# The Impact of a Cognitive Behavioral Guidance Program on Reducing Internet Addiction and Social Isolation Behavior for a Sample of Adolescent Students

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## Abstract

*The study aimed to identify the efficacy of a cognitive behavioral guidance program in reducing internet addiction and social isolation behavior for a sample of adolescent students from Zarqa City. The sample comprised (60) male and female eighth and tenth graders. They were randomly divided into two groups: control and experimental. Each consisted of (30) students who scored the highest on internet addiction and social isolation scales. The study adopted a guidance program based on cognitive behavioral therapy. The program included (10) guidance sessions of (60) minutes each, a session per week. The results revealed a difference with statistical significance at the function level ($a = 05$) between the two groups on the post-measurement on the two scales, addiction and social isolation. Such a result reflected the efficacy of the program in reducing addiction and social isolation. The study recommended using such programs in all institutions of education.*

## Introduction

The Internet has recently become an essential means of communication, education, work, and recreation. After Covid-19, it became even more important. Its users increased from (738) million in (2000) to (4.9) billion users (2021) worldwide. According to the Internet World Statistics, (2019) witnessed a massive increase in the number of individuals using it, which implied that half of the world's population was involved in internet activities throughout that period, and that led to increasing use of smartphones, even by children, especially kindergarten children (Shahana et al, 2023).

For people of this age, using the internet is no longer optional due to its multi-search drives and sites, which invade all fields of social life—creating a new age of communication and interaction among individuals. It has also provided an immense amount of information and knowledge to its users. It is now available in homes, coffee shops, education institutions, and workplaces. It is now a haven for people of different ages and attitudes, as they spend their free time surfing it for information, data, news, or communicating with others as chats and conversations through voice and image have become more accessible. The internet has several benefits, for it opened a new era of communication and provided information and knowledge to its users. Still, on the other hand, the excessive use of the internet might have dire consequences and adverse psychological, corporal, social, and cultural effects.

With the widespread of the internet, addiction has become one of the significant problems that cause severe damage to the growth of physical, mental, and academic performance, especially in adolescence.

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(Anderson et al, 2017) pointed out that internet addiction is a pathological and non-consensual case that increases the risks of social, academic, and personal problems. Internet addiction has several forms: social media addiction, electronic games addiction, watching movies, etc. Although the internet has multifarious uses in several fields and has become an indispensable necessity for this life, it excessively exposes individuals to numerous problems that contradict psychological health (Berner & Bhugra, 2013).

The adolescence stage is the period in which adolescents are liable to misuse the internet because of the psychological problems they suffer from. Hence, the adolescent recourses to the internet, which isolates him more and weakens social interaction and communication with his family (Mukhtar, 2019). This period is crucial for academic achievement, career choice, and the creation of social relationships. Due to the nature of the problems the adolescent suffers from and reflected in the changes he goes through, being physical, psychological, social, and cognitive, he is compelled to withdraw to the virtual world of the internet, thus imposing isolation on himself and becoming an addict.

Several factors might lead to internet addiction: boredom and idleness, lack of parental control, privacy, and identity hiding. Through it, the adolescent experiences adventure and freedom from the shackles imposed by society (Blachnio et al, 2019). Life pressure and daily problems force adolescents to create a dream-like world free from laws, traditions, and norms (Alfi, 2008).

The internet might be, for the adolescent, a means to escape from the real world to an alternative one where he feels loved, with an identity that he lacks in the real world (Mukhtar, 2019). Astage of Internet addiction is a stage in which the individual no longer controls his use but excessively proceeds further to the extent that negatively affects his life (Blachnio et al, 2019) defined it as "the excessive use of the internet which leads to negative consequences on user's life". Ibreim (2015) defined it as "a case of irresistible pathological use of the internet where it becomes a type of habit which satisfies real or imaginary psychological or life desires of the user that lead to numerous behavioral disorders".

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Psychological harms are demonstrated by an individual's creation of an imaginary world, such as the inability to create a sound personality that interacts with the community in the real world. Moreover, the addict might suffer from stress, anxiety, trauma, aggressiveness, and psychological and mental disturbances (Mukhtar, 2019). Add to that the social effects reflected in the loss of friends; social effects reflected withdrawal and inclination for isolationism (Abdulrahman, 2018). Addiction to the internet has moral implications because it opens doors to pornography for children and youth without limits or moral controls.

Nobody can ignore the academic effects of excessive use of the internet. A study by (Blachnio et al, 2019) revealed that (86%) of teachers confirmed that children's internet use did not improve their performance because internet information was disorganized and had nothing to do with the school syllabus. Other studies like those by (Alfi, 2008) unveiled that the individuals who were more susceptible to internet addiction were the emotionally unstable persons, the more aggressive, and those who suffered from anxiety and inability to initiate relationships, besides people 15-18 years of age.

Hence, internet addiction weakens the adolescent physically and psychologically, affecting his social,

professional, and moral life. (Faundes, 2018) noted that recently, all classes of society have access to the internet, regardless of its different uses. It has now become one of the indispensable necessities for this life, but it changes into a psychological and physical problem once it becomes an addiction. What augments the dangers of internet addiction is the availability of smartphones and internet packages, which are easy to get by all classes of society. The International Telecom Union (ITV) indicated that (4.9) billion people, which amounts to (63%) of the world population, use the internet.

A study by (Cerniglia et al., 2017) and (Anter, 2017) revealed that there is a relationship between insomnia, panic, nightmares, night roaming, sleep disorders, and internet addiction, the adolescents who suffer from social anxiety, personal seclusion, bipolar disturbances, and severe depression, also there are relationship between internet addiction and low self-esteem.       The adolescent who use the internet to reduce guilt, anxiety, low self-respect, and low satisfaction with life all predict future internet addiction (Saleemah, 2015).

A study by (Ruihao, 2023) pointed out that most addicts are adolescents. Misuse of the internet mostly correlates to a set of bad psychological results for adolescents and adults. The study helped diagnose and manage addiction early for adolescents who suffer from mental and personal disorders. The study also revealed that addiction correlated to a lousy lifestyle; switching on a computer monitor negatively affects the rhythm of the biological watch of the user and delays the sleeping hour.

The study by (Kraut et al,1998) revealed that internet use had adverse psychological and social effects. The more the internet is used, the lower the social activity becomes, and the more isolation is experienced. Orzack & Orzack (1999) Pointed out that internet addiction is a term used to describe individuals who spend a long time using the internet, thus isolating themselves from friends and family, and disregarding whatever they do. Davis (2001) also stated that addiction involves pathological behaviors and non-adaptive ideas; the former relates to personal problems between a co-worker, study, neglecting friends and responsibilities, signs of withdrawal, and fury and change of lifestyle if the individual is denied using the internet.

In 1998 put eight standards, of which (5) if avail in any individual, he is considered an addict. These are:

1- Obsession with the internet.
2- A need to use the internet for a long time to satisfy oneself.
3- Using the internet for a period longer than the scheduled time.
4- Experiencing a feeling of anxiety, depression, and anger if denied the use.
5- Lying to family and friends about activities done by the individual on the internet.
6- Failed attempts to stop using the internet.
7- Using the internet to escape from problems.
8- Risk of losing essential relationships at work, education, or even losing the job.

(Oseimi, 2010) listed four factors that might encourage individuals to be internet addicts. They are the following:

1- Bad management of time and liberating oneself from parental control.
2- Absence of internet control.
3- Escape from problems and pressures.
4- Lack of compassion and love, which the user searches for on the internet, in addition to boredom and idleness, besides the inability to initiate social relationships.

There is a clear relationship between internet addiction and social isolation reflected in adolescents' playing games on the net, studies by (Hassan, 2020; Yang & Line, 2017) found a positive relationship between social isolation and internet addiction and social media. In a study conducted by (Wang et al, 2021), on isolation and depression of secondary-level students, the results showed that the isolation level was high among addicts. There was a correlation between isolation and depression.

Finally, the study by (Ruihao, 2023) unveiled that the study sample suffered from internet addiction was demonstrated at the social isolation scale. The isolation was generally reflected in failure to participate in social situations appropriately and absence of social media methods represented in having no social relationships, building friendships with peers, hatred for contacting others, isolating oneself from surrounding people and environment, and indifference towards what was happening.

The preceding studies pointed out that seclusion is the most common behavioral disorder spreading among adolescents and youth. It is the factor that primarily affects their life, education, and interaction with peers and families. Its adverse effects might lead to some psychological and social diseases that are difficult to treat. Isolation significantly affects the growth of the brain; isolated children are more susceptible to health problems later at the maturity stage (Anderson et al, 2017). Shehana (2023) attempted to outline evidence on the active therapeutically intervention to remedy children and adolescents' internet addiction, found that therapeutically interventions, especially the Cognitive Behavioral Treatment (C B T), medicines, and electro-acupuncture, effectively reduced internet addiction and game disorders.

Another study concerned with therapeutically treatment was conducted by (Ahmed et al, 2021), which revealed that internet spread among adolescents might lead to recklessness and aggressiveness, which in turn leads to internet addiction. The behavioral cognitive therapy, besides anti-depression medicines and excessive movement, might be a promising solution for addiction. Many experimental studies confirmed that therapeutic interventions help reduce internet addiction and social isolation. Hence, the current study was conducted to help a sample of adolescent internet addicts who scored high on the social isolation scale.

## The Study Problem

Internet addiction and social isolation are behavioral problems that are noted in adolescents who excessively use the internet and eventually isolate themselves from others. The adolescence age stage and the inability of the adolescent to control using the internet, in addition to his curiosity to know whatever is new away from family and school, encourage addiction; several studies indicated that internet addiction is closely related to other variables like social isolation, psychological unity, anxiety, depression, introversion, and frustration. This is the motivation behind conducting the current study to prepare a guidance program to reduce net addiction, besides social isolation for a sample of adolescents to help them get involved in social life and into actual contact with others. Even more, the study is concerned with the academic and social life of those adolescents threatened by internet addiction and loss of time.

## The study Objective

The study aims to identify a cognitive behavioral guidance program's efficacy in reducing internet addiction and social isolation for a sample of adolescents.

## The Study Significance

The significance stems from the importance of the targeted group, the adolescents, whose identities and personalities are formed during the adolescence period. This study provides educators with an effective therapeutically program to be used for students to reduce internet addiction and social isolation. In addition, it prepares the tools that help the concerned to measure addiction conduct and isolationism.

## The Study Hypotheses

1- There are no differences with statistical significance at the function level ($\alpha \leq 0.05$) between the score

means of the experimental and control groups on the post scale of internet addiction in favor of the experimental group.

2- There are no differences with statistical significance at the function level ($\alpha \leq 0.05$) between the score means of the two groups in favor of the experimental group.

## Method and Procedures

The study adopted the quasi-experimental approach with pre- and post-measurement for experimental and control groups.

1- Independent variable: a cognitive behavioral guidance program.
2- Dependent variable: Sample members' scores on the two scales, internet addiction and social isolation.

### The Study Population

The population comprised eighth and tenth adolescent graders from public schools of Zarqa's first directorate of education.

### Study Sample

The study sample was selected from the students who scored the highest on the internet addiction and social isolation scales, whose number amounted to (60). They were randomly divided into experimental (subjected to guidance training) and control (not subjected to training).

### Study Tools

The following were the tools used:

### 1- Internet Addiction Scale

This was designed with reference to previous studies like those by (Yang & Lin, 2017). It was designed to measure the possible addiction factors: withdrawal symptoms, mood change, headache, endurance, and relapse symptoms. In its final shape, the scale consisted of (20) items to be answered in five grade measurement forms: Always (5 points), general (4 points), sometimes (3 points), rarely (2 points), and never (1 point). The total degree of the scale is (20-100), where the highest indicates a high degree of internet addiction. Low degree ranges between (1.2.33), medium (2.34- 3.66), and high (3.67-5). The virtual validity of the scale was verified by specialists in the field where the agreement percentage was (80%); the internal consistency was verified by Reason Coefficients, where the correlation coefficient for each item ranged between (0.397- 0.787). As for the scale's reliability, Cronbach alpha was used and applied to an exploratory sample of (50) students extraneous to the study sample. The correlation coefficient value amounted to (0.89) and (0.80) using the split-half method.

### 2- Social Isolation Scale

This was designed with reference to previous studies like those by (Berner & Bhugra, 2013; Anter, 2017; Blachnio, 2019). The scale consisted of (46) items that measured voluntary and non-voluntary isolation. The virtual validity was verified by specialists in the field; the percentage of agreement amounted to (80%). The implications of construction validity were elicited by computing the correlation coefficients of each item in relation to the total degree of the scale, which ranged between (0.46 – 0.83). As for the reliability of the scale, it was verified by a (Test- Retest) sample extraneous to the study counterpart. The internal consistency coefficient was calculated using the Cronbach alpha coefficient, which amounted to (0.95). The scale is a five-graded one where the high degree on the scale corresponds to a high degree of social isolation; the lower-level ranges between (1- 2.33), medium (2.34 - 3.67), and high (3.68 -5).

## 3- Guidance Program

The program aims to reduce internet addiction for members of adolescent students from the experimental group in light of cognitive behavioral therapy. The program used numerous technologies, of which are the following:

1- Lecturing and discussion: This tackled the meaning of addiction, its several disadvantages, the meaning of isolation, its causes, and its harms.
2- - Self-control alarm includes self-control, recording access time to the internet, stimulants' control, and self-enhancement.
3- Cognition reconstruction: Identifying ideas and their impact on behavior emotions and substituting non-adaptive ideas with adaptive ones.
4- Training on social skills.
5- Using role-play technologies within the training group on social skills.
6- Using reminder cards by writing on five problems resulting from excessive internet use; five answers need to be written regarding relegating the internet. The student keeps these cards as reminders of the internet's excessive use.
7- Practicing time management and consolidating self-achievement.

The validity of the program content was verified by sending it to a group of judges specialized in the field, considering the remarks and proposed recommendations.

## Results and Discussion

The first hypothesis reads, there are no differences with statistical significance at the function level ($\alpha \leq 0.05$) between score means of the experimental and control groups on the post-scale internet addiction in favor of the experimental group.

To verify the validity of the hypotheses, it was computed to identify differences between the two groups on pre- and post-tests regarding internet addiction and social isolation before and after applying the guidance program. Table (1) illustrates the point.

**Table (1)**: MANOVA Analysis of the Cognitive Behavioral Program for Isolation and Addiction.

| | Effect | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| Intercept | Pillai's Trace | .985 | 887.163[b] | 4.000 | 55.000 | .000 | .985 |
| | Wilks' Lambda | .015 | 887.163[b] | 4.000 | 55.000 | .000 | .985 |
| | Hotelling's Trace | 64.521 | 887.163[b] | 4.000 | 55.000 | .000 | .985 |
| | Roy's Largest Root | 64.521 | 887.163[b] | 4.000 | 55.000 | .000 | .985 |
| Exact statistic | Pillai's Trace | .580 | 18.970[b] | 4.000 | 55.000 | .000 | .580 |
| | Wilks' Lambda | .420 | 18.970[b] | 4.000 | 55.000 | .000 | .580 |
| | Hotelling's Trace | 1.380 | 18.970[b] | 4.000 | 55.000 | .000 | .580 |
| | Roy's Largest Root | 1.380 | 18.970[b] | 4.000 | 55.000 | .000 | .580 |

a. Design: Intercept +
b. Exact statistic

Table (1) shows that the calculated (F) value for Wilks' Lambda was (18.970), which was more than the value of critical (F). The null hypothesis was rejected since the probability value was less than (0.05). Such a thing proves the existence of differences with statistical significance at the function level between the two groups regarding the pre-and post-tests of social isolation and internet addiction. Table (2) illustrates the point.

**Table (2):** A Variance Analysis to Identify the Differences Between the Experimental and Control Groups About Pre-and Post-Tests for the Isolation and Addiction Variables Before And After the Program Application.

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| Corrected Model | Pre-isolation test | 2.017[a] | 1 | 2.017 | 3.345 | .073 | .055 |
| | Pre-addiction test | .267[b] | 1 | .267 | .411 | .524 | .007 |
| | Post-isolation test | 8.067[c] | 1 | 8.067 | 11.736 | .001 | .168 |
| | Post-addiction test | 45.067[d] | 1 | 45.067 | 62.934 | .000 | .520 |
| Intercept | Pre-isolation test | 952.017 | 1 | 952.017 | 1579.132 | .000 | .965 |
| | Pre-addiction test | 976.067 | 1 | 976.067 | 1502.970 | .000 | .963 |
| | Post-isolation test | 528.067 | 1 | 528.067 | 768.258 | .000 | .930 |
| | Post-addiction test | 653.400 | 1 | 653.400 | 912.453 | .000 | .940 |
| Group | Pre-isolation test | 2.017 | 1 | 2.017 | 3.345 | .073 | .055 |
| | Pre-addiction test | .267 | 1 | .267 | .411 | .524 | .007 |
| | Post-isolation test | 8.067 | 1 | 8.067 | 11.736 | .001 | .168 |
| | Post-addiction test | 45.067 | 1 | 45.067 | 62.934 | .000 | .520 |
| Error | Pre-isolation test | 34.967 | 58 | .603 | | | |
| | Pre-addiction test | 37.667 | 58 | .649 | | | |
| | Post-isolation test | 39.867 | 58 | .687 | | | |
| | Post-addiction test | 41.533 | 58 | .716 | | | |
| a. R Squared = .055 (Adjusted R Squared = .038) | | | | | | | |
| b. R Squared = .007 (Adjusted R Squared = -.010) | | | | | | | |
| c. R Squared = .168 (Adjusted R Squared = .154) | | | | | | | |
| d. R Squared = .520 (Adjusted R Squared = .512) | | | | | | | |

Table (2) reveals that the cognitive behavioral program was effective as it reduced social isolation after applying it. The calculated (F) value of the analysis of the post-test for social isolation amounted to (11.736), which was higher than (0.05) at the statistical function level (0.05). Therefore, the null hypothesis is rejected. Such a result proves the efficacy of the program in reducing social isolation. To identify in favor of which group was that adjusted arithmetic means for the pre-and post-tests of social isolation and addiction were computed. Table (3) illustrates the issue:

**Table (3):** Adjusted Arithmetic Means of the Pre-and Post-Tests for the Isolation and Addiction Variables.

| Dependent Variable | Mean | Std. Error | 95% Confidence Interval | |
|---|---|---|---|---|
| | | | Lower Bound | Upper Bound |
| Pre-isolation test | 3.98 | .100 | 3.783 | 4.184 |
| Pre-addiction test | 4.03 | .104 | 3.825 | 4.242 |
| Post-isolation test | 2.97 | .107 | 2.752 | 3.181 |
| Post-addiction test | 3.30 | .109 | 3.081 | 3.519 |

The adjusted arithmetic means presented in Table (3) reveal that the mean of the post-isolation test, after application, reduced to (2.96) after it was in the pre-test (3.98). The table also shows that the cognitive behavioral program reduced internet addiction; the calculated (F) value of the post-addiction test amounted to (62-93), which is more than the value of critical (F). The probability value was less than (0.05) at the function level (0.05). Therefore, the null hypothesis is rejected. Such a result unveils the program's impact with statistical significance in reducing addiction. To identify in favor of which group

the arithmetic mean value for the post-test of addiction, after applying the program (experimental group) reduced to (3.30) after it was 4.03) before the pre-test.

Such results revealed that the program effectively reduced social isolation and addiction, but there were no differences with statistical significance between the two groups in the pre-test. These results match those of (Shahana et al, 2023) regarding the efficacy of therapeutically interventions, especially cognitive behavioral therapy, in reducing adolescents' internet addiction. The results also match with the studies by (Bickham,2021) and other Arabic studies such as those by (Daham & Abu Eitah, 2017; Abu Hadrous, 2016; and Shaheen, 2015). All of them proved the efficacy of therapeutically programs in reducing internet addiction.

The results the researchers came up with might be traced back to what the program included from strategies, training, and purposeful activities embodied in comprehending addiction concept and its negative impacts, using Reminder Cards, cognitive reconstruction, time organizing, self-enhancement for achievement in addition to self-control and monitoring addiction behavior. The guidance program effectively reduced social isolation in the experimental group compared to the control counterpart. Such an efficacy might be traced back to the experiment individuals of the experimental group received and to the technical methods the cognitive behavioral therapy used to reduce social isolation behavior through group communication, role-play, and emotional expression. Add to that training on social skills such as communicating with others, self-expression, and cognitive reconstruction that train individuals to speak logically and control the ideas that affect the feelings and behavior of others.

The results above also agree with those by (Hassan, 2020; Abu Hadrous, 2016) on the efficacy of cognitive behavioral therapy in reducing isolation in the selected sample. The study results also agree with Anter (2017) regarding the program's efficacy in reducing social isolation and improving social skills. The study results agree, as well, with that by (Ahmed, 2017) regarding the efficacy of a program based on emotional-mental therapy to reduce the isolation level of talented students.

## Recommendations

Researchers of the current study would like to recommend the following:

- To apply the guidance program to schools through advisors.
- To conduct further experimental studies on reducing internet addiction and its psychological problems.
- To draw the attention of people in charge of the Ministry of Education to the importance of group guidance in overcoming psychological and behavioral problems.

## References

Abdulrahman, W. (2018). The efficacy of a cognitive behavioral guidance program in improving
social level skills and reducing isolation behaviors for university students, Unpublished Master Thesis, An-Najah University.
Abu Hadrous, Y. (2016). The efficacy of a cognitive behavioral guidance program in treating
social media addiction for a sample of Adolescents, *Zarqa Journal, 16* (3), 30-115.
Ahmed, A. (2017). Recruitment media. Dar Al-Muataz, Jordan.
Ahmed, S. et al. (2021). Social media addiction and its relationship to the social isolation of
Adolescents, *Research Journal, 1*(5).
Alfi, M. (2008). Internet addiction, Modern Egyptian Office.
Anderson et al. (2017). Internet use and problematic internet use: A systematic review of

longitudinal research trends in adolescence and emergent adulthood, International, *Journal of Adolescence and you'll, 22*(4), 430-454.

Anter, S. (2017). Parental methods of treatment, personality type, and sleep disorder for internet addiction predictors for a sample of university students, *Center of Psychological service, Ain Shams University, 9,* 89-122.

Berner, A, & Bhugra, D. (2013). Lifestyle use in adolescents in an Arabian Gulf culture, *Journal of Addiction Medicine 7*(4), 236-242.

Blachnio et al, (2019). Cultural correlates of internet addiction, *Cyber psychology, behavior, and social networking, 22*(4), 258-263.

Cerniglia et al, (2017). Internet addiction in adolescence, neurobiological, psychosocial and clinical issues, *Neuroscience and Bio-Behavioral Reviews, 76,*174-184.

Daham, M & Abu Eitah, S. (2017). The efficacy of a real group guidance program in improving social skills and reducing internet addiction behavior of adolescents, *Journal of International Education, 6*(7), 1-15.

Davis. R. A. (2001). A cognitive-behavioral model of Pathological internet use, *Computer in human behavior, 17*(2) 187–195.

Faundes, P. (2018). The effect of internet addiction and concurrent psychosocial Problems on the daily functioning and wellness of teenagers (doctoral dissertation), Brenau university.

Hassan, A. (2020). Children's addiction to electronic entertainment games and its relation to social isolation: A study from the perspective of general practice, *Journal of Social Studies and Research, 20,* 1088–1118.

Ibreim, S. (2015). Internet addiction and its relation to social isolation: A field study of a sample from Um Al-Bawaqi University, *Journal of Literature and Social Sciences, 21*(1), 231–246.

Kraut et al. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being, *Journal of American Psychologist, 53*(9), 1017–1031.

Mukhtar, W. (2019). Children and youth and internet addiction, Atlas for Publishing and Media Production.

Orzack, M. & Orzack, D. S. (1999). Treatment of computer addicts with complex Co-morbid psychiatric disorders, *cyberpsychology and Behavior, 2*(5), 465-473.

Oseimi, S. (2010). Internet addiction and its relation to psychological compatibility of secondary level students, (Unpublished Master Thesis), King Abdul Aziz University.

Ruihao, Lu, (2023). Adolescent internet addiction: Influence factors risk and neuroscience connectivity, *Journal of Education, Humanities and Social Sciences, 8,* 483 – 490.

Saleemah, H. (2015). Internet addiction: Age disorder, *Journal of Humanities and Social Sciences Algeria, 21,* 213-224.

Shahana et al, (2023). Treatment modalities for internet addiction in children and adolescents: A systematic review of randomized controlled traits, *Journal of Clinical Medicine12* (9), 33-45.

Shaheen, M. (2015). The efficacy of a cognitive behavioral guidance program in reducing internet addiction in a sample of university students, *Journal of Al-Aqsa University, 19*(2), 352-390.

Wang et al. (2021). Relationship between loneliness and depression among Chinese junior high school students: The serial mediating role of internet gaming disorder, social network use, and generalized pathological internet use, *Frontiers in Psychology, 11,* 529665

Yang, J. & Lin, L. (2017). Social Anxiety and Internet Addiction among Rural Left-behind children: The mediating Effect of Loneliness, *Iranian Journal of Public Health 46*(12), 1659-1668.