

# The Relationship Between Childhood Maltreatment, Attachment Styles, and Maladaptive Internet Addiction Schemes in Students of Islamic Azad University of Hamedan

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## ABSTRACT

This research aimed to study the relationship between childhood maltreatment, attachment styles, and maladaptive internet addiction schemes in the students of Islamic Azad University, Hamedan branch. This is an applied and descriptive-correlational research in terms of purpose and methodology, and quantitative in terms of data collection. The statistical population of research was all student of Islamic Azad University, Hamedan branch, in the 2016-2017 academic year who were 12933. The sample size of research was 300 students of the Islamic Azad University of Hamedan who were selected randomly from among different faculties. Bernstein and Fink' Short-form Childhood Trauma Questionnaire, Hazan and Shaver's Attachment Styles Questionnaire (1990), Young's Maladaptive Schema Questionnaire (2005) and Young's Internet Addiction Questionnaire (1998) were used in this study to measure the childhood maltreatment. Results indicated that there was a positive relationship between all types of childhood maltreatment (physical, sexual, verbal and emotional) with internet addiction disorder of students. There was also a relationship between all types of childhood maltreatment with students' attachment styles. There was a positive relationship between all types of childhood maltreatment with maladaptive schemes of students. There was a relationship between attachment styles with students' internet addiction disorder. There was also a positive relationship between attachment styles with maladaptive schemes of students.

**Keywords:** Childhood Maltreatment, Attachment Styles, Maladaptive Schemes, Internet Addiction;

## Introduction

Maltreatment with children creates challenges; these challenges can push the maltreatment victims toward abnormal and deviated ways during their development which finally lead to involvement in high-risk behaviors in life. For example, adolescents and adults with childhood maltreatment history report a higher rate of involvement in high-risk sexual behavior, consumption of cannabis and alcohol (Shin et al, 2013). Chronic childhood stress may disturb multiple important tasks (for example, communication and self-regulation capabilities) that their development continues during adolescence and early adulthood. However, researches have shown a special connection between all types of childhood maltreatment with attachment styles (Engles et al, 2011).

Bowlby attachment theory (1973) states that attachment style acts as a "behavior control system" i.e. the control system turns on or becomes active with some contextual features. This activation or turning on the system leads to special actions in a path to achieve a goal. When an individual achieves the goal, the control and self-management system deactivate (Tenannt, 1988). Behavior control systems organize and direct the behavior. This organizing and directing is vital for human conformity and adaptation. In addition, attachment plays an important role in the social and emotional adaptation of adolescents. This diverts the attachment behaviors of adolescents toward people other than their parents, especially peers and gradually, adolescents show a kind of attachment to their peers and society (Engles et al, 2011).

Hanaee (2009) showed in his research that there is a significant relationship between insecure attachment style and maladaptive schemes and this type of attachment can provide a ground for maladaptive schemes in children. Young, Kolsko & Weishaar (2003) called those schemes which lead to the formation of psychological problems as maladaptive schemes. These schemes may resist against change in some subjective processes and slow down the change process of behavioral models (Engles et al, 2011).

Generally, maladaptive schemes are those concepts that influence the attitude of people about themselves and their surrounding; in fact, these schemes have some roots in the experiences and interactions of first years of an individual life with parents, peers and surrounding world (Young, 2005, Translated by Sahebi & Hamidpour, 2016). Research showed that primary maladaptive schemes cause bias in cognitive processes and influence the vulnerability of an individual to mental disturbances, like addiction. Today, one of the emergent addictions is internet addiction which is defined as the incorrect use of computer and internet information. Internet access is developing and every day, more people use the internet. The internet is present everywhere: in the home, in school, in offices, and shopping centers, and

adolescents and young people use it more than other people (Young 2005, translated by Sahebi & Hamidpour, 2016).

Internet addiction or internet behavioral attachment, aside from considering it as a mental damage or disease or social problem, is a chronic, pervasive and recurring phenomenon which is accompanied with serious physical, material, family, social and mental damages. The most common expression for it is the "internet addiction" which creates a kind of behavioral attachment to internet and has problems like increasing the cost of internet and its related issues, unpleasant emotional feeling (like anxiety, depression and etc.) when an individual is not connected to internet, becoming accustomed to the effects of using internet, and denying problematic behaviors. From this view, this disorder is seen as a tension disorder to impulse control like pathological gambling. Those who have these problems suffer from physiological, social and job issues (Gonzalez, 2008).

Regarding the importance of internet addiction, its hidden and unknown damages and increasing occurrence in the society, especially among adolescents and young people, it is necessary to consider the importance of educational performance and its relationship with physiological issues; the inattention of parents to children and maltreatment with them can create maladaptive schemes, addiction and social disorders like internet addiction.

Now, the main issue that caused the researcher to study the internet addiction is that the speed of internet in the life of people, especially those students who need to use the cyberspace due to the nature of their jobs; neglecting this issue can have negative effects such as internet addiction and severe attachment of an individual to internet use, despite its numerous advantages

The internet addiction has harmful effects on the other aspects of individual life, like social issues, family and education. Despite the importance of this issue in our country, internet addiction is not considered from the psychological view, especially problems related to the early childhood like communication and attachment to family and other people, and maltreatment. In other words, such an addiction has been studied from the view of childhood maltreatment, attachment styles, and maladaptive schemes in the country which shows a gap in this field. Therefore, regarding the above explanations, this question is raised by the researcher: is there a significant relationship between childhood maltreatment, attachment styles and maladaptive schemas with internet addiction in the students of Islamic Azad University of Hamedan?

## **Definition of research variables**

### **1- Internet Addiction**

Internet addiction is defined as the excessive use of internet or unreasonable and pathological use of the internet. Internet addiction includes addiction to chat rooms,

pornography, and online gambling that can destroy the healthy relationships, emotions, and finally, the spirit of people (Nastizae, 2008).

The pervasiveness of media at the beginning of 21<sup>st</sup> century and the role of the internet in forming culture, identity, beliefs, and social values has increased the importance of the research. In our society, the tendency to use the internet has increased such that more families have a personal computer, and family members spend more time for using the internet. The internet has special attraction among all social groups including men and women, old and young, literate and illiterate. The expansion of the internet, like any other innovation, has led to the transformations in different aspects of life and its use has become inevitable, such that the life of people who are accustomed to it, is difficult without it (Omidvar & Saremi, 2017).

## **2- Childhood Maltreatment**

Childhood maltreatment includes all physical, sexual, and emotional abuse and child neglect (under 18 years old) by an adult (higher than 18 years old) (Naghazi, Fatehizadeh, & Abedi, 2006).

Children are among the most vulnerable groups of society and they are always threatened by the abuse of different people in the family or society (Pournaji, 2015). Children abuse is represented in various forms. Unfortunately, sometimes the family is a place for the expression of violence, pain, and suffering for children (Aqabeigloee, 2018). Child abuse is a behavior in which the child is exposed to all types of physical, and sexual abuses, inattention and emotional misbehaviors (Khooshabi, 2003). Every neglect or action that threatens the physical and mental health of a child and disturbs it, is child abuse (Khazrori Aflakfar, 2002). Nowadays, child abuse is a priority in social, health and treatment concerns of different countries. Child abuse, including physical, sexual, inattention and neglect, is heinous in different societies and it is a crime in most of the countries with criminal punishments (Raheb et al, 2009).

## **3- Attachment Styles**

Attachment is a biological foundation through which the behavior of human is regulated by a series of behavioral control systems (Bowlby, 1973). Attachment style is a perceived model of reaction to the close relationships of an individual which reflects the previous close experiences and is relatively stable by passing the time (Feeny & Noller, 1996).

Attachment theory, which is invented by John Bowlby in 1950 (Bowlby, 1969, 1980, 1973; Holmes 1991), is the major reference of theory and experiment in the evolutionary psychology after two generations. Many social psychology advancements are influenced by this theory. The study of Brown and Harris (1978) and Birtchel (1993) about the depression interactive intermediates and the studies of Henderson et al (1981) about social networks in neurosis belong to this group (Birtchel, 1993).

#### 4- Maladaptive Schemes

Primary maladaptive schemes are self-damaging emotional and cognitive models in an individual which form in the mind from beginning the development and repeat in the life (Young, Klosko, & Weishaar, 2008, translated by Hamidpour & Andarz, 2017). These schemes, in the deepest recognition level, generally act out of the awareness and make the individual psychologically vulnerable to disturbances like depression, anxiety, inefficient communication, addition and psychosomatic disorders (Young, 1999).

The information we receive from the world outside is placed in a complex network of previous teachings about the interpretation and meaning. Some theories have been presented from the old times about the effect of previous perceptions on the new perceptions. One of the most strong mechanisms and concepts which is used in this case is schema which introduced into the cognitive sciences in the research and clinical levels from the time of Bartlett, Piaget, Sepsbeck, and Nicer.

Schemes can be considered as the structures for retrieving general concepts stored in the memory or an organized set of information, beliefs, and assumptions. The content of schema consists of individual life experiences, organized and used in the perception and evaluation of new information (Ahi, 2006).

#### Research Methodology

This research is applied in terms of purpose, descriptive-correlational in terms of methodology, and quantitative in terms of data collection method. The statistical population of research includes all students of Islamic Azad University, Hamedan branch, in the academic year of 2016-2017 who were 12933 students. Among them, 5955 were human sciences' students, 3321 polytechnic students, 2236 art and architecture students, and 1394 basic sciences students. The sample size was determined based on the number of predicted variables as  $N > 50 + 8m$  (number of predictor variables =  $m$ ). Therefore, the number of predictor variables in the research by considering 4 subscales of childhood maltreatment, 3 subscales of attachment, and 6 subclasses of primary maladaptive schemes are 13. If this number replace in the above formula, the sample size will be 154 but due to the reduction of subjects and this fact that in structural equation modeling, the higher number of samples improves the fitness of model, therefore, the sample size in this research is 300 students of Islamic Azad University, Hamedan branch who were selected by cluster random sampling from different faculties. 139 students were selected from human sciences, 77 students from polytechnic faculty, 52 art and architecture students and 32 basic sciences students.

Data collection tool was questionnaire including:

**A) Short form Young Schema Questionnaire (SF-YS-Q):**

Primary maladaptive schemes in this research were measured by Young's maladaptive schemes questionnaire (2005). This questionnaire has 30 questions and its scoring method is based on five-point Likert style (false=1, relatively false=2, relatively true=3, approximately true=4, true=5). Young (2005) designed this questionnaire from main questionnaire form with 205 questions. Young' schema questionnaire (SQ-SF) was constructed to evaluate 6 primary maladaptive schemes. These schemes were: emotional deprivation (questions 1 to 5), abandonment/instability (questions 6 to 10), mistrust/abuse (questions 11 to 15), social isolation (questions 16 to 20), shame/defectiveness (questions 21 to 25), and failure (questions 26 to 30). The first comprehensive research about psychometric characteristics of Young schema questionnaire was carried out by Smith, Joiner, Young, and Telch (1995). The results of this study showed that for the primary maladaptive schema, the Cronbach alpha is 0.83 (untransformed-self schema up to 0.96, shame/defectiveness and retest coefficient in non-clinical population 0.5 to 0.82). Primary subscales, reliability and internal consistency were high. Normalization of this questionnaire was determined in Iran by Ahi (2006) by implementing it on 387 students of Tehran University. The internal consistency of this questionnaire, using Cronbach alpha, was 0.97 in females and 0.98 in males. The reliability of primary maladaptive schemes questionnaire in this research was 0.92, using Cronbach alpha method which shows that the questionnaire has acceptable reliability.

**B) Childhood Trauma Questionnaire-Short form (CTQ-SF)**

This questionnaire, which was presented by Brenstien and Fink (1998), measures four types of childhood trauma by using a retrospective questionnaire with 28 questions. CTQ-SF measures four fields: physical abuse (questions 1-6-9-11-12-15-17), sexual abuse (question number 20-21-23-24-27), verbal abuse (question 3-14) and emotional abuse (questions 2-4-5-7-8-10-13-16-18-19-22-25-26-28). 28 questions were scored based on a five-point Likert scale from "never true (1), rarely true (2), sometimes true (3), often true (4) and most often true (5)" while question scoring is reverse (2-5-13-16-19-22-26). According to CTQ-SF guideline (Brenstien and Fink, 1998), verbal abuse refers to the verbal attack to the feeling of being valuable, or welfare of children or scorning, or direct behavioral threat of child by an adult. Physical abuse refers to the physical attack to a child by an adult which exposes the child to damage or risk. Sexual abuse refers to the sexual contact between the child and an adult. Threat and coercion are obvious in this case but they are not major characteristics of these experiences. Emotional abuse refers to the failure of care providers in meeting all basic psychological and emotional needs of a child, including love, encouragement, belonging and support. The thresholds for exposing to different damages have been provided in CTQ-SF guide (Brenstien and

Fink, 1998). Several studies that carried out factor analysis have used four-factor model for 25 main questions of CTQ-SF (Brenstien and Fink, 1998). These results are reproduced in the Norwegian version of this scale (Doorki et al, 2012). In Swedish version, only physical neglect subscale was reproduced.

### **C) Internet addiction scale**

Internet addiction scale has been designed by Young (1999) which has 20 six-item questions. The scoring of this scale is based on the six-point Likert scale including never=0, rarely=1, sometimes=2, most often=3, often=4, and always=5. Cronbach alpha coefficient in Turkish version was 0.88 and 5 scales explained 63.8% of internet addiction scale variance.

### **D) Attachment styles scale**

Attachment style in this research was measured by Hazan and Shaver questionnaire (1990). This is a self-assessment questionnaire which is presented based on the five-point Likert scale and respondents specify their position from among three presented descriptions according to their conformity to each description which indicates an attachment style. This questionnaire has three styles: secure attachment (questions 1-3-7-12-14-18-19), insecure avoidance attachment (questions 2-4-8-13-15-17-20) and ambivalent insecure attachment (questions 5-6-9-10-11-16-21). The scoring of this questionnaire is based on five-point Likert scale (very low=1, low=2, somehow=3, high=4, very high=5). Validity of questionnaire in the Hazan and Shaver (1990) research for ambivalent insecure attachment, insecure avoidance attachment, and secure attachment styles was 0.72, 0.56, and 0.37, respectively. Cronbach alpha was 0.79 which shows relatively high validity.

## **Research Findings**

### **Normality Of Variables**

Before testing the research hypothesis, it is necessary to evaluate variable normality by the Kolmogorov-Smirnov test. Therefore, table 1 studies the normality of variables.

*Table 1: normality of variables*

Variables	Z-score	Significance
Internet addiction	1.009	0.217
Childhood maltreatment	1.14	0.11
Physical	1.058	0.168
Sexual	1.193	0.099
Verbal	1.006	0.22
Emotional	0.997	0.229
Maladaptive schema	0.74	0.486
Emotional deprivation	0.787	0.469
Abandonment	0.519	0.632
Mistrust	1.026	0.19
Social isolation	0.681	0.599
Defectiveness	1.036	0.176
Failure	0.682	0.598
Attachment	1.032	0.18
Secure	1.067	0.158
Avoidance insecure	0.814	0.351
Ambivalent insecure	1.132	0.135

Regarding the above table, we can conclude that the significance level of all variables is higher than 0.05. Therefore, the abovementioned data are normal. Therefore, variable normality explains the use of parametric tests for deducting research hypotheses.

### First Hypothesis

There is a positive relationship between all types of maltreatment (physical, sexual, verbal and emotional) in childhood with internet addiction of students.

Pearson correlation was used to test the first hypothesis. Table 2 shows all types of childhood maltreatment (physical, sexual, verbal, and emotional) with the internet addiction disorder of students.

*Table 3: testing the first hypothesis*

Independent variable \ dependent variable	Internet addiction	
Childhood maltreatment	Correlation coefficient	0.792
	Significance level	0.001
Physical	Correlation coefficient	0.816
	Significance level	0.001
Sexual	Correlation coefficient	0.759
	Significance level	0.001
Verbal	Correlation coefficient	0.69
	Significance level	0.001
Emotional	Correlation coefficient	0.79
	Significance level	0.001

Table 2 shows that significance level is lower than 0.01; therefore, there is a significant relationship between dependent variable and independent variables in 99% confidence level. Positive correlation coefficient means that the increase in childhood maltreatment and its dimensions, including physical, sexual, verbal and emotional, will increase internet addiction. Among childhood maltreatment dimensions, physical maltreatment has the highest correlation with internet addiction, and the lowest correlation was in verbal maltreatment. Therefore, we can say that there is a positive relationship between all types of childhood maltreatment (physical, sexual, verbal, and emotional) with internet addiction of students. According to correlation coefficient significance level, the first research hypothesis confirmed and null hypothesis rejected.

### Second hypothesis

There is a relationship between all types of childhood maltreatment (physical, sexual, verbal and emotional) with attachment styles of students.

Pearson correlation was used to test the second research hypothesis. Table 3 shows the correlation coefficient of relationship between all types of childhood maltreatment (physical, sexual, verbal and emotional) with attachment styles.

Table 4: testing the second hypothesis

Independent variable \ dependent variable		Attachment	Secure	Avoidance	Ambivalent insecure
		Childhood maltreatment	Correlation coefficient	0.865	-0.383
	Significance level	0.001	0.001	0.001	0.001
Physical	Correlation coefficient	0.885	-0.453	0.87	0.838
	Significance level	0.001	0.001	0.001	0.001
Sexual	Correlation coefficient	0.838	-0.419	0.813	0.765
	Significance level	0.001	0.001	0.001	0.001
Verbal	Correlation coefficient	0.803	-0.372	0.745	0.731
	Significance level	0.001	0.001	0.001	0.001
Emotional	Correlation coefficient	0.856	-0.525	0.873	0.853
	Significance level	0.001	0.001	0.001	0.001

Table 2 shows that the significance level is lower than 0.01; therefore, there is a significant relationship between dependent variable and independent variables in 99% confidence level. Negative correlation coefficient also means that by increasing childhood maltreatment, secure attachment reduces. While reduction of childhood maltreatment leads to the reduction of avoidance and ambivalent insecure attachment. On the other hand, physical and verbal abuses have the highest and lowest correlation with attachment, respectively. Therefore, we can say that there is a relationship between all types of childhood maltreatment (physical, sexual, verbal and emotional) with attachment styles of students. Therefore, the second hypothesis confirmed and null hypothesis rejected.

### Third hypothesis

There is a positive relationship between all types of childhood maltreatment (physical, sexual, verbal and emotional) with maladaptive schemes of students.

Pearson correlation was used to test the third hypothesis. Table 4 shows the correlation coefficient between all types of childhood maltreatment (physical, sexual, verbal and emotional) with maladaptive schemes.

*Table5: testing third hypothesis*

Dependent variable		Maladaptive schema	Emotional deprivation	Abandonment	Mistrust	Social isolation	Defectiveness	Failure
Independent variable								
Childhood maltreatment	Correlation coefficient	0.401	0.375	0.325	0.444	0.415	0.366	0.329
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Physical	Correlation coefficient	0.418	0.378	0.369	0.444	0.407	0.392	0.364
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Sexual	Correlation coefficient	0.385	0.369	0.322	0.425	0.417	0.334	0.308
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Verbal	Correlation coefficient	0.283	0.277	0.213	0.305	0.284	0.271	0.266
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Emotional	Correlation coefficient	0.509	0.465	0.464	0.531	0.495	0.449	0.445
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Table 4 shows that the significance level is lower than 0.01; therefore, there is a significant relationship between dependent variable and independent variables in 99% confidence level. Positive correlation coefficient means that by increasing childhood maltreatment, maladaptive schema increases. Emotional maltreatment and verbal maltreatment have the highest and lowest relationship with maladaptive schema, respectively. Therefore, we can say there is a relationship between all types of childhood maltreatment (physical, sexual, verbal and emotional) with maladaptive schemes of students. Therefore, third hypothesis confirmed and null hypothesis rejected.

#### **Fourth hypothesis**

There is a relationship between attachment styles with internet addiction of students. Pearson correlation was used to test the fourth hypothesis. Table 5 shows the correlation coefficient between attachment styles with internet addiction disorder.

*Table 6: testing the fourth hypothesis*

Independent variable \ Dependent variable		Internet addiction
Attachment	Correlation coefficient	0.78
	Significance level	0.001
Secure	Correlation coefficient	-0.384
	Significance level	0.001
Avoidance insecure	Correlation coefficient	0.765
	Significance level	0.001
Ambivalent insecure	Correlation coefficient	0.757
	Significance level	0.001

Table 5 shows that significance level is lower than 0.01; therefore, there is a significant relationship between dependent variable and independent variables in 99% confidence level. Negative correlation coefficient means that by increasing secure attachment style, internet addiction disorder reduce. Internet addiction has also the highest and lowest correlations with avoidance insecure attachment and secure attachment, respectively. Therefore, we can say that there is a relationship between attachment styles with internet addiction of students. Therefore; the fourth hypothesis confirmed and null hypothesis rejected.

#### **Fifth hypothesis**

There is a positive relationship between maladaptive schemes with internet addiction syndrome.

Pearson correlation was used to test the fifth hypothesis. Table 6 shows the correlation coefficients between maladaptive schemes with internet addiction disorder.

*Table 7: testing the fifth hypothesis*

Independent variable \ Dependent variable	Internet addiction	
Maladaptive schema	Correlation coefficient	0.432
	Significance level	0.001
Emotional deprivation	Correlation coefficient	0.356
	Significance level	0.001
Abandonment	Correlation coefficient	0.403
	Significance level	0.001
Mistrust	Correlation coefficient	0.001
	Significance level	0.383
Social isolation	Correlation coefficient	0.412
	Significance level	0.001
Defectiveness	Correlation coefficient	0.446
	Significance level	0.001
Failure	Correlation coefficient	0.404
	Significance level	0.001

Table 6 shows that significance level is lower than 0.01; therefore, there is a significant relationship between dependent variable and independent variables in 99% confidence level. Positive correlation coefficient means that by increasing maladaptive schemes, internet addiction disorder increases. Internet addiction has also the highest correlation with defectiveness and the lowest correlation with emotional deprivation. Therefore, we can say that there is a relationship between maladaptive schemes with internet addiction disorder of students. Therefore, the fifth hypothesis confirmed and null hypothesis rejected.

7-4 Sixth hypothesis

There is a relationship between attachment styles with maladaptive schemes of students.

Pearson correlation coefficient was used to test the sixth hypothesis. Table 7 shows the correlation coefficient between attachment styles with maladaptive schemes of students.

*Table 8: testing sixth hypothesis*

Dependent variable Independent variable	Maladaptive schema	Emotional deprivation	Abandonment	Mistrust	Social isolation	Defectiveness	Failure
Attachment	Correlation coefficient	0.39	0.384	0.321	0.395	0.38	0.355
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001
Secure	Correlation coefficient	-0.272	-0.246	-0.354	-0.264	-0.228	-0.284
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001
Avoidance insecure	Correlation coefficient	0.429	0.407	0.389	0.44	0.399	0.392
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001
Ambivalent insecure	Correlation coefficient	0.432	0.412	0.403	0.396	0.409	0.418
	Significance level	0.001	0.001	0.001	0.001	0.001	0.001

Table 7 shows that the significance level is lower than 0.01; therefore, there is a significant relationship between dependent variable and independent variables in 99% confidence level. Negative correlation coefficient means that by increasing the secure attachment style, the maladaptive schemes reduces. The maladaptive schema has the highest and lowest correlations with ambivalent insecure attachment style and secure attachment style, respectively. Therefore, we can say that there is a correlation between attachment styles with maladaptive schemes of students. Therefore, the sixth hypothesis confirmed and null hypothesis rejected.

### Other findings

Structural equations analysis in AMOS software was used to study the operational model of research. Table 8 shows the estimation of relationships between variable.

*Table 9: estimating model in research operational model*

Relationship	Estimation	Standard deviation	Critical ratio	Factor load	Significance level
Childhood maltreatment → internet addiction	0.506	0.031	9.995	0.554	0.001
Childhood maltreatment → attachment	0.619	0.029	10.011	0.635	0.001
Childhood maltreatment → maladaptive schema	0.329	0.064	6.091	0.339	0.001
attachment → internet addiction	0.498	0.033	9.886	0.541	0.001
Maladaptive schema → internet addiction	0.331	0.053	6.321	0.347	0.001
Attachment → maladaptive schema	0.342	0.049	6.687	0.351	0.001

From table 8, we can conclude that critical ratio (CR) is not in 2.58 and -2.58 range for all relationships. This shows that the relationships are significant. The significance level is lower than 0.01 which indicates that the relationships are significant in 95% confidence level. Factor analysis in the standard state is same as beta coefficient which indicates the effects of variables on each other such that childhood maltreatment influences the internet addiction up to 55%. The effect of childhood maltreatment on attachment is 64%. Childhood maltreatment has 34% effect on the maladaptive schema. The effect of attachment on internet addiction is 54%. The effect of a maladaptive schema on internet addiction is 35%. Finally, the effect of attachment on maladaptive schema is 35%.

We can also say that childhood maltreatment has the direct effect on internet addiction up to 55%, while childhood maltreatment has the indirect effect on internet addiction with intermediation of maladaptive schema up to  $34\% \times 35\% = 12\%$ . Childhood maltreatment has also the indirect effect on internet addiction with intermediation of attachment up to  $63\% \times 54\% = 34\%$ . Therefore, we can conclude that among maladaptive schema and attachment variables, attachment plays a higher role as the mediator variable between childhood maltreatment and internet addiction. On the other hand, among predictor variables, childhood maltreatment has the highest effect on internet addiction followed by attachment and maladaptive schema. Table 9 shows the model fitness by using model fitness indexes which indicate the highest similarity of results with the results of the population.

*Table 10: model fitness indexes in the main research hypothesis*

Index	Value	Acceptable value	Result
$\chi^2/df$	2.435	<3	Accepted
RMSEA	0.061	<0.08	Accepted
NFI (Normed fit index)	0.996	>0.9	Accepted
TLI (Tucker-Lewis Index)	0.96	>0.9	Accepted
CFI (comparative Fit Index)	0.96	>0.9	Accepted
IFI (Incremental Fit Index)	0.997	>0.9	Accepted
RFI (Relative Fit Index)	0.974	>0.9	Accepted

The above table shows that model fitness index i.e. RMSEA, is lower than 0.08; therefore, the model has suitable fitness.  $\chi^2/df$  is lower than 3 that indicates the number of samples is adequate. The structural model is shown in both standard and non-standard states:

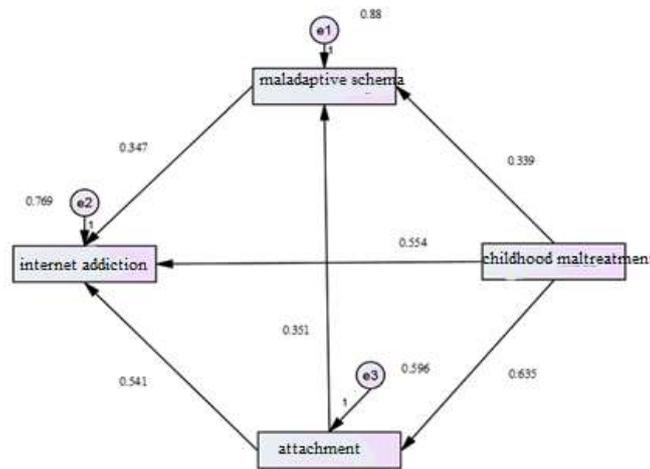


Fig 1: research operational model in the standard state

## Discussion and Conclusion

When an individual faces maltreatment of parents and relatives in the childhood, she loses the self-confidence and self-esteem and feels that she is doing a wrong work which can be punished by others; therefore, she reduces her relationship with others to get rid of this condition and does not transfer this feeling to others. This social isolation leads the child toward all types of addiction, including internet addiction. Cyberspace is a place in which an individual spends the time far from the real individuals around her and has less fact to face communication with other people. An individual think that face to face communication can indicate her weaknesses and therefore, she uses internet excessively.

The proper behavior of parents and relatives with the child can bring a secure and peaceful environment for the child and this leads to secure attachment in them. Children enjoy their relationship with their family members, and this relationship can occur outside the home such that children feel secure attachment with their peers and friends.

Childhood maltreatment increases the psychological problems in children, including attachment problems, and causes that children cannot trust other people. This leads to insecure attachment styles, especially ambivalent attachment style. These people often feel that other people are not inclined to have close relationship with them and this can be related to their mentality about their childhood.

Childhood maltreatment induces this feeling in the children that they are worthless and have no suitable position in the society and among the relatives; this can lead to social isolation and taking distance from social groups. Because the individual wants to experience this feeling

less, he/she resorts to isolation. Childhood maltreatment can increase the feeling of instability and abandonment because they feel the lack of support by others and believe that are abandoned and unstable. When parents pay no attention to their children, they provide the ground for emotional deprivation such that the child cannot control his emotions.

People with secure attachment have constructive communication with others; therefore, they feel no concern and difficulty in their social relationships. Feeling difficulty in the relationships can lead to isolation and taking distance from others; the individual tries to busy his mind to get rid of this isolation and therefore, she resorts to the addiction to soothe her concerns. One of these addictions is internet addiction because the individual feels that, by excessive use of the internet, he/she can reduce his/her communication problems with the real world and other people; therefore, he/she will be addicted to the internet. In fact, an individual feel that by spending more time in cyberspace, he/she can solve his/her real-world problems which leads to internet addiction.

People with primary maladaptive schemes feel that they do not receive the love of others, and feel isolation and loneliness. When the isolation of people from society increases, their addiction and deviation will increase. On the other hand, people with maladaptive schemes are unable to do their daily activities because they lose their abilities and become dependent on others; therefore, they feel more dependence and inadequacy.

The reason for the high relationship of defectiveness and shame with internet addiction is that people, due to the shame and defectiveness they feel in themselves, try to become less present in the social environments or form their communication in other covertly or in virtual shapes. Cyberspace and the internet can be a suitable opportunity for them; therefore, internet addiction level will increase in them.

While people with insecure attachment style feel more insecure and as a result, instability and fragility, therefore, they are happy for a moment and sad and isolated in another moment which indicates the maladaptive schemes of abandonment or instability. Insecure avoidance style causes that individual takes distance from the society and this distance can be formed due to the lack of trust to people; therefore, this lack of trust leads to mistrust schema and social isolation schema. Ambivalent insecure attachment style causes that people have ambivalent and contradicted actions which lead to instability and abandonment schema. People with ambivalent attachment style feel high shame and defectiveness because they have no trust to other people and often think that other people are not interested in them. This can increase defectiveness and shame schemes in them.

### **Suggestions**

It is suggested that authorities, by holding seminars for parents or imperative training courses for couples about the behavior of parents and the effectiveness of this behavior on the addiction before having children, reduce the internet addiction of the society.

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