

Maladaptive Cognitive Schemas and Social Media Addiction.

A Field Study on a Sample of University Students at Batna 1 and Sétif 2 –Algeria

المخططات المعرفية غير التكيفية وإدمان وسائل التواصل الاجتماعي،

دراسة ميدانية على عينة من طلبة جامعتي باتنة 1 وسطيف 2_ الجزائر

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Abstract:

This study aims to investigate the relationship between maladaptive cognitive schemas and addiction to social media. The researcher used a descriptive method, and the study included 125 university students (91 females, 34 males), selected through incidental sampling (non-random incidental sample). The Social Media Addiction Scale by researchers Tichabet & Anoofli (2021), consisting of 45 items across five dimensions, was used to achieve the objective. Additionally, the Short Form of the Young Schema Questionnaire (SF-YSQ) by Jeffrey Young (Young et al, 2003) was utilised. Statistical analysis was conducted using the SPSS program.

The results indicated that the "domain of disconnection and rejection" is the schema domain most associated with social media addiction behavior, followed by the domain of impaired autonomy and performance, then the domain of excessive vigilance and inhibition, then the domain of insufficient self-control, and finally the domain of other-directedness. The study also pointed to a strong positive relationship between schema activation and social media addiction. The schemas of entitlement/grandiosity and unrelenting standards/hypercriticalness ranked first in the hierarchy of schemas. Additionally, there were no statistically significant differences on the social media addiction scale among university students based on age.

Keywords: Maladaptive Cognitive Schemas; Social Media Addiction; University students

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ملخص :

تهدف هذه الدراسة إلى استقصاء العلاقة بين المخططات المعرفية غير التكيفية وإدمان وسائل التواصل الاجتماعي. اتبع الباحث المنهج الوصفي، وشملت الدراسة 125 طالباً جامعياً (منهم 91 إناث و 34 ذكور)، تم اختيارهم عن طريق العينة العرضية (عينة عرضية غير عشوائية). ولتحقيق الهدف، تم استخدام مقياس إدمان وسائل التواصل الاجتماعي للباحثين تشعبت النوفلي (2021)، المكون من 45 بنداً موزعة على خمسة أبعاد. بالإضافة إلى ذلك، تم استخدام النسخة المختصرة من استبيان يونغ للمخططات المعرفية (SF-YSQ) لجيفري يونغ (يونغ وآخرون، 2003). تم إجراء التحليل الإحصائي باستخدام برنامج SPSS.

أشارت النتائج إلى أن " مجال الانفصال والرفض " هو مجال المخططات الأكثر ارتباطاً بسلوك إدمان وسائل التواصل الاجتماعي، يليه مجال ضعف الاستقلالية والأداء، ثم مجال اليقظة المفرطة والكبت، ثم مجال ضعف ضبط النفس، وأخيراً مجال التوجه نحو الآخر. كما أشارت الدراسة إلى وجود علاقة إيجابية قوية بين تفعيل المخططات وإدمان وسائل التواصل الاجتماعي. احتلت مخططات الاستحقاق/العظمة والمعايير الصارمة/النقد المفرط المرتبة الأولى في هرمية المخططات. بالإضافة إلى ذلك، لم توجد فروق ذات دلالة إحصائية على مقياس إدمان وسائل التواصل الاجتماعي لدى طلبة الجامعة تبعاً لمتغير العمر.

الكلمات المفتاحية : المخططات المعرفية غير التكيفية؛ إدمان وسائل التواصل الاجتماعي؛ طلبة الجامعة

Introduction:

Human communication has undergone tremendous development since the inception of the Internet in 1969 as a project for the Advanced Research Projects Agency, affiliated with the US Department of Defense, aimed at protecting communications. It subsequently divided and evolved in the 1980s (Rajaraman, 2022). Today, the Internet has become a necessity of life, generating new forms of communication and forming the bedrock of the digital revolution. The Internet is widely used for communication (55.2%) and information seeking (60%), with an average global daily usage nearing 7 hours, accessed via mobile phones by 92.1% of users (Data Reports, 2022). In North Africa, 56% of the population uses social media. Specifically in Algeria, more than 13 million people browse the Internet daily (Emar Research & Consultancy; Algeria Press Service), with Internet penetration reaching 72.9% and social media user penetration at 54.1% at the beginning of 2024, a notable increase from the previous year (Data Reports, 2024). Estimates suggest that a quarter of users in Algeria may reach the threshold of addiction (more than 38 hours per week) (Elmaoudi, 2023). This intensive use, exacerbated during the COVID-19 pandemic (Ali Moradi et al., 2022) has led to growing global concern about

"Internet Addiction," recognized by the American Psychiatric Association (APA) as a psychological disorder characterized by a compulsive need to use (Hamouda, 2015). Global prevalence estimates for social media addiction range from 0% to 82%, with a tendency to be higher in Asia, the Middle East, and Africa compared to North America and Europe (Cheng et al., 2021). Increased rates of behavioral addictions (internet, smartphones, gaming, social networking) have been linked to heightened mental health risks during the pandemic (Ali Moradi et al., 2022).

Research has focused on understanding the neurobiological basis of behavioral internet addiction. Neuroimaging and neurophysiological studies have revealed distinct structural and functional brain characteristics in addicts, associated with impaired inhibitory control (impulsivity), and difficulties in decision-making and working memory. Disturbances in the metabolism of important neurotransmitters like dopamine and serotonin have also been observed, affecting reward processing and executive functions (Tereshchenko, 2023). Increased sensitivity to social media-related rewards, poor emotion regulation, and impaired inhibitory control are associated with prefrontal cortex pathways and changes in other brain structures in individuals with Problematic Social Media Use (PUSM) (Morris, Morita, & Potenza, 2023). In addition to biological factors, it is believed that an integrative model combining genetic, psychological, social, and cultural factors best explains addiction (Tereshchenko, 2023). Here, "Early Maladaptive Schemas" (EMS) emerge – ingrained cognitive patterns originating in childhood from negative experiences that continue to influence an individual's perception of themselves, the world, and their interactions (Young et al., as cited in Mubarak et al., 2022; Dahmani et al., 2016). Young classified these schemas into five major domains (e.g., Disconnection and Rejection, Impaired Autonomy). Studies indicate a relationship between the activation of these schemas and addictive behaviors (Claudino-Vieira et al., 2023), and a link between specific schemas (especially in the domain of Impaired Autonomy and Performance) and internet addiction (Laazazga et al., 2021). Instruments for measuring these schemas have been developed and have shown good validity and reliability (Anjali Jain, 2023).

This study holds scientific and practical significance for understanding the relationship between maladaptive cognitive schemas and social media addiction. Understanding how these early, unhealthy thought patterns might drive individuals to use social media as an escape mechanism from negative thoughts and feelings provides valuable insights into psychopathology. The study aims to

deepen the understanding of how these schemas influence social media to use behavior, potentially contributing to the development of more effective therapeutic interventions to improve mental health and well-being in the technological era.

Based on the foregoing, the main research question of this study revolves around:

Is there a relationship between maladaptive cognitive schemas and social media addiction?

2. Methodology:

To investigate the phenomenon of social media addiction and determine its relationship with maladaptive cognitive schemas, a descriptive methodology was employed. This approach was chosen considering the characteristics of the sample, the nature of the variables, and the research objectives. The study aims to explore the relationship between the two variables without intervening in the studied phenomena, making this methodology suitable for understanding the problem addressed in our research.

2.1. Scope of the Study:

- Human Scope: The study is confined to a sample of university students from the University of Batna 1 and the University of Mohamed Lamine Debaghine Sétif 2.
- Spatial Scope: An electronic questionnaire was distributed at the University of Batna 1 (Faculty of Humanities and Social Sciences, Department of Psychology, Educational Sciences, and Speech Therapy) via the administration's page [or official departmental channels]. The electronic questionnaire was also distributed similarly at the University of Mohamed Lamine Debaghine Sétif 2 (Faculty of Humanities and Social Sciences, Department of Psychology, Educational Sciences, and Speech Therapy) via its administration's page. Furthermore, the electronic questionnaire was disseminated through a targeted advertisement on Facebook aimed at university students across different ages and fields of study.
- Temporal Scope: The study was conducted over three phases:
 - _ Literature review and scientific material collection phase.
 - _ Fieldwork (data collection) phase.
 - _ Results discussion and interpretation phase.

2. 2. Study Sample:

The current study sample consisted of 125 university students recruited from three sources: the University of Batna 1, the University of Mohamed Lamine Debaghine Sétif 2, and a targeted Facebook advertisement. Participants were selected using a non-random sampling method, specifically convenience sampling (also known as availability or accidental sampling). In this type of sampling, individuals from the target population are free to choose whether to participate. There is no prior determination of who will be included; instead, sample members are selected from the first group the researcher encounters who agree to participate.

Convenience sampling involves drawing research units from the target population based on ease of access—that is, using cases that are available or convenient for the research. Individuals easily accessible to the researcher in schools, universities, clinics, workplaces, etc., are examples of available or convenience samples drawn accidentally.

In this study, the electronic questionnaire was distributed in private groups for university students on the social networking site Facebook, as well as at the University of Batna 1 and the University of Mohamed Lamine Debaghine Sétif 2. The resulting sample was composed as follows:

Table 1: Distribution of the Sample by Gender

Total Sample Size	Males	Females
125	34	91

Table 2: Distribution of the Sample by Age

Age Range	Total
20-30 years	67
30-40 years	25
< 20 years	16
40-50 years	15
> 50 years	2

2.3. Study Tools:

2.3.1. Description of the Scales:

An online questionnaire was designed, directly accessible via this link: (<https://docs.google.com/forms/d/e/1FAIpQLSdhlUz8fS3tD2rxhW-pFQ1jcmLKcYenoBcnpYqmsOw4ES9Q9w/viewform>). It contains two scales: the first is the Social Media Addiction Scale by the researcher Tachaabet Yasmine (2021), and the second is the Young Schema Questionnaire - Short Form (YSQ-SF) by Jeffrey Young. The YSQ-SF is an assessment tool used to identify Early Maladaptive Schemes, representing maladaptive patterns through

which an individual perceives and interacts with themselves and the external world.

2.3.2. Social Media Addiction Scale:

The researchers Tachaabet Yasmine and Anoofli (2021) developed a preliminary version of this measurement tool to achieve the study's objectives and answer its questions. It uses a five-point Likert scale (Always, Often, Sometimes, Rarely, Never) with scores assigned (5, 4, 3, 2, 1, respectively) [Note: Assuming standard Likert scoring where 'Always' corresponds to the highest score (5) for addiction items]. The minimum possible score on the scale is 45, and the maximum is 225. The researcher based the construction of the tool on the methodology described by Maurice Angers (2004), by breaking down the concept into dimensions and then subdividing each dimension into its items. The instrument consisted of five dimensions, with 45 items distributed equally across the dimensions (9 items per dimension). The dimensions are: Excessive Use, Negative Impact, Withdrawal, Mood Modification, and Salience. The scale was developed drawing upon previous studies on internet addiction.

- Levels (Interpretation Thresholds) of the Social Media Addiction Scale are as follows:

_Low addiction: Scores below 90.

_ Moderate addiction: Scores from 90 to 134.

_ High addiction: Scores from 135 to 179.

_ Very high addiction: Scores from 180 to 225.

Table3: Distribution of the sample by level of addiction on the Social Media Addiction Scale.

Addiction Level	Frequency (N)
High addiction	23
Very high addiction	6
Low addiction	35
Moderate addiction	61
Total	125

2.4. Young Schema Questionnaire - Short Form (YSQ-SF):

2.4.1. Scale Description :

The Young Schema Questionnaire - Short Form (YSQ-SF), which measures Early Maladaptive Schemas (EMS), was used in this study. It is a scale developed by Young; the original long form contained 205 items. The short form (YSQ-SF) includes 75 items assessing 15 specific schemas. The scale enables the assessment of these Early Maladaptive Schemas and the significance

of each. This study utilized the version adapted for the Algerian context by the researchers Ait Medjber Ouakli and Aissat.

- The 15 schemas included in the scale are:

- _ Items 1-5: Emotional Deprivation
- _ Items 6-10: Abandonment / Instability
- _ Items 11-15: Mistrust / Abuse
- _ Items 16-20: Social Isolation / Alienation
- _ Items 21-25: Defectiveness / Shame
- _ Items 26-30: Failure
- _ Items 31-35: Dependence / Incompetence
- _ Items 36-40: Vulnerability to Harm or Illness
- _ Items 41-45: Enmeshment / Undeveloped Self
- _ Items 46-50: Subjugation
- _ Items 51-55: Self-Sacrifice
- _ Items 56-60: Emotional Inhibition
- _ Items 61-65: Unrelenting Standards / Hypercriticalness
- _ Items 66-70: Entitlement / Grandiosity
- _ Items 71-75: Insufficient Self-Control / Self-Discipline

The scale measuring these 15 schemas was administered. It is noted that the full theoretical model includes 18 schemas. The three schemas not measured by this 75-item version are:

- _ Punitiveness schema.
- _ Negativity / Pessimism schema.
- _ Approval-Seeking / Recognition-Seeking schema.

- Administration Instructions:

The instructions were explained to the participants as follows:

"Indicate the extent to which you experience the feelings expressed in each item by selecting the number that corresponds to or matches your situation."

The rating scale was as follows:

Strongly Disagree (1) / Disagree (2) / Somewhat Agree (3) / Agree (4) / Strongly Agree (5).

- Scale Scoring Method:

The scoring for the Brief Schema Questionnaire (Young Schema Questionnaire - Short Form) is as follows:

5-8 points: The schema does not affect the individual.

9-12 points: The schema affects the individual under certain circumstances.

13-16 points: The schema represents a problem for the individual.

17-20 points: The schema plays an important role in the individual's life.

21-25 points: The schema is core to the individual's personality organization.

2.4.2. Psychometric Properties of the Two Scales:

1/Social Media Addiction Scale:

- Scale Reliability :

_ Cronbach's Alpha: Reliability was calculated using Cronbach's alpha for the total scale and its dimensions. The following table shows the reliability coefficient values:

Table 6: Cronbach's Alpha Results for the Social Media Addiction Scale and its Dimensions (N=60)

Dimension	Cronbach's Alpha
Excessive Use	0.736
Negative Impact	0.719
Withdrawal	0.793
Mood Modification	0.764
Salience	0.803
Total Scale	0.964

As shown in Table 6, Cronbach's alpha values for the scale's dimensions ranged from 0.719 to 0.803, and the alpha for the total scale was 0.964. These values are high, indicating good internal consistency reliability of the scale within this sample.

_ Split-Half Reliability: The scale was divided into two halves (odd-numbered items and even-numbered items). The correlation coefficient (r) between the scores of the two halves was calculated and then corrected using the Spearman-Brown prophecy formula:

Table 7: Split-Half Reliability Results for the Social Media Addiction Scale (N=30)

Correlation before Correction (r)	Spearman-Brown Corrected Correlation
0.930	0.964

As shown in Table (7), the split-half reliability coefficient before correction was 0.930, and after correction with the Spearman-Brown formula, it was 0.964. This further supports the reliability of the scale. (Note: The sample size N=30 here differs from N=60 for Cronbach's Alpha, ensure this is intended or correct if it's a typo).

- Scale Validity: Validity was assessed using discriminant validity.

_ Discriminant Validity (Contrasted Groups Method): The validity of this scale was assessed using the contrasted groups method. University students' scores on the Social Media Addiction Scale were ranked from lowest to highest. The top

27% (upper group) and bottom 27% (lower group) of scorers were identified. The means and standard deviations for these two extreme groups were calculated, and the significance of the difference between their means was tested using an independent samples t-test.

Table 8: Independent Samples t-test Results Comparing Mean Scores of the Upper and Lower Extreme Groups on the Social Media Addiction Scale

Group	N	Mean	Standard Deviation (SD)	Calculated t-value	Significance Level (p)	Degrees of Freedom (df)
Upper 27% Group	16	204.41	53.022			
Lower 27% Group	16	110.53	36.728	8.233	0.01	30

Table (8) above shows the discriminant validity results for the Social Media Addiction Scale. There is a significant difference between the means of the upper and lower groups ($t(30) = 8.233, p = 0.01$). This indicates that the scale effectively differentiates between individuals expected to have high and low levels of social media addiction, thus supporting the construct validity of the instrument.

– Internal Consistency Validity (Dimension-Total Correlations): This was assessed by calculating the correlation coefficients between the scores of each dimension and the total score of the Social Media Addiction Scale.

Table 9: Correlation Coefficients between Social Media Addiction Scale Dimensions and the Total Score

Dimension	Correlation Coefficient (r)
Excessive Use	0.771**
Negative Impact	0.803**
Withdrawal	0.728**
Mood Modification	0.756**
Salience	0.865**

** Correlation is significant at the 0.01 level (2-tailed).

As shown in Table (9) above, Pearson correlation coefficients between the dimensions of the Social Media Addiction Scale and the total score range from 0.728 to 0.865, all significant at the 0.01 level. This indicates good internal consistency and provides further evidence for the scale's validity.

2/ Psychometric Properties of the Scale: Maladaptive Cognitive Schemas Scale (YSQ-SF):

- Scale Reliability: Reliability was assessed using Cronbach's alpha and the split-half method.

_ Cronbach's Alpha:

Internal consistency reliability was calculated using Cronbach's alpha for the total scale and its dimensions. The following table shows the reliability coefficients:

Table 10: Cronbach's Alpha Results for the Maladaptive Cognitive Schemas Scale (YSQ-SF) and its Dimensions (N=60)

Dimension	Cronbach's Alpha
Emotional Deprivation	0.885
Abandonment / Instability	0.884
Mistrust / Abuse	0.881
Social Isolation / Alienation	0.872
Defectiveness / Shame	0.786
Failure	0.841
Dependence / Incompetence	0.917
Vulnerability to Harm or Illness	0.868
Enmeshment / Undeveloped Self	0.656
Subjugation	0.848
Self-Sacrifice	0.851
Emotional Inhibition	0.749
Unrelenting Standards	0.706
Entitlement / Grandiosity	0.740
Insufficient Self-Control	0.652
Total Scale	0.961

As shown in Table 10, Cronbach's alpha values for the dimensions of the Maladaptive Schemas Scale range from 0.652 to 0.917, and the alpha for the total scale is 0.961. These values are generally high, indicating good internal consistency and reliability of the scale within this sample.

_ Split-Half Reliability: The scale was divided into two halves (odd-numbered items and even-numbered items). The correlation coefficient (r) between the scores of the two halves was calculated and then corrected using the Spearman-Brown prophecy formula:

Table 11: Split-Half Reliability Results for the Maladaptive Cognitive Schemas Scale (YSQ-SF) (N=60)

Correlation before Correction (r)	Spearman-Brown Corrected Correlation
0.955	0.977

As shown in Table 11, the split-half reliability coefficient before correction was 0.955, and after correction with the Spearman-Brown formula, it was 0.977. This further supports the reliability of the scale.

- **Scale Validity:** Validity was assessed using discriminant validity and internal consistency.

– **Discriminant Validity (Contrasted Groups Method):** The validity of this scale was assessed using the contrasted groups method. University students' scores on the Maladaptive Cognitive Schemas Scale were ranked from lowest to highest. The top 27% (upper group) and bottom 27% (lower group) of scorers were identified. The means and standard deviations for these two extreme groups were calculated, and the significance of the difference between their means was tested using an independent samples t-test.

Table 12: Independent Samples t-test Results Comparing Mean Scores of the Upper and Lower Extreme Groups on the Maladaptive Cognitive Schemas Scale (YSQ-SF)

Group	N	Mean	Standard Deviation (SD)	Calculated t-value	Significance Level (p)	Degrees of Freedom (df)
Upper 27% Group	16	247.81	34.801			
Lower 27% Group	16	143.69	18.871	10.521	0.01	30

Table 12 above shows the discriminant validity results for the Maladaptive Cognitive Schemas Scale. There is a significant difference between the means of the upper and lower groups ($t(30) = 10.521, p = 0.01$). This indicates that the scale effectively differentiates between individuals expected to have high and low levels of maladaptive schemas, thus supporting the construct validity of the instrument.

– **Internal Consistency Validity (Dimension-Total Correlations):** This was assessed by calculating the correlation coefficients between the scores of each dimension and the total score of the Maladaptive Cognitive Schemas Scale.

Table 13: Correlation Coefficients between Maladaptive Cognitive Schemas Scale (YSQ-SF) Dimensions and the Total Score

Dimension (No.)	Correlation (r)	Dimension (No.)	Correlation (r)
1 (Emotional Deprivation)	0.412**	9 (Enmeshment)	0.477**
2 (Abandonment)	0.394**	10 (Subjugation)	0.491**
3 (Mistrust/Abuse)	0.401**	11 (Self-Sacrifice)	0.513**
4 (Social Isolation)	0.480**	12 (Emotional Inhibition)	0.290*
5 (Defectiveness/Shame)	0.395**	13 (Unrelenting Standards)	0.264*
6 (Failure)	0.365**	14 (Entitlement)	0.270*
7 (Dependence/Incompetence)	0.389**	15 (Insufficient Self-Control)	0.600**
8 (Vulnerability)	0.518**		

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 13 above, Pearson correlation coefficients between the dimensions and the total score of the Maladaptive Cognitive Schemas Scale range from 0.264 to 0.600, significant at the 0.01 or 0.05 level. This indicates good internal consistency and provides further evidence for the scale's validity.

3. Results:

3.1. Presentation of the Results for the First Hypothesis:

Which states that: "There is a strong correlational relationship between maladaptive cognitive schemas and social media addiction."

To test the main hypothesis, we calculated the Pearson correlation coefficient between the total scores of university students' responses on the Maladaptive Cognitive Schemas scale and the Social Media Addiction scale. The results are shown in the following table:

Table 14: Pearson Correlation Coefficient between the Maladaptive Cognitive Schemas Scale and the Social Media Addiction Scale.

Variables	Pearson Correlation Coefficient (r)	Sample (N)	Significance Level (p)
Maladaptive Cognitive Schemas			
Social Media Addiction	0.610	125	0.01

** Correlation is significant at the 0.01 level (2-tailed). As shown in Table 14, the calculated correlation coefficient between the scores on the Maladaptive Cognitive Schemas scale and the Social Media Addiction scale is estimated at 0.610. This value is significant at the 0.01 level, indicating a strong positive correlation between maladaptive cognitive schemas and social media addiction among university students. Therefore, the hypothesis is supported.

3.2. Presentation of the Results for the Second Hypothesis:

Which states that: "We expect the predominant maladaptive cognitive schemas among university students to be: the Abandonment/Instability schema, the Emotional Deprivation schema (both from the Disconnection/Rejection domain), and the Entitlement/Grandiosity schema (from the Impaired Limits domain)."

The means and standard deviations of the study sample's responses to the maladaptive cognitive schemas were ranked to verify the first specific hypothesis. The results are presented in the following table:

Table 15: Ranking of Means and Standard Deviations for the Study Sample's Responses on the Maladaptive Cognitive Schemas

Maladaptive Cognitive Schema	Mean	Standard Deviation (SD)	Rank
Entitlement / Grandiosity	17.20	3.827	01
Unrelenting Standards / Hypercriticalness	17.20	3.827	01
Self-Sacrifice	15.76	4.797	02
Negativity / Pessimism	15.76	4.797	02
Approval-Seeking / Recognition-Seeking	14.89	4.041	03
Mistrust / Abuse	14.55	5.309	04
Vulnerability to Harm or Illness	14.46	3.699	05
Insufficient Self-Control / Self-Discipline	14.46	3.699	05
Social Isolation / Alienation	14.11	4.899	06
Emotional Deprivation	13.40	5.171	07
Emotional Inhibition	12.12	4.921	08
Abandonment / Instability	12.12	4.921	08
Punitiveness	12.04	4.045	09
Enmeshment / Undeveloped Self	11.02	3.510	10

Defectiveness / Shame	10.80	4.126	11
Dependence / Incompetence	9.58	4.503	12
Subjugation	9.53	4.097	13
Failure	9.28	3.493	14

As shown in Table (15) above, the means of the study sample's responses ranged from 9.28 to 17.20. It is observed that the Entitlement/Grandiosity and Unrelenting Standards/Hypercriticalness schemas ranked first, both with a mean of 17.20 and a standard deviation of 3.827. Ranked second were the Self-Sacrifice and Negativity/Pessimism schemas, both with a mean of 15.76 and a standard deviation of 4.797. The Approval-Seeking/Recognition-Seeking schema ranked third with a mean of 14.89 and a standard deviation of 4.041. The remaining schemas followed in the order shown in the table above.

Additionally, the means and standard deviations for the study sample's responses on the domains of the Maladaptive Cognitive Schemas scale were ranked. The results are presented in the following table:

Table 16: Ranking of Means and Standard Deviations for the Study Sample's Responses on the Domains of the Maladaptive Cognitive Schemas Scale

Scale Domains	Mean	Standard Deviation (SD)	Rank
Disconnection and Rejection	64.98	19.590	1
Impaired Autonomy and Performance	64.94	17.911	2
Overvigilance and Inhibition	29.41	6.383	3
Impaired Limits	29.34	6.954	4
Other-Directedness	24.16	7.094	5

As shown in Table (16) above, the means of the study sample's responses on the domains ranged from 24.16 to 64.98. It is observed that the Disconnection and Rejection domain ranked first with a mean of 64.98 and a standard deviation of 19.590. The Impaired Autonomy and Performance domain ranked second with a mean of 64.94 and a standard deviation of 17.911. The Overvigilance and Inhibition domain ranked third with a mean of 29.41 and a standard deviation of 6.383. The remaining domains followed in the order shown in the table above. Therefore, the first specific hypothesis was not supported regarding its first part (concerning the Abandonment/Instability and Emotional Deprivation schemas from the Disconnection/Rejection domain), but it was supported regarding its second part (concerning the Entitlement/Grandiosity schema from the Impaired Limits domain).

4. Discussion :

4.1. Discussion of the Results for the First Hypothesis:

The results confirm a strong positive correlation between maladaptive cognitive schemas and social media addiction. This aligns with previous studies, such as Claudio-Vieira et al. (2023), which linked domains like "Disconnection and Rejection" and "Impaired Limits" to addictive behaviors; the study by Kahouei et al. (2020), which showed the prevalence of schemas among addicts and their association with increased addiction risk; the study by Laura Celsi et al. (2021), which demonstrated the role of the "Emotional Deprivation" schema as a mediator between adverse childhood experiences and dating app misuse; the study by Efrati et al. (2022), linking schemas to adolescent addiction; and the study by Laazazga et al. (2021) in the Algerian context.

This can be interpreted according to Young's schema theory (Young et al., 2005), which posits that these schemas, originating in childhood due to unmet core needs, cause distress that prompts individuals to use coping mechanisms (Haddar & Kadouani, 2020). Social media becomes an escape haven and a maladaptive coping style to reduce schema-related discomfort, especially as it may seem less threatening than real-life interaction. However, this usage can fall into a vicious cycle: the belief that virtual satisfaction is attainable (Ahmed & Faghfi, 2021) leads to excessive use, which, in turn, can activate and rigidify schemas and is associated with psychological disorders. This further reinforces the need for virtual escape.

Although some studies do not fully concur (e.g., Ghilaci & Taabli, 2023), possibly due to avoidance strategies that prevent schema activation in certain individuals, the general trend suggests that social media addiction often reflects underlying dysfunction in maladaptive cognitive schemas. It represents an escape response aimed at obtaining immediate gratification and serves as an alternative to confronting the real-world frustrations and problems associated with these schemas.

4.2. Discussion of the Results for the Second Hypothesis:

The second hypothesis predicted university students' predominance of Abandonment/Instability, Emotional Deprivation, and Entitlement/Grandiosity schemas. However, the results showed an incomplete match with this prediction. While the Entitlement/Grandiosity schema ranked first among the predominant schemas, it shared this rank with the Unrelenting Standards/Hypercriticalness schema. Meanwhile, the Abandonment/Instability and Emotional Deprivation schemas ranked lower (eighth and seventh, respectively).

This finding partially aligns with the study by André Kuss et al. (2023), which linked Facebook addiction to schemas in the Impaired Limits domain (which includes Entitlement/Grandiosity), but it differs from other studies that found a predominance of schemas from the Disconnection and Rejection domain (e.g., Claudio-Vieira et al., 2023; Ostovar et al., 2021).

The researchers interpret the predominance of Entitlement/Grandiosity and Unrelenting Standards/Hypercriticalness schemas as suggesting they might be two sides of the same coin arising from specific family dynamics (Young et al., 2003). The Entitlement/Grandiosity schema drives individuals to seek validation, control, and admiration through social media (linked to narcissism and impulsivity according to (Andreassen, Hong et al., 2013), while the Unrelenting Standards/Hypercriticalness schema drives excessive use for performance checking and seeking acceptance due to perfectionism and strict rules.

It is believed that the distortion of core needs pushes individuals to seek alternative gratification in the virtual environment, which offers illusions of autonomy, connection, and competence (through likes and followers), thus reinforcing compulsive behavior (Mehmet Kavakli & Gülten Ünal, 2021). Furthermore, the design of social media platforms, with their interactive features, acts as a powerful catalyst for activating these schemas and promoting addictive behavior.

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Appendices:

Appendix (1): Social Media Addiction Scale

As part of a study on social media addiction and social isolation among students, we present you with this questionnaire containing a set of statements. Please read them carefully and place a mark (X) next to each statement in the column that best describes how often the statement applies to you. We kindly ask you to answer all statements. All we want is to know your personal opinion on the subject. This is for scientific purposes. Please know that the information will be kept strictly confidential and will be used only for scientific research. You

should also know that there are no right or wrong answers. The response options are: 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always.

Social Media Addiction Scale

Item No.	Statements	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
	Excessive Use					
1	I lose many friends because of my prolonged use of social media.					
2	Social media weakens my communication with my family.					
3	I have failed to stop using social media.					
4	I continue to use the internet and social media despite the physical problems it might cause me.					
5	I have failed in my attempts to reduce the time I spend on social media.					
6	I feel that time passes quickly when I am connected to social media.					
7	I hide from my friends and family the amount of time I spend on social media.					
8	I spend more than two hours a day on social media.					
9	My heavy use of social media has caused me to not visit my relatives and lose contact with them.					
	Negative Impact					
1	I go anywhere with internet access if the internet at home is down.					
2	My academic performance has declined due to social media.					

- 3 My internet bill has significantly increased my expenses.
- 4 I feel overwhelmed by my excessive internet use.
- 5 I use social media when I want to avoid doing things I don't like.
- 6 My use of social media makes me neglect my regular studies.
- 7 I open social media immediately after waking up.
- 8 I stay up late at night on social media.
- 9 I have neglected my hobbies because of my time on social media.
- Withdrawal
- 1 My friends accuse me of being controlled by social media.
- 2 I find that the best times are spent when I am on social media.
- 3 My friends reproach me for preferring social media over them.
- 4 I feel lonely and isolated when circumstances prevent me from accessing social media.
- 5 I escape from problems and difficulties I face into the world of social media.
- 6 I lose my close friends because of social media.
- 7 I suffer from fatigue and exhaustion due to my internet use.
- 8 I prefer social media over spending time with my friends.

9 I feel that my true friends are
my friends on social networks.

Mood Modification

1 I feel more comfortable and
free when I am connected to
social media.

2 I feel unhappy when
circumstances prevent me from
using social media.

3 My decision to stay away from
social media causes me intense
distress and unhappiness.

4 Social media helps me forget
my problems and reduce stress.

5 I don't feel pleasure if I don't
spend some time on social
media.

6 I feel distressed and agitated
when the internet speed is slow
or unavailable.

7 I feel depressed when I am not
connected to social media.

8 I increase my connection to
social media to obtain
happiness, pleasure, and
satisfaction.

9 Social media is the only place
where I feel pleasure.

Salience

1 I see social media as very
important in my personal life.

2 I feel that social media is like
water and air.

3 I skip meals when I am on
social media.

4 I cannot imagine myself away
from social media.

5 Social media makes me feel

- important and great.
- 6 The best invention of this era is social media.
- 7 Communicating on social media is better than communicating with people in real life.
- 8 Social media relieves my life stress.
- 9 Social media is considered a safe haven when life gets tough.

Appendix No. (2): Young Schema Questionnaire - Short Form (YSQ-SF)

Scale Instructions

Indicate how well each statement describes you by selecting the number that best corresponds to your situation, according to the scale below. Please note that there are no right or wrong answers.

Strongly Disagree Disagree Somewhat Agree Agree Strongly Agree

(1) (2) (3) (4) (5)

The information from this scale is strictly confidential and will only be used for scientific purposes. The results of this research will contribute to psychological and social assistance for similar cases.

Item No.	Item Statement
1	Most of the time, I haven't had someone to care for me or be interested in what happens to me.
2	Generally, I haven't found people from whom I receive warmth, support, and affection.
3	In my life, I haven't felt that I was special to someone.
4	Mostly, I haven't found anyone who listens to me, understands me, or is sensitive to my feelings.
5	I rarely find a strong person to give me sound advice or guide me when I'm unsure what to do.
6	I often cling to people close to me because I'm afraid they'll abandon me.
7	I need people so much that I imagine I will lose whoever cares about me.
8	Thinking that people close to me will leave me makes me anxious.
9	When I feel that someone I'm close to is pulling away, I become

- desperate.
- 10 Sometimes I'm so preoccupied with others leaving me that I push them away.
- 11 I feel that others take advantage of me.
- 12 I believe I should stay vigilant around others, or they will intentionally hurt me.
- 13 Sooner or later, I will be betrayed.
- 14 I doubt the motives and intentions of others.
- 15 I usually watch for the true, hidden intentions of my peers/colleagues.
- 16 I feel uncomfortable in the environment I am in.
- 17 I am fundamentally different from others.
- 18 I am distinct from others; I am alone.
- 19 I feel isolated from others.
- 20 I have the impression that I am outside the group.
- 21 No one I desire could love me once they see my flaws.
- 22 None of the people I know would stay close to me if they knew the real me.
- 23 I am not worthy of the love, attention, and respect of others.
- 24 I have the impression that I cannot be loved.
- 25 I usually do not accept revealing my flaws/weaknesses.
- 26 Most things I do in my life aren't as good compared to what others do.
- 27 I am not competent enough to succeed.
- 28 Most people are more competent than me in the areas of work and success.
- 29 I am not as talented at work as others are.
- 30 I'm not as smart as other people when it comes to work or school.
- 31 I don't feel capable of relying on myself in life.
- 32 I consider myself a dependent person regarding daily life.
- 33 I don't have good, sound judgment.
- 34 My judgment is not sound in everyday situations.
- 35 I am not confident in my ability to solve problems I encounter.
- 36 It's hard for me to shake the feeling that something bad is going to happen to me.
- 37 I feel that a disaster or illness could strike at any time.
- 38 I am afraid of being attacked.
- 39 I'm afraid of losing all my money and becoming destitute/bankrupt.

- 40 I'm afraid I might have a serious illness, even if it hasn't been diagnosed by a doctor.
- 41 I can't seem to separate from my parent(s) like other people my age.
- 42 My parent(s) and I tend to be involved in each other's lives and problems.
- 43 It's really hard for my parent(s) and me to keep details of our lives private without feeling betrayed or guilty.
- 44 I often have the impression that others are part of me to the extent that I don't feel my own existence.
- 45 I am certain that I do not have an independent identity.
- 46 I feel I should be able to do what I want, but this often leads me to boredom.
- 47 I believe I have no choice but to submit to others' wishes, or they will retaliate or reject me.
- 48 In my relationships, I let others impose their personality on me.
- 49 I always let others decide for me, so I don't really know what I want for myself.
- 50 I often find it difficult in life to defend my rights and express my feelings.
- 51 I am the person who usually ends up taking care of the people close to me.
- 52 I am a good person because I think more about others than about myself.
- 53 I am always busy meeting the needs of others, which makes me anxious because I don't have enough time for myself and my needs.
- 54 I am always the one who listens to others' problems.
- 55 Others see me as someone who does too much for others and not enough for myself.
- 56 It bothers me a lot to show positive feelings.
- 57 I find myself uncomfortable expressing my feelings to others.
- 58 I find it difficult to be affectionate and lively.
- 59 I control myself so much that others think I am emotionless.
- 60 I don't have the ability to express my emotions.
- 61 I must be the best at everything I do; I can't accept being second best.
- 62 I try to be the best; I don't accept work that is merely 'good enough'.
- 63 I must fulfill my responsibilities.
- 64 I feel there is constant pressure on me to succeed and complete my achievements.
- 65 I find it difficult to solve problems and do not make excuses for my

- mistakes.
- 66 I find it difficult to accept 'no' for an answer when I ask something of others.
- 67 I am special, so I don't accept most of the restrictions others have to submit to.
- 68 I hate being forced to do certain things or being prevented from doing what I want.
- 69 I feel that I shouldn't have to follow the required social roles or conform to norms like others.
- 70 I believe I shouldn't be required to be disciplined and organized to finish routine and boring tasks.
- 71 I believe that what I can offer is of much greater value than the contributions of others.
- 72 If I can't reach my goal, I feel frustrated and give up easily.
- 73 I find it difficult when I have to sacrifice an immediate reward to achieve a long-term goal.
- 74 I feel I shouldn't be forced to do things I don't like, even if they are in my best interest.
- 75 I can rarely stick to my decisions.