

## Predicting Social Network Addiction Based on Maladaptive Schemas Mediated by Psychological Capital

### Abstract

The present study aimed to model structural equations for predicting social network addiction based on initial maladaptive schemas mediated by psychological capital in students during corona quarantine days. The present study was a correlational study and the present study was an applied goal. The statistical population included all female high school students in District 9 of Tehran in the academic year of 1998-99, whose number was about 10,000 and from among them, 294 people were selected based on Howitt and Cramer's opinion. To collect data from the psychological capital questionnaire of Loutanz, made by researchers question of orientationnaires to using social media of Momeni and Taghilou and questionnaire of schema maladaptive of Yang. According to statistical reports, Cronbach's alpha coefficients of all variables were close to 0.7 or higher, indicating that the items of the questionnaires used to measure the variables of the study have acceptable internal consistency. Findings of this study showed that early maladaptive schemas positively and significantly as well as psychological capital negatively and significantly predict social network addiction and psychological capital positively and significantly predict the relationship between maladaptive schemas It mediates primary and social media addiction. The results showed that early maladaptive schemas positively predict social network addiction. It was also found that psychological capital negatively and significantly predicts addiction to social networks and psychological capital positively and meaningfully mediates the relationship between early maladaptive schemas and addiction to social networks.

**Keywords:** social media addiction, students during corona quarantine, psychological capital, early maladaptive schemas.

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### Introduction

The Internet is one of the prerequisites for the emergence of virtual social networks, and this network enables users to exchange information and communicate with others faster and easier. In other words, the purpose of social networks is to establish regular communication between people. Social networks such as Facebook, WhatsApp, Telegram and Instagram have grown rapidly in a short period of time and are becoming more and more popular among people, especially among teenagers (Muninger, Hamed and Maher, 2019).

Now, due to the quarantine days caused by the coronavirus, the education of students has become possible with the help of a number of these same social networks. Restrictions on peer groups in social environments, social support networks in children and adolescents are limited, and their tendency to use cyberspace has increased, which may lead to them becoming addicted to the Internet.

It should be noted that one of the other topics about students is academic vitality, which can be very important for them in quarantine conditions. Academic vitality means students' successful ability to face obstacles, academic challenges and overcome They are (Komayi, Askari, Heydari, Naderi, Makoundi, 2020) and in another definition as a positive, constructive and adaptive response to all kinds of challenges and obstacles in the field of current and continuing education ( Komayi, Askari, Heydari, Naderi, Makoundi, 2020). By providing positive feedback on their successes and efforts, they

satisfy the need for competence and by establishing effective and accepting relationships, they satisfy the need for belonging in them and ultimately increase their self-efficacy (Hosseini Iraj, Mehdian, Jajarmi, 2020 ).

On the other hand, considering the conditions created for students to study at home, the role of parents has become very important. Because parents are the best and closest sources to help during quarantine, one of the closest possible links to identifying any physical problems you know is in adolescence. Parents, in addition to overseeing the behavior and behavior of adolescents, should respect their identities and needs and help them to expand their disciplinary skills .

### Research Methodology

The present study is a descriptive study according to the applied purpose and research design in which the correlation method has been used. The statistical population of this study was female high school students in the 9th district of Tehran in the 99-98 academic year, whose number was considered based on statistics obtained from the education of the 9th district of Tehran (100 public girls' schools). The number of students is 10,000. The research sample was estimated at 294 students. Based on this, 294 people were selected from among the 100 public girls 'schools among the existing public girls' high schools in District 9 of Tehran, so 30 schools. The questionnaires were randomly selected and distributed to the school for completion with informed consent and informed consent. Therefore 294 questionnaires were distributed in the

form of links in the second secondary school for girls and online in class groups and after answering them by students, were collected. In the present study, before starting the work, the participant (volunteer) was informed about the subject and method of the study and was aware that participation in the research will not cause any financial burden for the participants. The candidates' private and personal information will also be protected and the results will be interpreted for them if desired.

Among the physical effects of coronary artery disease on adolescents during coronary heart disease are the following.

In the social dimension, researchers also refer to adequate social support, inadequate information, reduced family incomes, and the incidence of communicable infectious diseases (Brooks , 2020; Plicia, 2015; Biochemists, 2004; Lino , 2007).

According to the theory of Internet addiction and cyberspace Kimberly Young (1998) dependence on social networks as a way of mental preoccupation with the Internet, feeling the need to increase usage time to gain satisfaction, inability to control yourself, and feeling restless and irritable when stopping using the Internet, using it to calm the mood, is defined as a way to escape problems and lie to those around you in order to mask up the amount of use and get caught up in the Internet (Young, 1998).

#### **Research tools**

##### **Psychological Capital Questionnaire of Luthans et al**

This questionnaire was designed in 2007 by Luthans et al. The questionnaire consists of 24 items and 4 subscales of hope, resilience, optimism and self-efficacy in which each subscale contains 6 items and the subject answers each item on a 6-point scale (strongly disagree to strongly agree) Likert. Questions 1 to 6 are related to self-efficacy, questions 7 to 12 are related to the subscales of hope, questions 13 to 18 are related to the subscale of resilience, and 19 to 24 are related to the subscales of optimism. To obtain the psychological capital score, first each subscale score is obtained separately, then their sum is considered as the total psychological capital score. The chi-square ratio of this test is equal to 24.6 and the statistics in this model are 0.97 and 0.08, respectively. Luthans et al. Reported the reliability of the questionnaire above 0.90 and verified the validity of the questionnaire using face validity. In Iran, Sarami and Akhundi in 1393 obtained Cronbach's alpha coefficient for the whole test of 0.86 and used content validity for its validity, which has been confirmed.

##### **Researcher-made questionnaire about the tendency to use social networks**

This questionnaire was developed in 2016 by Momeni and Taghi Lou. They first designed 18 items based on a review of available resources and questionnaires, measuring the

propensity to use social media in a 5-point range strongly disagree (1) to strongly agree (5). Momeni and Taghilou evaluated the factor structure of this questionnaire by principal component analysis method and showed that a total of 7 out of 18 items do not have the necessary ability to measure the variable of tendency to use social networks. They reported the internal consistency of the 11-item questionnaire using Cronbach's alpha method of 0.82 and the correlation coefficient of the test (with an interval of two weeks) of 0.63. Momeni and Taghilou have a correlation coefficient between the scores of the Social Networking Tendency Questionnaire with the components of negative thoughts and positive thoughts of the Social Interaction Questionnaire respectively. 0.29 reported that it indicates the simultaneous validity of the questionnaire.

##### **Yang Incompatible Schema Questionnaire**

This 75-item questionnaire was developed by Jeffrey Young (1988) to assess early maladaptive schemas. 18 general schemas such as: emotional deprivation, rejection, abandonment, mistrust and misbehavior, social isolation, shame, failure, dependence, inadequacy, vulnerability to harm or disease, self-evolving, entanglement, obedience, self-sacrifice, Measures acceptance, attention seeking, merit and greatness, self-control, inadequate self-discipline, emotional inhibition, stubbornness, negativity, pessimism, and punishment. These 18 schemas are located within 5 domains according to the initial transformation domains. The results of factor analysis also support the internal structure of the questionnaire. Its validity was reported by Cronbach's alpha method of 0.49 by Young, Klasco and Wieshar in 2011. For its validity, the correlation of its scores with the scores of irrational beliefs of Jones was 0.43 reported by Barazandeh in 2005. In Iran, the validity and reliability of this questionnaire were examined by Divandari, Ahi, Akbari and Mehdian in 2009, to estimate the reliability of the test through internal consistency, Cronbach's alpha method was used. Cronbach's alpha was calculated to be 0.94 and the internal consistency coefficient in the range of 0.65 to 0.92 indicates the internal consistency above the subscales. Divergent and convergent validity in relation to conceptual constructs such as self-esteem, psychological helplessness, personality disorders and dysfunctional attitudes related to depression have been studied and a significant correlation has been obtained and the validity of the questionnaire is at a desirable level.

In this study, statistical information analysis was performed in two parts: descriptive and inferential. In the descriptive part, central indices and dispersion (mean, standard deviation) were used and in the inferential part, the statistical test of structural equations was used and Cronbach's alpha was used to assess the validity of the questionnaires.

In this section, first descriptive findings and then inferential findings are reported.

## Research Findings

**Table 1: Mean, standard deviation, and Cronbach's alpha coefficient of incompatible schemas, psychological capital, and social network addiction**

| variable                                  | average | The standard deviation | Cronbach's alpha |
|---|---------|------------------------|------------------|
| Schema - cuts and rejections              | 54.7    | 7.07                   | 0.87             |
| Schema - Autonomy and dysfunction         | 48.63   | 6.58                   | 0.92             |
| Schema - another direction                | 25.03   | 3.51                   | 0.79             |
| Schema - Excessive ringing and inhibition | 24.11   | 3.88                   | 0.8              |
| Schema - Disrupted constraints            | 25.28   | 3.96                   | 0.77             |
| Psychological capital - self-efficacy     | 23.92   | 4.24                   | 0.73             |
| Psychological capital - hope              | 24.85   | 3.73                   | 0.68             |
| Psychological capital - resilience        | 26.15   | 3.54                   | 0.71             |
| Psychological capital - optimism          | 24.28   | 4.57                   | 0.65             |
| Addiction to social networks              | 42.60   | 8.16                   | 0.84             |

**Table 2: Elongation and skewness of research variables**

| variable                                  | skewness | Elongation |
|---|----------|------------|
| Schema - cuts and rejections              | 0.9      | 0.75       |
| Schema - Autonomy and dysfunction         | 0.73     | 0.75       |
| Schema - another direction                | 0.42     | 0.19       |
| Schema - Excessive ringing and inhibition | -0.64    | 0.92       |
| Schema - Disrupted constraints            | 0.71     | -0.45      |
| Psychological capital - self-efficacy     | 0.12     | -0.68      |
| Psychological capital - hope              | -0.18    | -0.06      |
| Psychological capital - resilience        | 0.26     | 0.73       |
| Psychological capital - optimism          | -0.15    | -0.34      |
| Addiction to social networks              | 0.47     | 0.59       |

**Table 3: Inflation factor and the coefficient of tolerance of predictor variables**

| variable                                  | Tolerance coefficient | VIF  |
|---|-----------------------|------|
| Schema - cuts and rejections              | 0.51                  | 1.97 |
| Schema - Autonomy and dysfunction         | 0.22                  | 4.59 |
| Schema - another direction                | 0.27                  | 3.68 |
| Schema - Excessive ringing and inhibition | 0.37                  | 2.69 |
| Schema - Disrupted constraints            | 0.29                  | 3.41 |
| Psychological capital - self-efficacy     | 0.42                  | 2.36 |
| Psychological capital - hope              | 0.39                  | 2.58 |
| Psychological capital - resilience        | 0.47                  | 2.11 |
| Psychological capital - optimism          | 0.36                  | 2.78 |

**Table 4: Parameters of research measurement model in confirmatory factor analysis**

| variable                                  | b     | $\beta$ | SE    | T*    |
|---|-------|---------|-------|-------|
| Schema – cuts and rejections              | 1     | 0.678   | -     | -     |
| Schema – Autonomy and dysfunction         | 1.318 | 0.951   | 0.093 | 14.16 |
| Schema – another direction                | 0.607 | 0.827   | 0.047 | 12.86 |
| Schema – Excessive ringing and inhibition | 0.651 | 0.803   | 0.052 | 12.54 |
| Schema – Disrupted constraints            | 0.646 | 0.798   | 0.049 | 12.52 |

|                                       |       |       |       |       |
|---------------------------------------|-------|-------|-------|-------|
| Psychological capital – self-efficacy | 1     | 0.807 | -     | -     |
| Psychological capital – hope          | 0.908 | 0.833 | 0.058 | 15.62 |
| Psychological capital – resilience    | 0.795 | 0.770 | 0.056 | 14.16 |
| Psychological capital – optimism      | 1.136 | 0.855 | 0.071 | 16.08 |

\* Non-standardized factor loads for cut-off, rejection, and self-efficacy indicators are fixed at 1, so standard error and their critical ratio are not calculated.  $P < 0.01$

Table 4 shows that the relationships between factors and their related indicators are significant and in the expected direction. The highest factor load belonged to the self-regulation and dysfunction marker ( $\beta = 0.951$ ) and the lowest factor load belonged to the cut-off and rejection marker ( $\beta = 0.678$ ) of the initial maladaptive schemas. All factor loads were higher than 0.32 and therefore all indicators of the measurement model had the necessary power to measure the latent variables of the present study.

### Conclusion

The results showed that the total path coefficient between the initial maladaptive schemas and addiction to social networks is positive and significant at the level of 0.01. predicts. The path coefficient between psychological capital and addiction to social networks is negative and significant at the level of 0.01. Thus, it was concluded that psychological capital negatively and significantly predicts addiction to social networks. Finally, the indirect path coefficient between early maladaptive schemas and addiction to social networks is positive and at a significant level of 0.01. Thus, in testing the third hypothesis, it was concluded that psychological capital positively and meaningfully mediates the relationship between early maladaptive schemas and social network addiction.

Explaining the findings, we can say that schemas are a cognitive structure for perceiving, organizing, processing and exploiting information. They remain relatively constant over time, leading to consistent ways of perceiving and using information. The deep and unshakable beliefs that are formed in childhood about oneself, others, and the world around us play a decisive role in shaping one's feelings about oneself. Therefore, these beliefs, despite the harm they may inflict on the individual, can also create a sense of security. But sometimes people are drawn to events that do not fit their schemas and are difficult to change. This condition can affect the lives of children and adolescents. In fact, in terms of the characteristics of early maladaptive schemas, it must be acknowledged that when someone is said to have a schema, it does not mean that the schema is always active, but that the schema is an attribute that may not be active at a particular moment. Do not improve or arouse the environment. Therefore, considering the importance of the need for officials and families to discuss addiction to social networks, as well as the importance of schemas and how and when they are formed in childhood and adolescence, and given that schemas also play an important role in shaping people's expectations and beliefs,

It seems that in order to promote mental health, special attention should be paid to the family and their schemas, because it is the first source of personality and beliefs of children and adolescents about themselves, others and the world, and family-derived schemas in childhood have a significant impact on children's behavior and Adolescents will become addicted to the Internet and social media. Social capital refers to the value of potential assets that a person acquires based on whom they know, what social networks they are associated with, and what credibility they have. This capital, while including the capabilities and capabilities of social and human capital, can even go beyond them. Psychological capital is one of the most important human abilities that makes a person adapt to living conditions. Also, having psychological capital enables a person to not only deal with stressful situations better, but also to be less stressed and be able to cope with problems. Have a clear view of themselves and be less influenced by daily events. As a result, such people have higher psychological health. This makes children and adolescents immune to the discussion of addiction to social networks and the Internet, which means that the higher the amount of psychological capital, the necessary ability to not be addicted to the Internet and social networks, so that a person understands himself , Has a goal to achieve success and perseverance in the face of adversity. Psychological capital increases one's self-efficacy. Self-efficacy, one's belief about one's ability to succeed in a particular field, has been argued that people's level of influence and level of activity is based more on beliefs than on beliefs. Objective measurements. So how a person behaves can often be predicted by the beliefs they have about their abilities by what they are capable of doing. Psychological capital is a positive psychological state and a realistic and flexible approach to life that has 4 constructs of hope, optimism, resilience and self-efficacy, each of which is associated with Internet addiction and combines These four components of hope, optimism, resilience and self-efficacy together in the form of a higher level structure, namely psychological capital, reduce the tendency of people to addiction to social networks and help Because of the number and level of psychological constructs that are manifested in their cognition, motivation, and ultimately their behavior, compared to people who show only hope or optimism or resilience or self-efficacy in a given situation. , Have better performance. One of the limitations of the research can be mentioned as follows: The implementation of this research was

limited to the geographical region of District 9 of Tehran. Considering that the sample group in this study consisted of female high school students in District 9 of Tehran, so He was wary of other people. The impossibility of face-to-face encounter with the sample population due to the prevalence of coronary heart disease is also an important issue. Considering that the questionnaires have a self-assessment aspect, there may be a bias in their answers. Future personality traits should also be considered and evaluated.

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**Institutional review board statement:** this study was conducted based on the results of master's thesis and was approved by the ethics committee for the publication of their sample findings.

**Informed consent statement:** Study subjects gave informed permission for the publishing of their samples' findings.

**Data availability statement:** the authors confirm that the data supporting the finding of this study are available within the article. Further inquiries, please contact the corresponding author.

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