



# Dysfunction in Family Roles and Its Association with Problematic Internet Use among Adolescents

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## ABSTRACT

The study aimed to examine the correlational relationship between family dysfunction and problematic internet use among adolescents in secondary education. The researcher employed two self-developed instruments: the Family Dysfunction Scale and the problematic internet use Scale. The study was conducted on a purposive sample of 120 students (75 males, 45 females) from secondary schools in Port Said Governorate, aged between 16 and 18 years ( $M = 17.63$   $SD = 1.12$ ). Utilizing a descriptive research design, the findings demonstrated between family dysfunction and problematic internet use among adolescents. "As the Consistency Theory" This theory views the family as a social system composed of parts that depend on and interact with each other. The family as a system is governed by rules, and the family's interactions are organized according to these rules. There are organized patterns that make it possible for each family member to know what is permitted or expected of them. These usually unwritten rules help clarify how the family functions as a unit, form the basis for the development of family traditions, and largely determine what is expected of family members towards one another. The study concluded with practical recommendations and suggestions for future psychological research addressing adolescent behavioral patterns in relation to family dynamics and technology use.

## Introduction

The family is considered the primary environment where an individual is nurtured and acquires early experiences, skills, habits, and traditions. From the outset, parental influence plays a significant role in shaping the academic and behavioral outcomes of children, whether positively or negatively. Consequently, parents

make significant efforts to create a conducive family environment within the home.

The family, as the primary and fundamental building block of society, is one of the most important units and systems within society, where the reflections of changes occurring in society appear. Despite all the changes that have taken place in contemporary societies, family life still holds great importance and value for every

individual. The family plays a vital and central role in raising children and instilling values, customs, and traditions. It is the source of morality and the primary pillar for regulating behavior.

Moreover, the family has an important role in achieving social and emotional stability for its members, which is available in a healthy and cohesive family. The family's effective and positive role and its true importance in contemporary society lie in fulfilling its functions toward developing and building the individual's personality (Eid, 2017, P.51).

The family stands as the cornerstone of adolescent development, shaping individuals through care, guidance, and responsibility. By modeling behaviors, nurturing social ties, and fostering emotional bonds, it provides the foundation for hips but also guides the development of positive social behaviors and instills essential values like empathy and self-regulation. In essence, the family is the heart of \*\*society's role in molding individuals with a deep sense of responsibility, care, and emotional wisdom. (Lerner, 2002).

-In recent decades, societies worldwide have experienced profound transformations driven by technological progress, most notably the rise of the internet. This advancement has facilitated intellectual and cultural growth, redefined communication, and reshaped everyday life. Nevertheless, its widespread use has also introduced risks and challenges, generating mixed perceptions regarding its impact, particularly among adolescents (Abdel Moneim & Abdel Razaq, 2004, p. 43).

Problematic Internet use has emerged as a growing concern, with some individuals allowing their online engagement to interfere with real-life relationships. Rather than interacting with spouses, children, or friends, they often prioritize time spent on computers and digital platforms. While the internet offers opportunities for intellectual and social expansion, excessive use can lead to the neglect of essential familial and social responsibilities. Consequently, problematic internet use has been recognized as a contributing factor to the deterioration of family cohesion and interpersonal relationships,

ultimately undermining individual well-being. (Sirag, 2007, p. 10).

Youth are considered among the most frequent users of the internet, as they are more influenced by technological advancements and are more eager to explore and utilize them. As a result, when young individuals misuse the internet, it creates a societal issue that requires attention. This problem is not only due to the adoption of foreign ideas and values within our society, but also because they often waste their time on non-productive activities such as chatting or accessing inappropriate websites, instead of utilizing this time for more purposeful and focused tasks, such as academic work (Pierce, 2017, p. 18).

Despite the significant role the internet plays in various aspects of life, some individuals misuse it. Problematic internet use is characterized as a negative behavioral pattern where individuals spend excessive time on the internet, primarily for entertainment or time-wasting activities, with little to no educational or cultural benefit. This type of internet use negatively affects the individual and their social relationships (Shi et al., 2017).

The family plays a fundamental role during adolescence, a critical phase in psychological and social growth. It is imperative that parents and caregivers take an active role in overseeing adolescents' internet use, emphasizing the importance of utilizing their time productively and protecting them from harmful online activities. Encouraging meaningful social interactions and promoting self-confidence can significantly help reduce problematic internet behaviors, ultimately enhancing adolescents' overall sense of self-efficacy. (Ryding & Kaye, 2018, p. 39).

Given the interconnected nature of family dysfunction and its influence on adolescent behavior and personality, the present study seeks to examine the relationship between family dysfunction and problematic internet use among adolescents. John Bowlby believes that the emotional bonds between a child and their parents lay the foundation for the child's future social relationships, and that disturbances in these bonds lead to a lasting impairment in the child's ability

to form emotional attachments with others in the future regardless of culture, language, or religion (Bowlby, 1988, p. 29).

These attachment bonds between a child and their parents are formed through the parents' fulfillment of the child's psychological and physical needs such as providing love, attention, warmth, respect, protection, engaging in play, and setting consistent rules and boundaries. These experiences help the child feel secure and develop a positive self-image, believing that they are valuable, worthy of love and appreciation, and capable of being trusted by others and thus able to trust them in return. In contrast, a child who does not receive adequate attention from their parents and whose emotional and physical needs are not met may develop a negative self-perception, feeling unworthy, unloved, and viewing others with fear and threat, believing they cannot be trusted (Collins & Feeney, 2000, pp. 1053–1073).

### Research Problem:

The family is considered one of the most important social units and has the greatest influence on both the individual and society. As such, it has garnered significant attention from researchers, particularly in the study of its evolving structures or its structural and functional decline. However, to the best of the researcher's knowledge, there is a lack of Arabic studies that have focused on exploring family dysfunction and its relationship with problematic internet use. Therefore, the present study aims to examine the relationship between family dysfunction and problematic internet use among adolescents. In light of the above, the central research problem is framed by the following key question:

### Research Questions:

**Null Hypothesis (H0):** There is no correlation between family dysfunction and problematic internet use among adolescents.

**Alternative Hypothesis (H1):** There is a correlation between family dysfunction and problematic internet use among adolescents.

### Research Objectives:

The primary aim of this study is to:

- Investigate the relationship between family

dysfunction and -problematic internet use among adolescents.

### Significance of the Research:

- The importance of this study can be seen from both theoretical and practical perspectives, as follows:

#### A) Theoretical Significance:

- This study addresses an important issue that has not been extensively explored in the Arab or local contexts, to the best of the researcher's knowledge.
- The research contributes to the understanding of a growing social concern, thus paving the way for further studies in the field.

#### B) Practical Significance:

- The results of the study can shed light on the relationship between family dysfunction and problematic internet use among adolescents, allowing practitioners to design appropriate counseling programs and allows them to gain deeper understanding of how to use the internet in a proper and responsible way.
- The findings may also aid in developing educational and preventive programs aimed at relevant institutions.
- Furthermore, the study can inform educators, teachers, and psychologists about effective strategies for dealing with the risks associated with problematic internet use.

### Research Terminology:

#### 1) Family Functions:

Family functions refer to the roles that the family plays in supporting its members, enabling them to contribute to societal development. The family is considered a fundamental social institution with a crucial role in shaping society and fulfilling the requirements for social existence. It consists of a network of interconnected social roles and norms, regulating sexual relationships, child-rearing, and the establishment of social relationships (Al-Anzi, 2019, p. 344).

#### 2) Problematic Internet Use:

Kimberly Young (1998), conceptualized problematic internet use as a behavioral addiction involving excessive or poorly controlled preoccupations, urges, or behaviors regarding

internet use. He was an American psychologist, and one of the pioneers in defining problematic internet use as leading to psychological addiction, similar to the addiction seen with other psychoactive substances. Young's findings emerged from her clinical observations of cases that revealed unhealthy internet usage patterns (Abu Sari, 2000, p. 7).

In the current study, the researcher defines problematic internet use as a negative, habitual behavior in which individuals engage excessively with the internet, often spending prolonged periods on sites that have a strong personal appeal, without professional or academic necessity. This behavior negatively affects the individual and their social relationships.

### 3) Adolescence:

In this study, adolescence is defined as a developmental stage characterized by significant physical, physiological, cognitive, emotional, and social changes. Adolescents in the study are individuals aged between 16 and 18 years, which is the primary focus of the research.

## Theoretical framework and previous studies

### First Axis: Family Dysfunction

The family, as the foundational and essential unit in society, is one of the most important structures and systems where societal changes are reflected. Despite the various transformations that have occurred in modern societies, family life remains of paramount importance and value for every individual. The family plays a significant and primary role in raising children, imparting values, customs, and traditions. It serves as a source of morals and the first foundation for behavioral regulation. Additionally, the family plays a crucial role in achieving social and emotional stability for its members, which is evident in a healthy, cohesive family structure. The actual importance and positive impact of the family in contemporary society are represented in its ability to perform its functions towards the development and building of the individual's personality (Eid, 2017, p. 51).

#### 1) Definition of Family

The family is a social institution that arises from

the circumstances of life and is a necessity for the survival of the human species. This is achieved through the union of two beings who are interdependent, namely, man and woman. This union forms the basis of the family unit (Alaa Al-Din, 2018, p. 286).

#### 2) Functions of the Family

The family environment is the main factor in the formation of children's personalities (Ali, 2009, p. 46).

- **Educational Function:** The family is the sole institution responsible for intentional child-rearing during the early stages of childhood. No public institution can replace the family in this regard. The family also bears the greater responsibility for moral, emotional, and religious education throughout childhood and beyond (Abdelhamid, 2000, p. 169).
- **Religious Function:** The family establishes the foundations of religion and explains its principles. It is where young children learn the rules, rituals, and teachings of their faith (albeit in their initial form). The family is the first institution where children are introduced to religious teachings, ethical conduct, and the values considered virtuous and beneficial. Through the family, individuals learn the difference between virtue and vice, truth and falsehood, good and bad, and right and wrong (Kafafi, 2015, p. 89).
- **Psychological Function:** Qamar (2022, p. 180) defined the psychological functions of the family as fulfilling needs such as love, belonging, emotional security and stability, esteem, and guidance in regulating behavior. Furthermore, Musleh and Abu Dalbooh (2005, p. 86) argued that parental behaviors shape children's personalities. A socialization environment characterized by democratic values, where children's desires and needs are considered, fosters their self-actualization, contributes to their ability to think positively, and protects them from behavioral and emotional problems. Parental awareness and an open-minded approach in guiding children are vital for shaping future personalities, helping them resist societal challenges that



may threaten cultural identity, and supporting them in facing intellectual, cultural, and social obstacles with an open, democratic mindset.

- **Biological Function:** The biological function of the family refers to its role in meeting the basic biological needs of its members, such as providing food, water, reproduction, healthcare, and physical care for children. The family ensures the provision of healthy food and a safe living environment for all its members, contributing to the maintenance of a healthy body and mind (Al-Duhayan, 2018, p. 108).
- **Economic Function:** The family functions as an economic unit, where its members engage in various activities to generate income that satisfies basic needs. Despite changes in the social, scientific, and technological landscape, the family continues to ensure the provision of clothing, food, and shelter for its members. This emphasizes that the family's economic role is to provide material fulfillment through its collective work and production (Al-Anani, 2000, p. 146).
- **Modern Functions of the Family:** The modern functions of the family have evolved in response to contemporary challenges, particularly in the age of technology. These challenges have both positive and negative impacts on family life, influencing its roles and dynamics.

### 3) Dysfunction in Family Roles

Modern technology, driven by media and communication channels, has brought about significant changes to the family unit in general. This transformation is not unique to a single society, as many countries and communities around the world are witnessing similar shifts. These changes have altered both the structural makeup and the educational approach of the family. Moreover, family relationships are undergoing rapid transformations, which have directly impacted the educational process (Chukwurah, 2014, p. 95).

Among the key transformations and dysfunctions within family relationships, in light of the spread of the internet and modern technology, the following can be identified:

- Decline in parental control over the behavior of their children.
- Increased freedom in personal relationships.
- Diminished role of the family as the primary source of knowledge and information for children.
- The dominance of individualistic tendencies in family relationships.

### Second Axis: Problematic Internet Use

The internet is considered a technological revolution that has imposed itself on a global scale over the past few years, becoming a daily mode of interaction and a platform for the exchange of knowledge among people worldwide. It has become one of the defining features of modern times, with some even referring to it as the "Age of the Internet" or the "Information Revolution," due to the profound effects it has had and the radical changes it has brought to communication methods in various aspects of life. Additionally, it has resulted in significant transformations in most traditional models and patterns across different levels.

#### Negative Aspects of the Internet:

There are several negative aspects of the internet, which have been highlighted by Ali (2012, p. 482) as follows:

- 1) Hacking and intrusion into websites, controlling them, and causing disruptions.
- 2) Individuals using the internet and certain websites, exposing them to the risk of harassment.
- 3) Extended periods of sitting in front of the computer screen led to health issues, such as promoting weight gain and causing visual strain.
- 4) Excessive internet use reduces the time individuals spend with family and engaging in social activities.

Andreessen (2015, p. 17) defined problematic internet use as a compulsive behavior, characterized by excessive and persistent engagement driven by a strong urge to use social networking platforms on the internet. This excessive use consumes significant amounts of time and effort, which in turn undermines and disrupts the performance of other social activities

such as studying and fulfilling other responsibilities.

Al-Fishawi (2024, p. 69) summarized the manifestations resulting from problematic internet use in the following key points:

- 1) Social isolation and the subsequent problems that may affect psychological and social adjustment, ultimately influencing the individual's ability to adapt to the educational environment and their academic performance.
- 2) Disregard for those around them, which leads to neglecting social relationships, isolating oneself from family and friends, decreased academic performance, increased school absenteeism, and lowered self-esteem. As a result, they may seek refuge in the internet, developing an idealized self-concept.
- 3) Neglect of academic responsibilities in favor of spending extended periods on the internet.
- 4) Preference for online communication over face-to-face interactions.
- 5) Sleeping less than five hours daily and the inability to manage time after engaging with the internet.

The results of Nassef's (2014) study highlighted the negative impact of using digital products, particularly the internet, on social relationships in general, and family relationships in particular. The study by Cynthia et al. (2016) revealed the relationship between parenting styles, family functions, and internet addiction in a sample of adolescents in Hong Kong. El-Gazzar (2017) pointed out the educational role of the family in ensuring safe internet usage for their children. Suleiman (2017) emphasized the family's role in protecting children from internet dangers. Al-Qarni (2019) discussed the role of Saudi families in protecting their children from the risks of the internet.

Based on the theoretical framework and the findings from previous studies, the following hypothesis for the research was proposed:

- 1) There is a statistically significant correlational relationship between family dysfunction and problematic internet use among a sample of adolescents.

### Research Method:

The researcher employed a descriptive

correlational approach to examine the relationship between family dysfunction and problematic internet use among adolescents.

### Sample of the Study:

The study sample consisted of the following:

#### 1. Sample for validating the psychometric properties:

The exploratory sample consisted of 300 students (168 males, 132 females) from secondary schools in Port Said Governorate. The average age of the sample was 17.54 years, with a standard deviation of 1.07. This sample was used to validate the psychometric properties of the research tools.

#### 2. Main sample (Participants):

The sample was selected using a convenience sampling method and included 120 students (75 males, 45 females) from secondary schools, aged between 16 and 18 years. These students were selected from various schools in Port Said Governorate, including Elm El-Din Secondary School for Girls and Abdel-Rahman Shokry Secondary School for Boys. The average age of the sample was 17.63 years, with a standard deviation of 1.12. It was ensured that participants had been using the internet for at least 4 hours daily for a continuous period of 3 months. Students with known psychological or developmental disorders that could affect the test results were excluded from the sample.

These schools were selected due to their high student density and consistent attendance.

### Research Tools:

- Family Dysfunction Scale (Developed by the Researcher)
- Problematic Internet Use Scale (Developed by the Researcher)

The following is a detailed description of these tools:

#### 1) Family Dysfunction Scale (Developed by the Researcher)

Family dysfunction is defined as the family's ability to meet the physical, psychological, emotional, and moral needs of its members,

thereby contributing to the formation of a healthy and integrated community

**2) Purpose of the Scale:**

To assess the level of family dysfunction among adolescents.

**Steps for Developing and Constructing the Scale:**

The researcher reviewed several existing published scales related to family dysfunction as perceived specifically by adolescents. The researcher examined the following scales:

**Table 1: Scales Reviewed by the Researcher for Developing the Family Dysfunction Scale**

No	Scale	Scale developer	Year
1	Family Functional Performance	Sanaa Dakhil	2017
2	Family Functional Performance	Ahmed Azzazy	2017
3	Perceived parental treatment style	Enas Radi	2022
4	Family climate	Fatima Jaber Saeed	2022
5	Perceived parental treatment style	Janan Saad Al-Hajri	2023

The researcher identified the dimensions of the scale based on theoretical frameworks that addressed family dysfunction. The Family Dysfunction Scale consists of five dimensions, each containing a set of statements. The total number of statements in the preliminary version of the scale is 48, distributed across the five dimensions as follows:

- First Dimension – **Biological Function:** 9 statements
- Second Dimension – **Psychological Function:** 10 statements
- Third Dimension – **Social Function:** 9 statements
- Fourth Dimension – **Economic Function:** 10 statements
- Fifth Dimension – **Educational and Cultural Function:** 10 statements

**Psychometric Properties of the Family**

**Dysfunction Scale**

**1. Validity**

**a) Indicators of Validity: Exploratory Factor Analysis of the Family Dysfunction Scale Items**

The objective of this step was to identify the factorial structure of the scale and determine the distinct factors within it. The scale was administered to a sample of 300 adolescents at the secondary school level. Exploratory factor analysis was conducted on the 48 items of the scale using the Principal Components (PC) method, with the Varimax orthogonal rotation. The Kaiser criterion was applied (i.e., an eigenvalue of at least 1). The analysis resulted in the identification of five factors with eigenvalues of 2.04 or higher, explaining 29.96% of the total variance of the scale. The results of the factor analysis are presented in the following table:

**Table 2: Factor loadings of family Dysfunction items after rotation using exploratory factor analysis**

Factor Item	First	Second	Third	Factor Item	Fourth	Fifth
1	0.68			29	0.57	
2	0.64			30	0.55	
3	0.64			31	0.53	
4	0.63			32	0.49	
5	0.69			33	0.47	
6	0.57			34	0.43	
7	0.47			35	0.35	
8	0.55			36	0.33	
9	0.52			37	0.51	
10		0.47		38	0.68	
11		0.68		39		0.65
12		0.45		40		0.63
13		0.61		41		0.61
14		0.59		42		0.58
15		0.63		43		0.56
16		0.72		44		0.53
17		0.71		45		0.71
18		0.64		46		0.59
19		0.54		47		0.64
20			0.45	48		0.55
21			0.44			
22			0.44			
23			0.39			
24			0.67			
25			0.51			
26			0.33			
27			0.65			
28			0.58			
<b>Eigenvalue</b>	<b>9.34</b>	<b>3.5</b>	<b>2.18</b>	<b>Eigenvalue</b>	<b>2.04</b>	<b>3.2</b>
<b>% Of variance Explained for each factor</b>	<b>10.77</b>	<b>7.03</b>	<b>6.47</b>	<b>% of variance Explained for each factor</b>	<b>5.67</b>	<b>6.92</b>
<b>The total explained variance of the scale</b>	<b>29.96</b>					

It can be observed from [Table 2](#) that five factors emerged, as follows:

#### **Factor One: Biological Function**

Comprised of 9 items with loadings from 0.47 to 0.69, this factor accounted for 10.77% of the variance (Eigenvalue = 9.34).

#### **Factor Two: Psychological Function**

Included 10 items with loadings between 0.47

and 0.71, explaining 7.03% of the variance (Eigenvalue = 3.5).

#### **Factor Three: Social Function**

Consisted of 9 items, loadings ranging from 0.33 to 0.67, accounting for 6.47% of the variance (Eigenvalue = 2.18).

#### **Factor Four: Economic Function**

Encompassed 10 items with loadings between



0.33 and 0.68, contributing 5.67% of the variance (Eigenvalue = 2.04).

**Factor Five: Educational and Cultural Function**

Contained 7 items with loadings from 0.53 to 0.71, representing 6.92% of the variance (Eigenvalue = 3.2).

**2. Reliability of the Family Dysfunction Scale**

The researcher calculated the reliability of the scale using two methods: Cronbach’s Alpha and test-retest with a three-week interval. The following table shows the reliability coefficients for the subscales and the entire scale:

**Table 3:** Cronbach’s alpha and test-retest values

Dimension	Cronbach’s Alpha	Test-Retest
Biological function	0.71	0.79
Psychological	0.74	0.76
Social function	0.85	0.87
Economic function	0.71	75,.
Educational function and cultural function	0.66	0.69
Total scale	0.83	0.87

As shown in Table 3, all the reliability coefficients are high, confirming the stability of the Family Dysfunction Scale for secondary school adolescents. Both the Cronbach’s alpha and test-retest values are elevated and statistically acceptable, indicating that the instrument demonstrates high reliability and is scientifically valid for use.

**Thirdly: Internal Consistency:**

Internal consistency was calculated by computing the Pearson correlation coefficient between each item within each dimension and the total score of its respective dimension. These calculations were based on the study sample, and the results can be illustrated in the following table:

**Table 4**

Biological function		Psychological function		Social function		Economic function		Educational function and cultural function	
Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
1	0.76	1	0.74	1	0.68	1	0,48	1	0,70
2	0.69	2	0.48	2	0.64	2	0.53	2	0.56
3	0.61	3	0.39	3	0.68	3	0.61	3	0.66
4	0.54	4	0.61	4	0.70	4	0.54	4	0.49
5	0.59	5	0.61	5	0.56	5	0.59	5	0.66
6	0.70	6	0.52	6	0.47	6	0.70	6	0.68
7	0.71	7	0.49	7	0.70	7	0.71	7	0.47
8	0.66	8	0.61	8	0.49	8	0.64	8	0.70
9	0.69	9	0.61	9	0.51	9	0.69	9	0.49
		10	0.56			10	0.71	10	0.66

It is evident from Table 4 that all the items of the subscales were statistically significant at the 0.01 level, which confirms the internal consistency of the scale. Additionally, the

correlations between the subscales and the total score of the scale were calculated, and the results are presented in the following table:

**Table 5: internal consistency of the family Dysfunction scale (N=300)**

Dimension	Correlation Coefficient
Biological function	0.66
Psychological function	0.72
Social function	0.69
Economic function	0.71
Educational function and cultural function	0.68
Total scale	0.69

The results shown in Table 5 indicate that the correlation coefficients are both statistically significant and high, reflecting strong internal consistency among the dimensions of the Family Dysfunction Scale for secondary school adolescents.

### 1) Problematic Internet Use Scale (Developed by the Researcher)

#### 1. Purpose of the Scale:

To assess the level of problematic internet use among adolescents.

#### 2. Steps for Developing and Constructing the Scale:

The researcher reviewed several available published scales related to problematic internet use, particularly among adolescents. The researcher examined the following scales:

**Table 6: Scales Reviewed by the Researcher for Developing the Problematic Internet Use Scale**

No.	Scale	Scale developer	Year
1	Smartphone Misus	Ahmed El-Husseini Hela	2018
2	Problematic Internet Us	Mona Badr El-Junaid	2019
3	Problematic Internet Us	Samia Bakry Abdel-At	2019
4	Negative Effects of Internet Us	Intisar Ahmed Oud	2021

The researcher identified the dimensions of the scale through the theoretical frameworks addressing problematic internet use. The scale for problematic internet use consists of six dimensions, each containing a set of statements. The initial version of the scale included 52 statements, distributed across these six dimensions.

### Psychometric Properties of the Problematic Internet Use Scale.

#### First: Validity

#### Evidence of Factorial Validity Based on the Exploratory Factor Analysis of the Problematic Internet Use Scale

To assess the factorial validity of the scale and identify its underlying structure, the Problematic Internet Use Scale was administered to a sample of 300 secondary school adolescents. An exploratory factor analysis (EFA) was performed on the 52 items using the Principal Components method with Varimax orthogonal rotation. The Kaiser criterion (Eigenvalue  $\geq 1$ ) was applied to determine the number of factors to extract. The analysis yielded six distinct factors with Eigenvalues equal to or exceeding 2.36, collectively accounting for 42.98% of the total variance. The results of the factor analysis are presented in the following table:

**Table 7**

<b>Factor Item</b>	<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Factor Item</b>	<b>Fourth</b>	<b>fifth</b>	<b>Sixth</b>
1	0.71			26	0.67		
2	0.68			27	0.46		
3	0.45			28	0.63		
4	0.58			29	0.69		
5	0.58			30	0.59		
6	0.56			31	0.64		
7	0.63			32	0.69		
8	0.54			33	0.49		
9		0.69		34		0.58	
10		0.63		35		0.71	
11		0.71		36		0.64	
12		0.53		37		0.49	
13		0.49		38		0.62	
14		0.61		39		0.48	
15		0.48		40		0.46	
16			0.46	41		0.39	
17			0.57	42		0.58	
18			0.63	43		0.71	
19		0.68	0.69	44			0.51
20		0.53	0.68	45			0.62
21		0.52	0.55	46			0.41
22		0.51	0.63	47			0.55
23		0.57	0.71	48			0.63
24			0.59	49			0.71
25			0.54	50			0.49
				51			0.62
				52			0.56
<b>Eigenvalue</b>	<b>9.71</b>	<b>3.79</b>	<b>3.12</b>		<b>2.43</b>	<b>2.58</b>	<b>3.52</b>
<b>%of variance explained for each factor</b>	<b>11.23</b>	<b>9.77</b>	<b>7.28</b>		<b>6.54</b>	<b>6.71</b>	<b>8.41</b>
<b>Total variance explained by the scale</b>	<b>42.98</b>						

It is evident from [Table 7](#) that six factors emerged:

**Factor 1: Compulsive Internet Engagement**

This factor comprises eight items with factor loadings ranging from 0.45 to 0.71. It accounts for 11.23% of the total variance, with an eigenvalue of 9.71. The items reflect behaviors indicative of compulsive and uncontrollable internet use.

**Factor 2: Psychological Manifestations**

Encompassing seven items, this factor has loadings between 0.48 and 0.68. It explains 9.77% of the variance, with an eigenvalue of 3.79. The items pertain to emotional and psychological responses associated with internet use, such as mood alterations and anxiety.

### Factor 3: Behavioral Manifestations

This factor includes ten items with loadings from 0.46 to 0.71, accounting for 7.28% of the variance and an eigenvalue of 3.12. The items capture observable behaviors linked to problematic internet use, including neglect of responsibilities and changes in daily routines.

### Factor 4: Cognitive and Academic Manifestations

Comprising eight items with loadings between 0.46 and 0.69, this factor explains 6.54% of the variance, with an eigenvalue of 2.43. The items reflect cognitive disturbances and academic challenges related to excessive internet use.

### Factor 5: Health-Related Manifestations

This factor consists of ten items with loadings ranging from 0.39 to 0.71. It accounts for 6.71% of the variance, with an eigenvalue of 2.58. The items address physical health issues and sleep

disturbances associated with prolonged internet use.

### Factor 6: Social and Familial Manifestations

Encompassing nine items with loadings between 0.41 and 0.71, this factor explains 8.41% of the variance, with an eigenvalue of 3.52. The items pertain to the impact of internet use on social interactions and family relationships. Collectively, these six factors account for 42.98% of the total variance, indicating a multifaceted structure of problematic internet use among adolescents.

## 2. Reliability of the Problematic Internet Use Scale

The researcher assessed the reliability of the scale using Cronbach's alpha coefficient and the test-retest method with a three-week interval between administrations. The reliability coefficients for each dimension and the overall scale are presented in [Table 8](#).

**Table 8: Reliability Coefficients of the Problematic Internet Use Scale Using Cronbach's Alpha and Test-Retest Methods**

Dimension	Cronbach's Alpha	Test-Retest Reliability
Compulsive Internet Immersion	0.82	0.87
Psychological Symptoms	0.77	0.81
Behavioral Symptom	0.63	0.85
Cognitive Academic Symptom	0.66	0.74
Health-Related Symptom	0.71	0.80
Social and Family Symptom	0.6	0.81
<b>Total Scale</b>	0.71	0.82

**Note: All coefficients are statistically significant at the 0.01 level.**

The results in [Table 8](#) indicate that all reliability coefficients are high, confirming the stability and consistency of the Problematic Internet Use Scale for secondary school adolescents. Both Cronbach's alpha and test-retest values are statistically acceptable, demonstrating that the instrument is reliable and suitable for academic use.

## 3. Internal Consistency

To assess internal consistency, Pearson's correlation coefficients were calculated between each item within the subscales and the corresponding total subscale score. These correlations were derived from responses collected from the study sample and are presented in the table below:

**Table 9: Internal Consistency of the Problematic Internet Use Scale Items (N = 300)**

Compulsive internet immersion		Psychological manifestations		Behavioral manifestations		Cognitive and academic manifestations		Health Manifestations		Social and familial manifestations	
Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
1	0.62	1	0.60	1	0.67	1	0.65	1	0.68	1	0.49
2	0.57	2	0.71	2	0.78	2	0.78	2	0.52	2	0.62
3	0.50	3	0.71	3	0.73	3	0.75	3	0.74	3	0.55
4	0.71	4	0.70	4	0.69	4	0.74	4	0.75	4	0.53
5	0.71	5	0.46	5	0.44	5	0.52	5	0.52	5	0.63
6	0.76	6	0.48	6	0.49	6	0.58	6	0.63	6	0.57
7	0.69	7	0.51	7	0.45	7	0.68	7	0.65	7	0.61
8	0.67			8	0.54	8	0.70	8	0.72	8	0.52
				9	0.51			9	0.63	9	0.54
				10	0.52			10	0.43		

**\*Note: All correlations are statistically significant at the 0.01 level.**

As shown in Table 9, all items of the subscales demonstrated significant correlations at the 0.01 level, confirming the internal consistency of the scale. Furthermore, correlations between the

subscales and the total score of the scale were also calculated, and the results are summarized in the following table

**Table 10: Internal Consistency of the Problematic Internet Use Scale (N = 300)**

Dimension	Correlation Coefficient (r)
Compulsive Internet Immersion	0.86
Psychological manifestations	0.81
Behavioral manifestations	0.87
Cognitive and Academic manifestations	0.82
Health-Related manifestations	0.89
Social and Family manifestations	0.75
Total Scale	0.81

**Note: All coefficients are statistically significant at the 0.01 level.**

It is evident from Table 10 that the dimensions are consistent with the overall scale, with correlation coefficients ranging from 0.75 to 0.89, all of which are statistically significant at the 0.01 level. This indicates that there is consistency all dimensions of the scale, and it is generally valid in measuring what it was intended to measure.

**Statistical Methods Used in the Study:**

In the present study, the researcher employed several statistical methods appropriate for the research variables. These methods were implemented using the Statistical Package for Social Sciences (SPSS) to analyze the data and derive the results. The following statistical methods were utilized

- Pearson Correlation Coefficient
- Exploratory Factor Analysis
- Cronbach's Alpha Coefficient for Reliability Calculation
- Independent Samples t-test



### Presentation and Discussion of the First Hypothesis Results:

The first hypothesis states that "There is a statistically significant correlation between family dysfunctions and problematic internet use among a sample of secondary school adolescents."

To verify the validity of this hypothesis, the researcher calculated Pearson correlation coefficients to determine the relationship between the scores of family dysfunction and problematic internet use. The results obtained by the researcher are presented in the following table:

**Table 11: the correlation coefficients between the dimensions of family dysfunctions and problematic internet use among a sample of secondary school adolescents (N = 120).**

Compulsive Internet Use / Family Function Deficits	Compulsive Internet immersion	Psychological manifestations	Behavioral manifestations	Cognitive and Academic manifestations	Health manifestations	Social and Family manifestations	Total score
Biological Function	0.85	0.81	0.77	0.79	0.79	0.85	0.86
Psychological Function	0.86	0.78	0.86	0.85	0.86	0.79	0.78
Social Function	0.84	0.82	0.74	0.76	0.75	0.84	0.85
Economic function	0.79	0.77	0.85	0.76	0.81	0.81	0.81
Educational and cultural function	0.86	0.73	0.79	0.83	0.86	0.85	0.86
Total score	0.86	0.82	0.81	0.81	0.83	0.86	0.87

Table 11 illustrates the following findings: There is a significant positive correlation between the dimensions of family Dysfunctions and problematic internet use among a sample of secondary school adolescents. All correlations were significant at the 0.01 level, indicating that as family Dysfunctions (biological, psychological, social, economic, and educational-cultural functions) increase, there is a corresponding increase in problematic internet use among adolescents. This supports the first hypothesis, which suggested a statistically significant positive relationship between the dimensions of family Dysfunctions and problematic internet use among secondary school adolescents.

The researcher interprets this result by emphasizing that the family is the fundamental building block of society, serving as one of its most important units and systems, where societal changes are reflected. Despite the numerous transformations in contemporary societies, family

life remains of immense importance and value for every individual. The family plays a crucial role in raising children, instilling values, traditions, and social norms, and is the primary source of ethics and behavioral regulation. It also plays an essential role in ensuring emotional and social stability for family members, which is particularly found in a cohesive and well-functioning family. In modern society, the family's role and significance are exemplified in its capacity to contribute to development and formation of the individual's personality.

The importance of the family in the lives of its members lies in the functions it performs, whether biological, educational, economic, social, or psychological. The more successful the family is in fulfilling its responsibilities in raising, nurturing, and preparing children in the right way, the greater the positive impact on society as a whole. Despite the differences in social customs and traditions between various human societies and the diversity of perspectives regarding the

family and its significance, the functions it performs are strikingly similar across cultures. Family life typically provides an environment that ensures the fulfillment of essential needs, such as food, shelter, wealth generation and preservation, as well as the provision of care and other non-material resources. Thus, the functions of the family provoke similar behaviors and practices worldwide.

The results of the first hypothesis align with the findings of several studies, including the study by Bolson (2015), and the study by Cynthia et al. (2016), which indicated a relationship between parenting styles, family functions, and internet addiction among adolescents in Hong Kong. Additionally, the study by Lee & Kim (2016) found a relationship between family functioning and internet usage among school-aged children. Similarly, the research by El-Gazar (2017) highlighted the educational role of the family in ensuring safe internet usage for children. The study by Rivera et al. (2021) revealed a connection between family roles and internet misuse, while Hidayati & Oktafianti (2021) demonstrated a link between family performance and cyberbullying behaviors among adolescents. The research by Fan (2022) showed the direct impact of family functions on psychological distress, with social support and internet addiction as mediating factors among Chinese children. Furthermore, the study by Qabouri (2024) emphasized the family's role in protecting children from the dangers of electronic games.

### **Recommendations and pedagogical implementations**

Based on the results of the current research, the researcher suggests the following recommendations to support adolescents, particularly secondary school students:

- Focus on secondary school students, particularly those who exhibit excessive Internet usage.
- Organize individual and group sessions within schools to discuss the reasons behind the excessive and improper use of the Internet.
- Arrange meetings with parents to address proper parenting methods, offer family

support, and ensure the emotional warmth and comfort of all family members.

- Schools should collaborate with parents by providing seminars and parent councils to raise awareness about the risks of Internet misuse and how to safeguard children. The exchange of information between parents and schools can enhance the effectiveness of efforts to protect children.
- Emphasize the importance of counseling programs offered by psychological counseling centers and media outlets, which provide valuable knowledge, experiences, and advice targeting families and parents. These programs should aim to raise awareness about improving the family environment, guiding families on how to care for students, especially during adolescence.
- Monitor and supervise children's internet use by placing computers in visible areas and ensuring that they do not use mobile phones or computers in isolation, preventing access to inappropriate websites.
- Regulating adolescents' internet usage in terms of time duration is essential. Families should ensure that internet use does not exceed one to two hours per day, thereby preventing it from encroaching on time allocated for other essential personal, academic, familial, and life responsibilities. Adolescents have various needs that must be met beyond online engagement. Therefore, it is crucial that families assist and guide their children in managing their daily schedules, helping them prioritize and allocate time in accordance with the relative importance of their individual needs.
- Parents should set an example for their children by regulating their own Internet use. Designating specific times for meals, family discussions, and social interactions will help children develop a balanced routine.

### **Proposed Future Research Directions**

- 1- An investigation into the relationship between family disintegration and excessive engagement with electronic games among adolescents.
- 2- A study of the association between domestic

violence, psychological fragility, and internet addiction among secondary school students.

- 3- An analysis of the correlation between problematic internet use, mind-wandering, and social adjustment in adolescent populations.
- 4- An examination of the impact of family and school climate on problematic internet use among preparatory school students.
- 5- A Comprehensive Analysis of the Interrelationship Between Parenting Styles, Psychological Distress, and Problematic Internet Use Among Adolescents.

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