

Behavioral Therapy for Social Media Addicted Adolescents: A Clinical Study in Biskra

العلاج السلوكي للمراهقين المدمنين على مواقع التواصل الاجتماعي: دراسة عيادية- في ولاية بسكرة

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Receipt Date : 25/01/2025

Acceptance Date : 09/04/2025

Published Date : 25/05/2025

Abstract: This field study aimed to clarify the steps of behavioral treatment followed for adolescents addicted to social networking sites, because this type of addiction is no less dangerous in terms of its pathological consequences than opium uses or any other type of drug, due to the dependency, habit, and serious repercussions it causes on mental and physical health. Addiction to social networking sites has become a habit followed by many young people, and this problem affects psychological and social adjustment and causes family and educational problems. This phenomenon has become more widespread in all societies, especially among adolescents, as social networking sites have developed and diversified significantly, and these sites provide quality services, and are distinguished by characteristics and functions that make them preferred by adolescents. Therefore, and in view of the seriousness of the phenomenon, treatment is an absolute necessity, because addiction to social networking sites is considered in itself a disorder that requires treatment. Since many adolescents have become addicted to these sites through habit, behavioral therapy is considered the most appropriate psychological treatment for this phenomenon. To complete this study, we relied on the clinical approach using the case study and interview technique. Clinical, as well as designing a behavioral program to treat social media addicts. Through this study, we have concluded the importance of behavioral therapy in reducing addiction to social media.

Keywords: Addiction - Adolescence - Behavioral therapy - social media.

المخلص: هدفت هذه الدراسة الميدانية لإيضاح خطوات العلاج السلوكي المتبعة للمراهقين المدمنين على مواقع التواصل الاجتماعي، لأن هذا النوع من الإدمان لا يقل خطورة من حيث نتائجه المرضية عن تعاطي الأفيون أو أي نوع آخر من المخدرات لما يسببه من تبعية واعتياد وتداعيات خطيرة على الصحة النفسية والجسمية، فقد أصبح الإدمان على مواقع التواصل الاجتماعي عادة متبعة لدى الكثير من الشباب، كما أن هذه المشكلة تؤثر على التوافق النفسي والاجتماعي وتسبب مشكلات أسرية وتعليمية، وقد أصبحت هذه الظاهرة أكثر انتشارا في جميع المجتمعات لاسيما فئة المراهقين، حيث أن مواقع التواصل الاجتماعي قد تطورت وتنوعت بشكل ملحوظ، وتقدم هذه المواقع خدمات نوعية، كما تتميز بخصائص و وظائف تجعلها المفضلة لدى فئة المراهقين، ولهذا ونظرا لخطورة الظاهرة فإن العلاج ضرورة حتمية لأن الإدمان على مواقع التواصل الاجتماعي يعتبر في حد

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ذاته اضطرابا يستدعي العلاج، وبما أن الكثير من المراهقين قد أدمنوا على تلك المواقع عن طريق العادة فإن العلاج السلوكي يعتبر انسب العلاجات النفسية لهذه الظاهرة، ولإنجاز هذه الدراسة اعتمدنا على المنهج العيادي باستخدام تقنية دراسة الحالة والمقابلة العيادية، وكذا تصميم برنامج سلوكي لعلاج للمدمنين على مواقع التواصل الاجتماعي، وقد توصلنا من خلال هذه الدراسة إلى أهمية العلاج السلوكي في الحد من الإدمان على مواقع التواصل الاجتماعي.

الكلمات المفتاحية: العلاج السلوكي - المراهقة - الإدمان - مواقع التواصل الاجتماعي.

Introduction:

Recent advancements in digital communication technologies, such as smartphones and tablets, have facilitated their ubiquitous integration across all demographic strata. This proliferation has engendered a pathological phenomenon akin to substance addiction- excessive social media usage, notably on platforms like Facebook. This trend poses significant challenges across varying cultures, demanding an in-depth psychological examination and responsive therapeutic interventions.

Social media platforms, curated by major corporations, are engineered to maximize user engagement, offering a plethora of services from messaging to blogging and networking globally. Facebook, managed by Meta Platforms Inc., epitomizes this engagement, enabling users to navigate effortlessly through its interface for various interactions, thereby appealing to a broad user base irrespective of their educational background.

The compulsive use of these platforms, particularly among adolescents, often escalates into a full-blown addiction, necessitating clinical attention and intervention.

1- Research Problem:

The spectrum of addiction has broadened with the evolution of media and communication tools, introducing social media addiction as a formidable adversary. This form of addiction manifests through both physical symptoms, like persistent headaches, particularly in the occipital lobe, and psychological symptoms, such as anxiety following discontinuation, akin to traditional drug withdrawals. Such conditions exacerbate social isolation and deteriorate overall well-being.

Excessive engagement with social media can progress into a state of behavioral addiction, marked by psychological dependence and, in some cases, physiological dysregulation. This condition is underpinned by maladaptive reinforcement mechanisms, where habitual use is sustained by the activation of the brain's reward system, particularly the mesolimbic dopamine pathway. Such patterns are characterized by compulsive behaviors driven by the need to achieve hedonic gratification or to mitigate the psychological distress associated with withdrawal-like symptoms.

From a clinical perspective, this phenomenon aligns with the diagnostic framework of "substance-related and addictive disorders," as outlined in the International Classification of Diseases, Tenth Revision (ICD-10).

Social media addiction is closely associated with a heightened sense of gratification, a powerful emotional reinforcer that significantly contributes to the maintenance of compulsive behaviors. Addicts frequently seek the transient euphoria that accompanies and immediately follows engagement with the addictive medium, perpetuating their dependency (Soueif, 1996, pp. 21–22).

Among various societal groups, adolescents stand out as one of the most vulnerable to excessive social media use. For instance, data from the Pew Research Center, detailed in the report *Teens and Technology*, reveal that 83% of a sample comprising 802 teenagers are regular internet users. Furthermore, 34% of those aged 14–17 primarily rely on smartphones for access. Notably, the findings underscore that usage patterns are nearly identical between male and female adolescents, demonstrating the ubiquity of this phenomenon across genders.

Adolescence, however, is a particularly critical developmental stage. It is during this phase that individuals strive to assert autonomy from parental authority while simultaneously working to establish a coherent self-identity and demonstrate emerging competencies. Moreover, this period is marked by significant neurobiological, psychological, and social changes, as well as the normative

reactivation and resolution of Oedipal conflicts, which collectively shape the final contours of personality (Mouawad, 1993, p. 93). Given these developmental vulnerabilities, it becomes evident that social media addiction, particularly when it occurs during adolescence, poses a significant threat to healthy personality development and psychosocial functioning.

Consequently, there is a pressing need to explore and implement effective therapeutic interventions to address this issue. In light of this, the study poses the overarching question: What behavioral therapy techniques are effective in treating adolescents addicted to social media?

In pursuit of an answer, the following sub-questions have been formulated:

- To what extent can the supportive and counter-evidence technique mitigate social media addiction in adolescents?
- How effective is guided imagery, particularly envisioning potential future outcomes, in reducing compulsive social media behaviors?
- Can aversion-based interventions, such as inducing disgust, serve as viable therapeutic techniques for managing social media addiction?

2- Research Hypotheses:

- **Primary Hypothesis:** Behavioral therapy is an effective intervention for adolescents with social media addiction.

- Secondary Hypotheses:

- The use of supportive and counter-evidence techniques- both supporting and opposing -evidences- can significantly mitigate the symptoms of social media addiction.
- Guided imagery that depicts potential future scenarios offers a viable therapeutic approach for reducing compulsive social media behaviors.
- Disgust induction techniques may serve as effective components in behavioral therapy for adolescents suffering from social media dependency.

3- Operational Définitions:

- **Behavioral Therapy:** Refers to a set of evidence-based interventions designed to modify maladaptive behaviors by targeting their antecedents, consequences, and associated cognitive processes. Techniques such as supportive and counter-evidence, guided imagery, and disgust induction are rooted in behavior modification principles and cognitive-behavioral frameworks, emphasizing the interaction between thoughts, emotions, and behaviors (Kazdin, 2017).
- **Adolescence:** Defined as a transitional developmental stage typically spanning the ages of 10 to 19, characterized by profound physical, psychological, and social changes, as recognized by the World Health Organization (WHO). The focus in this research is specifically on late adolescence, which corresponds to the ages of 16 to 18 and involves critical identity formation and autonomy-seeking behaviors (Blakemore, 2018).
- **Addiction:** Behavioral addiction is characterized by compulsive engagement in activities, such as excessive social media use, that interfere with daily functioning and personal well-being. According to the American Psychiatric Association (2013), addiction is marked by impaired control, prioritization of the behavior over other obligations, and continuation despite adverse consequences. In the context of social media, these symptoms are exacerbated by constant accessibility and the reinforcement of gratification through likes, comments, and interactions (Griffiths, 2012).
- **Social media:** Defined as web-based platforms that enable individuals to create profiles, share content, and interact with others in real-time. Platforms such as Facebook are widely used, particularly among adolescents, due to their capacity to fulfill social needs, including communication, validation, and identity exploration (Kietzmann et al., 2011). However, the overuse of these platforms has been linked to increased psychological distress and impaired social functioning (Twenge, 2017).

4- Research Objectives:

- a. To evaluate the overall effectiveness of behavioral therapy in addressing social media addiction among adolescents.
- b. To assess, specifically, the impact of supportive and counter-evidence techniques in reducing addiction-related behaviors.
- c. To investigate the role of guided imagery in modifying compulsive social media use.
- d. To explore the efficacy of disgust induction techniques as a therapeutic strategy for treating social media dependency.

5- Methodological Framework :

5-1. Research Methodology:

The clinical approach was employed, as it is particularly well-suited to examining individual cases in depth. Specifically, this method allows for a comprehensive understanding of behavioral patterns, internal conflicts, and the psychological mechanisms underlying social media addiction. Consequently, it enables a thorough evaluation of the efficacy of targeted therapeutic interventions (Alian & Ghneim, 2002, p. 132).

5-1.1. Research Instruments :

- **Case Study:** This method was utilized to gather detailed personal and behavioral histories from participants. Notably, the case study approach is recognized for its ability to uncover contextual and causal factors that contribute to maladaptive behaviors. Furthermore, it is particularly effective for examining individuals with significant adjustment difficulties (Qatami& Barhoum, 1989, p. 172).
- **Clinical Interview:** Defined as a dynamic and collaborative interaction between the therapist and the participant, this tool facilitates the identification of underlying psychological issues. Moreover, it provides a structured yet flexible framework for assessing therapeutic progress (Maher, n.d.). In this study,

individual interviews were conducted with each participant, and detailed notes were maintained to track therapeutic stages and participant reflections.

5-2. Sample Selection:

Three cases were purposefully selected based on the criteria of exhibiting significant symptoms of social media addiction. This intentional sampling strategy ensures a detailed examination of therapeutic outcomes.

5-3. Research Scope :

- **Geographical Scope:** The research was conducted within the School Medicine Service in the wilaya ofBiskra.
- **Temporal Scope:** The research spanned from 10 September 2024 to 25 December 2024.
- **Participant Scope:** The study included three adolescents, each of whom underwent individualized assessments and interventions tailored to their specific behavioral patterns and psychological needs.the following table details the characteristics of the study sample:

Table N°1. Characteristics of the Research Participants (Source: Compiled by the researchers, 2024)

Characteristic	Case 1	Case 2	Case 3
Age	16	18	18
Gender	Female	Female	Male
Educational Level	Second Year High School	Third Year High School	Second Year High School
Repetition Status	Repeater	Non-Repeater	Repeater
Father's Educational Level	University	University	Secondary
Mother's Educational Level	University	University	University
Father's Profession	Administrative Employee	Dentist	Civil Protection Agent

Mother's Profession	Primary School Teacher	Unemployed	Unemployed
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The characteristics of the research participants reveal several significant demographic and contextual factors, offering critical insights into the underlying psychosocial dynamics influencing social media addiction. These factors, analyzed collectively, underscore the importance of contextualizing behavioral patterns within the framework of familial, educational, and developmental contexts.

- **Age:** Specifically, the participants are aged 16 to 18, placing them in late adolescence, a developmental period marked by heightened neuropsychological and psychosocial vulnerability. During this phase, the prefrontal cortex, which governs executive functions such as impulse control and decision-making, is still maturing. Consequently, adolescents are particularly susceptible to engaging in maladaptive behaviors, including compulsive social media use.
- **Gender:** The sample comprises two females and one male.
- **Educational Level:** Two participants are enrolled in the second year of high school, while one is in the third year. The inclusion of both repeaters and non-repeaters adds a layer of complexity, as academic performance and grade repetition are often linked to psychosocial stressors. These stressors, in turn, may exacerbate susceptibility to behavioral addictions by increasing reliance on maladaptive coping mechanisms.
- **Parental Educational Attainment:** Notably, the educational levels of the parents highlight disparities that may influence adolescent development. For two participants, both parents hold university degrees. In contrast, one father has a secondary-level education.
- **Parental Professions:** Moreover, fathers in the sample hold diverse professional roles, ranging from administrative positions to specialized occupations such as dentistry. Conversely, the mothers' professional statuses differ, with only one employed as a primary school teacher, while the others are unemployed.

6- Results and Discussion:

The implementation of behavioral therapy for the three cases followed a structured and systematic process, comprising several critical stages. The diagnostic phase, specifically, involved an in-depth analysis of addiction-related symptoms, as outlined in the *ICD-10* classification by the World Health Organization. Furthermore, this phase was enriched by collaborating with the clinical psychologist at the School Medicine Service.

6-1. Diagnostic Phase:

The diagnostic process unfolded across three sequential sessions, each tailored to achieve specific therapeutic objectives:

6-1.1. First Session:

The primary aim was to establish therapeutic rapport and foster trust, which are foundational to any effective intervention. Specifically, the session involved assessing participants' intrinsic and extrinsic motivations for therapy. A therapeutic contract was introduced, delineating mutual responsibilities: the psychologist committed to maintaining confidentiality and providing professional guidance, while participants agreed to engage transparently and adhere to therapeutic recommendations. The open-ended interview format allowed for unstructured exploration of participants' concerns and expectations.

6-1.2. Second Session:

This session focused on a holistic psychosocial assessment of each participant. For instance, their personal, familial, and academic histories were analyzed alongside the factors contributing to their compulsive social media use. Moreover, prior cessation attempts and the barriers to sustaining abstinence were explored. Consequently, diagnostic hypotheses were formulated to guide the subsequent therapeutic approach.

6-1.2. Third Session:

The final session in the diagnostic phase involved a comprehensive evaluation of the addiction's multifaceted impact, encompassing psychological, social, and physical domains. Furthermore, the diagnostic hypotheses were refined, and participants were provided with a detailed overview of the behavioral therapy techniques that would be employed.

Table N°2. Summary of Diagnostic Findings for the Three Cases (Source: Compiled by the researchers, 2024)

Diagnostic Findings	Case 1	Case 2	Case 3
Type of Request	Internal: Voluntari lysought therapy.	Internal: Voluntari lysought therapy.	External: Referred by an Islamic Sciences teacher.
Complaint	Reported a desire to replace her phone due to its detrimental impact on academic performance, family life, and physical well-being.	Expressed fear of academic failure, particularly failing the baccalaureate exam, due to excessive Facebook use.	The therapist emphasized the benefits of therapy to encourage participation.
Duration of Facebook Use	Since middle school.	Three years.	Six years.
Reasons for Facebook Use	To exchange information and fill leisure time.	McMicking familymembers.	Imitatingpeer groups.
Attempts to Quit	No priorattempts.	Multiple unsuccessfulattempts.	Multiple unsuccessfulattempts.
Relapse Causes	Not applicable.	Relapse attributed to cold familial relationships and anxiety stemming from cessation (dependency).	Relapse linked to heightened anxiety and lack of structured alternative activities.
Adhérence to Therapeutic Contract	All participants agreed to the therapeutic contract and demonstrated commitment to its terms.		

The diagnostic findings reveal a distinct profile for each case, highlighting the multifaceted nature of Facebook addiction. Specifically, Case 1 and 2 voluntary request for therapy indicates intrinsic motivation, contrasting with the externally driven referrals in Cases 3. Moreover, the duration of addiction varies significantly, with Case 1 engaging with Facebook since middle school, while Cases 2 and 3 represent more recent adopters.

The reasons for Facebook use further underscore the influence of environmental and social factors, with family and peer mimicry emerging as key drivers in Cases 2 and 3. Attempts to quit and the causes of relapse demonstrate the emotional and behavioral challenges associated with cessation, particularly in Cases 2 and 3, where anxiety and the absence of alternative coping strategies perpetuated dependency. Notably, all participants adhered to the therapeutic contract, reflecting their willingness to engage in the intervention process.

Table N°3: Identification of Facebook Addiction Symptoms (Source: Compiled by the researchers, 2024)

Case	Facebook Addiction Symptôme
Case 1	- Persistent urge to use Facebook. - Intense gratification during use. - Irritability when forced to stop or give up the phone. - Prolonged usage, especially during nighttime, without awareness of time passage. - Frustration when Facebook use is interrupted. - Severe dark circles under the eyes. - Immediate response to messages, even during study hours.
Case 2	- Continuous desire to use Facebook. - Boredom, restlessness, and emotional distress when abstaining. - Excessive, uninterrupted phone use late into the night. - Emotional attachment to virtual friendships. - Dependence characterized by habitual and automatic use.
Case 3	- Frustration and irritability when deprived of the mobile phone. - Severe annoyance in response to criticism from parents and teachers about excessive usage.

	- Habitual reliance on Facebook. - Gradual escalation in daily usage duration.
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The symptoms observed in all three cases align with key diagnostic criteria for behavioral addiction, such as compulsive use, difficulty abstaining, and negative emotional responses to interruption. Notably, Case 1 demonstrates more pronounced somatic symptoms, while Cases 2 and 3 highlight emotional and relational dependencies. These variations suggest that individual motivational and psychosocial factors play a significant role in the manifestation of Facebook addiction.

Table N°4: Negative Impacts of Facebook Use (Source: Compiled by the researchers, 2024)

Impact Category	Case 1	Case 2	Case 3
Physical Effects	- Severe dark circles under the eyes. - Neck and head pain. - Reduced appetite.	- Insomnia. - Visual impairments, including dark circles. - Neck stiffness and associated discomfort.	- Insomnia. - Faintness and visual impairments. - Reduced appetite.
Psychological Effects	- Pronounced distress and anxiety when forced to stop phone usage. - Impaired capacity to actively listen to others. - Heightened feelings of social isolation.	- Intense anxiety and self-blame for inability to stop Facebook usage. - Persistent psychological distress. - Negative anticipations about future academic success, linked to overuse.	- Beyond persistent tension and compulsive use, no other major psychological symptoms were reported.
Academic Effects	- Declining academic performance. - Disrupted relationships with educators, evidenced by frequent reports and parental calls. - Memory deficits and reduced attention span.		
Familial Effects	- Heightened familial conflict arising from frequent financial demands for internet	- No reported familial issues, as the family encouraged social media use.	- Anxiety associated with critical feedback from family regarding prolonged phone usage.

	access. - Strained parent-child dynamics.		
Social Effects	- Significant reduction in authentic social interactions. - Increased preference for virtual connections. - Irritation when participating in disruptive social gatherings.		

Table 4 demonstrates that the negative consequences of Facebook addiction vary across cases but consistently affect physical, psychological, academic, familial, and social domains. Specifically, Case 1 exhibits the most severe physical and relational impacts, while Case 2 highlights significant psychological and academic repercussions. Meanwhile, Case 3 demonstrates notable familial and emotional tension, emphasizing the diverse ways in which addiction manifests and disrupts functioning across multiple life domains.

6-2. Therapeutic Procedures:

6-2.1. Application of the Supportive and Counter-Evidence Technique (Session Five):

During this session, participants were introduced to the Supportive and Counter-Evidence Technique, a structured intervention designed to evaluate the reinforcing and detrimental aspects of their Facebook use. Through a semi-structured interview, participants were encouraged to articulate supportive evidence (i.e., positive reinforcements) and counter-evidence (i.e., negative consequences) related to their behavior. The summarized findings are outlined in Table N°5.

Table N°5: Summary of Supportive and Counter-Evidence Based on Participant Responses (Source: Compiled by the researchers, 2024)

Case	Supportive Evidence	Counter-Evidence
Case 1	Expressed enjoyment from receiving likes on Facebook posts, which enhanced her sense of social validation and self-worth.	Reported declining academic performance and somatic symptoms, such as dark circles under her eyes. Additionally, noted reduced ability to verbally express thought effectively.

Case 2	Highlighted the utility of Facebook for exchanging academic materials, joining peer groups, and maintaining virtual social connections.	Revealed significant anticipatory anxiety about failing her baccalaureate exams due to excessive Facebook use, which interfered with academic preparation.
Case 3	Identified Facebook as a key leisure activity, providing enjoyment from commenting on posts and following football matches. Additionally, valued its role in information-seeking.	Reported frustration with Facebook's contribution to his academic failure, which led to interpersonal conflict with family and teachers, resulting in heightened emotional distress.

- Homework Assignment:

Participants were assigned a structured homework exercise to reinforce insights gained during the session. Over five days, they were instructed to focus on counter-evidence against Facebook use, documenting their reflections four times daily.

6-2.2. Application of the Guided Imagery Technique: Session Six:

The sixth session employed the **Guided Imagery Technique** to facilitate emotional engagement and promote self-reflection on the potential consequences of maladaptive behaviors. The session was structured into two key components:

- Discussion of Homework Results:

Participants shared their reflections from the previous week's homework, which focused on identifying and concentrating on the counter-evidence related to Facebook use. The findings underscored several recurring themes:

- Facebook use was consistently identified as a source of familial and academic conflict.
- Participants noted its negative impact on physical appearance, including aesthetic concerns such as dark circles and premature wrinkles around the eyes.
- There was a unanimous acknowledgment of how Facebook usage disrupted family cohesion and diminished emotional warmth within the household.

- Application of the Guided Imagery Technique:

Following the discussion, participants were instructed to engage in imaginal exposure by visualizing the worst-case scenarios that could arise from continued excessive Facebook use. The results are summarized in Table N°6.

Table N°6: Summary of Imagined Worst-Case Scenarios by Participants (Source: Compiled by the researchers, 2024)

Case	Imagined Worst-Case Scenarios
Case 1	The participant visualized becoming unattractive due to vision impairment caused by prolonged screen exposure. She feared eventual expulsion from school due to repeated academic failure, accompanied by feelings of rejection from her teachers and mother.
Case 2	Initially hesitant, the participant eventually articulated her fear of failing the baccalaureate examination, which she associated with the excessive time spent on Facebook instead of studying.
Case 3	The participant envisioned being summoned before a disciplinary board, expelled from school, and severely punished by his parents. He feared this would lead to depressive symptoms and eventual suicidal ideation.

- Homework Assignment:

Participants were assigned a follow-up exercise to reinforce the insights gained during the session. They were instructed to:

- Focus daily on the imagined consequences of their Facebook use, reflecting on these scenarios as inevitable if the behavior persisted.
- Write down these visualized outcomes and attach the notes to the back of their mobile phones.
- Read the notes each time they used Facebook over the course of one week.

6-3. Sessions Seven and Eight:

During these sessions, two activities were prioritized:

- Review of Homework Outcomes:

Participants adhered to the previously assigned task from session six, which required them to focus on the adverse consequences of excessive Facebook use. The

participants' reflections indicated consistent engagement with the exercise, yielding the following insights:

- Facebook use was continually associated with familial and academic challenges.
- Participants identified aesthetic concerns, such as dark circles and wrinkles, as significant consequences of prolonged smartphone use.
- Notably, Facebook disrupted familial harmony, preventing participants from experiencing emotional connection within their households.

- Discussion of Individual Impressions (Session Eight):

This session explored participants' subjective impressions regarding their progress in reducing smartphone dependency. Their reflections were as follows:

- **Case 1:** The participant reported growing discomfort when using Facebook and stated that she had begun assisting her mother with household responsibilities, reflecting a positive behavioral shift.
- **Case 2:** While this participant noted increased time spent studying, she admitted that Facebook still consumed a disproportionate share of her time.
- **Case 3:** The participant expressed joy over refraining from smartphone use during study hours. He reported improved attentiveness during lessons, particularly in natural sciences, which translated into better academic outcomes. However, he acknowledged continued overuse of Facebook outside study periods.

- Homework Assignment:

To consolidate progress, the participants were assigned the same task as in prior sessions, maintaining focus on internalizing the potential consequences of excessive Facebook use.

- Sessions Nine and Ten:

In these sessions, the same therapeutic strategies were employed, with gradual improvement observed among participants. However, progress varied across

individuals, prompting the decision to introduce an additional technique in the subsequent session to accelerate behavioral change.

6-4. Application of the Disgust Induction Technique (Session Twelve):

In this session, the Disgust Induction Technique was introduced to augment participants’ motivation to reduce Facebook usage. Participants were instructed to visualize severe negative consequences resulting from excessive Facebook use, thereby eliciting an aversive emotional response to the behavior. The outcomes are summarized in the table below:

Table N°7: Summary of Results from the Disgust Induction Technique Over Five Sessions (Source: Compiled by the researchers, 2024)

Case	Imagined Worst-Case Scenarios
Case 1	The participant visualized becoming a visually impaired, unattractive woman with dark circles under her eyes.
Case 2	The participant visualized an unattractive woman. To reinforce this image, she searched online for depictions of unattractive individuals, printed these images, and placed them around her room.
Case 3	The participant imagined becoming a mentally unstable, impoverished individual with poor hygiene, rejected by society. He attributed this to the insomnia and depression stemming from parental abandonment due to academic failure.

The disgust induction exercises were repeated over four sessions. The observed progress was as follows:

- **Case 1:** Demonstrated significant improvement, reporting greater concentration at school and expressing a desire to replace her smartphone with a basic mobile device.
- **Case 2:** Achieved a balanced routine between Facebook use and studying, limiting her social media activity to academic interactions, such as exchanging questions and answers.
- **Case 3:** Although progress was slower, the participant reduced Facebook use at night to just 30 minutes and reported improvements in sleep quality, indicating incremental gains.

- Termination of Therapy:

Toward the end of the intervention, participants were prepared for therapy termination, with efforts focused on maintaining the behavioral changes achieved:

- **Case 1:** Therapy concluded in session 16 after the participant replaced her smartphone with a basic mobile phone and restricted Facebook use to holidays, averaging two hours per day.
- **Case 2:** Therapy ended in session 19. The participant continued to limit Facebook use to academic purposes, showing sustained progress.
- **Case 3:** Therapy concluded in session 21 after the participant completely abandoned Facebook use. He replaced this habit with healthier activities, such as reading novels and joining football clubs. This shift contributed to improved academic performance, including a score of 12/20 in his studies, and better relationships, particularly with his Islamic Studies teacher.

Conclusion:

This therapeutic intervention underscores the efficacy of behavioral therapy in addressing social media addiction, specifically excessive Facebook use. Behavioral therapy, grounded in the principles of behavior modification, seeks to eradicate maladaptive symptoms by recognizing that social media addiction is a learned behavior. Thus, maladaptive behaviors, such as compulsive Facebook use, can be unlearned and replaced with healthier behavioral patterns, ultimately fostering positive psychological adjustment and enhancing subjective well-being (Ali, 2001, p. 34).

The study demonstrated the gradual effectiveness of behavioral interventions in reducing and ultimately eliminating Facebook addiction among the three participants. Notably, variations in therapeutic responsiveness were observed, particularly in Case 3, where slower progress was attributed to individual differences, including the severity of addiction and the reinforcement derived from the behavior. The three therapeutic techniques employed in this intervention are detailed below:

- Supportive and Counter-Evidence Technique:

This cognitive-behavioral technique engages participants in systematically evaluating the advantages and disadvantages of their behavior. In this study, participants were guided to critically appraise the perceived benefits and detrimental consequences of Facebook use. This cognitive restructuring process facilitated an increased awareness of the adverse impacts of excessive social media use, ultimately fostering motivation for behavioral change.

- Guided Imagery of Potential Scenarios:

Leveraging the power of imagination, this technique prompts individuals to visualize hypothetical, often adverse, future outcomes associated with their current behavior. In this study, participants imagined various catastrophic outcomes resulting from excessive Facebook use. This technique effectively engaged their emotional processing and enhanced their ability to anticipate long-term consequences, thereby reinforcing their commitment to reducing maladaptive behavior.

- Disgust Induction Technique:

By using aversive conditioning, this approach links maladaptive behaviors to unpleasant or distressing stimuli. Participants were encouraged to associate their Facebook use with self-selected, disgust-inducing mental images. This method accelerated therapeutic progress by eliciting aversive emotional responses to the behavior, thereby weakening its reinforcing properties and promoting rapid behavioral extinction.

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