر اساس دیدگاه شناختی، چگونگی سازمان دادن به تجربیات، تعیین کننده نحوه رفتار و عواطف فرد است. مفهوم طرح‌واره شناختی و سبک‌های اسنادی به واسطه اهمیتی که در تعبیر و تفسیر موقعیت‌های خاص دارند در نظریه‌های شناختی از جایگاه ویژه‌ای برخوردارند. بنابراین هدف از این پژوهش، مقایسه طرح‌واره‌های ناسازگار و سبک‌های اسنادی معتادان و غیر معتادان و بررسی نقش آن در اعتیاد بود.

**روش‌ها:** در این پژوهش توصیفی-تحلیلی، ۲۰۰ نفر مرد معتاد و غیر معتاد به صورت تصادفی انتخاب گردیدند. از پرسش‌نامه‌های طرح‌واره‌های ناسازگار اولیه Young و سبک‌های اسنادی (بر مبنای نظریه تجدید نظر شده درماندگی آموخته شده) استفاده شد. جهت تحلیل داده‌ها از آزمون‌های آماری t مستقل، همبستگی Pearson و رگرسیون استفاده گردید.

**یافته‌ها:** داده‌های به دست آمده از ۸۱ نفر معتاد و ۹۰ نفر غیر معتاد حاکی از این است که این دو گروه از لحاظ هر ۱۵ طرح‌واره ناسازگار اولیه و سبک‌های اسنادی با یکدیگر تفاوت معنی‌داری داشتند ( $P < 0/001$ ). معتادان به میزان بیشتری دچار درماندگی آموخته شده هستند و بین درماندگی آموخته شده و دفعات ترک رابطه مستقیمی به دست آمد ( $r = 0/234, P < 0/05$ ).

**نتیجه‌گیری:** افراد معتاد از شدت بیشتر طرح‌واره‌های ناسازگار اولیه رنج می‌برند، سبک اسناد بدبینانه‌تری دارند و به میزان بیشتری دچار درماندگی آموخته شده می‌باشند. معتادانی که دچار درماندگی آموخته شده بودند، در ترک اعتیاد ناموفق‌تر بوده و به میزان بیشتری پس از ترک، به سمت مصرف دوباره مواد، بازگشت داشته‌اند. این یافته‌ها ضرورت توجه مراکز و درمانگران حوزه اعتیاد را به عوامل شناختی در پیش‌گیری و درمان اعتیاد خاطر نشان می‌سازد.

**واژگان کلیدی:** طرح‌واره‌های ناسازگار اولیه Young، سبک‌های اسنادی، درماندگی آموخته شده، معتاد، غیر معتاد.

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