

Internet Addiction as a Maladaptive Coping Phenomenon: Traditional Narrative Review with Chronological-Thematic Orientation

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Abstract: Internet Addiction has emerged as a significant behavioural concern over the past few decades. This narrative review traces the conceptual, empirical and clinical developments in internet addiction research from 1995 to 2026. Early discussions compared excessive internet use with substance dependence and pathological gambling, leading to debates regarding diagnostic legitimacy. Subsequent research focused on psychometric validation, cognitive-behavioural models, neurobiological correlates and structured treatment approaches. Evidence consistently demonstrated strong associations between internet addiction and psychopathologies such as depression, anxiety, stress, loneliness, ADHD and impaired emotional regulation. Indian and cross-cultural studies further established its global relevance. Recent investigations highlight mediating and moderating mechanisms, including resilience, hope, prosocial behaviour, impulsivity and peer relationships. The review suggests that internet addiction may function as a maladaptive coping strategy masking underlying psychological distress. Understanding its developmental pathways and protective factors is essential for effective prevention and intervention strategies.

Keywords: Internet Addiction, Problematic Internet Use, Depression, Anxiety, Psychopathology, Cognitive Behavioural Therapy, Resilience, Adolescents, Narrative Review.

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I. INTRODUCTION

The Internet is now an indispensable part of human life. It affects communication, education, occupation and social life. While its benefits are clear, the internet is also feared by psychologists and mental health practitioners to be overused and misused. Internet Addiction, also known as Problematic Internet Use, is a concept that has constituted a behavioural problem causing emotional and role dysfunction. For the past 30 years, scholars have debated about its conceptual status, diagnostic criteria and underlying mechanisms. As research extended across different cultures, age ranges, and clinical populations, evidence continued to swell linking internet addiction to depression, anxiety, stress and other psychopathologies. Accordingly, we review the evolution of internet addiction historically and conceptually and look to identify several areas in which current research is focused concerning it from 1995 to 2026.

This review advances the central argument that Internet Addiction is not merely a behavioural excess but can be more accurately conceptualised as a maladaptive coping

mechanism. Individuals experiencing psychological distress, including stress, anxiety, depression, and interpersonal difficulties, may increasingly rely on internet use as a means of emotional regulation and avoidance. Over time, this compensatory behaviour becomes reinforced through immediate psychological relief, leading to habitual and eventually compulsive patterns of use. The proposed pathway suggests a progression from underlying psychological vulnerability to emotional dysregulation, followed by excessive internet engagement and subsequent functional impairment. By integrating evidence across cognitive-behavioural, neurobiological, and psychosocial domains, this review aims to establish a unified explanatory framework for understanding Internet Addiction as an adaptive response that becomes maladaptive over time.

➤ Approach to Literature Selection

This study adopts a traditional narrative review approach to synthesise the conceptual, clinical, and psychosocial developments in Internet Addiction research. Relevant literature was identified through searches of major academic databases, including PubMed, Google Scholar, and

ProQuest, supplemented by additional academic platforms to ensure comprehensive coverage of relevant literature. The search process utilised key terms such as *Internet Addiction*, *Problematic Internet Use (PIU)*, *Internet Gaming Disorder (IGD)*, *behavioural addiction*, and *digital addiction*, along with combinations of psychological variables including depression, anxiety, stress, and emotional regulation.

Studies published between 1996 and 2026 were considered for inclusion to capture the historical evolution and contemporary developments in the field. Priority was given to peer-reviewed journal articles, systematic reviews, meta-analyses, and seminal theoretical contributions. Selection was guided by relevance to the conceptualisation of Internet Addiction as a maladaptive coping mechanism, as well as its cognitive, neurobiological, and psychosocial correlates.

Given the narrative nature of the review, the selection process was interpretative rather than exhaustive, aiming to provide a coherent and theoretically informed synthesis of the most influential and representative literature in the domain.

II. LITERATURE REVIEW

➤ *Internet Addiction: Early Conceptual Foundations*

The discussion over internet addiction started in 1995 when Ivan Goldberg first brought up “Internet Addiction Disorder” on the psychiatric bulletin board PsyCom.net. His intent was satirical, but his responses were not. Frequent users characterised their excessive use of the net as similar to substance abuse. Goldberg adapted DSM IV's criteria of substance abuse, which sparked debate within psychology about behavioural excess and control (Ajithabai, 2024).

Addictive internet use was identified as a psychopathological condition in 1996 by Young. She described her criteria on pathological gambling and suggested that in some users and they became tolerant, withdrawal-symptomatic, and functionally impairing (Young, 1996). Griffiths coined the term 'Technological Addictions' and makes internet addiction just one of many forms. He maintained that there are common aspects of behavioural addictions which include salience, mood changes, tolerance and withdrawal symptoms, conflict and relapse (Griffiths, 1996). Reilly also described internet addiction as a new disorder which may soon be entering the medical lexicon. She explained that internet addiction was the same type of condition in its early stages as drug or alcohol addiction, and over time will probably turn into an officially recognized disease (O'Reilly & Mohan, 2023). Shaffer is the originator of the reward deficiency hypothesis, and proposed that those lacking natural rewards would compensate with internet use in order to find immediate reward (Shaffer, 1996).

Brenner, 1997 carried out a study using a survey of 563 users and found time management problems, craving for the medium and withdrawal symptoms are related to internet addiction. Young's paper, "Internet Addiction: The Emergence of a New Clinical Disorder," was published as an article in *Cyber-Psychology and Behaviour*. Between 396

dependent users and 100 non-dependent users who completed her study, she found that those with a dependence problem said they felt lonelier and social isolated. Others turned to the internet for fulfilment of real-world needs that went unmet (Young, 1998).

In 1996, Griffiths warned that too much use was never necessarily addiction. He emphasized that there has to be dysfunction in order to diagnose a disorder (Griffiths, 1996). The early time frame shaped three themes: For the first method of analysis, behavioural pattern was that Internet addiction had a structure similar to substance and gambling disorders. Second, pre-existing pathology, e.g. loneliness and depression seemed important. Third, there were doubts about the legitimacy of diagnosis. These debates provided the groundwork for the development of empirical work in the next decade.

➤ *Synthesis of Findings*

Across early studies, there is consistent agreement that excessive internet use shares behavioural characteristics with substance and gambling addictions, particularly in terms of salience, tolerance, and withdrawal-like symptoms. However, significant conceptual ambiguity existed regarding its diagnostic legitimacy, with some researchers arguing that excessive use alone does not constitute addiction without functional impairment. A key point of convergence is the recognition of underlying psychological vulnerabilities, such as loneliness and depression, as predisposing factors. The field during this phase was largely exploratory, with debates focusing on classification rather than empirical validation, indicating an evolving shift from conceptual speculation to structured scientific inquiry.

➤ *Expansion of Measurement and Cognitive Models*

Research conducted in 2000 found a sample of 277 undergraduate students and studied the pathological use of the internet. Their results revealed that their pathological users were lonelier and socially inhibited. The theme of escapism was brought out. The focus had moved away on the sheer frequency of use to focus on psychosocial vulnerability. It implied that internet dependence could not be reduced merely to technological dependence but a behavioural reaction on interpersonal discomfort (Morahan-Martin & Schumacher, 2000).

In 2001, a pathological internet use cognitive behavioural model was put forward by Davis. He distinguished between problematic internet use that is specific, e.g. online gambling or pornography, and generalised problematic internet use, where people used internet resources in a general way. Davis postulated that maladaptive cognitions were important. In his opinion, the current psychopathology like depression might escalate internet abuse. He suggested cognitive behavioural therapy and structured observation of the thoughts and behaviour (Davis, 2001). Another study also highlighted the importance of changing diagnostic criteria in the same year. On their part, they said that the measures of pathological gambling were being directly transferred without proper conceptual

differentiation. Their contribution was the initial attempt of the field to perfect the assessment tools (Beard & Wolf, 2001).

The Generalised Problematic Internet Use Scale was formulated by Caplan in 2002. The reliability and validity of his study were evidenced by his undergraduate students. Caplan associated reckless internet use with low self-regulation and psychosocial agony. There was a close relationship between depression, mood instability, and low self-esteem. This was a shift towards using theory-based measurement instead of the borrowed criteria (Caplan, 2002). In the same year, another research stated that the sense of worthlessness, loneliness and insecurity related to internet addiction. Online interaction was seen to help people cope with anxiety and emotional pain (Choi et al., 2019).

One of the first studies on internet addiction among school students in India was done in 2003 by Nalwa and Anand who studied the subject using a sample size of 16 to 18 years. There were dependent and non-dependent users. Reliant students work later, lose sleep time using it late into the night and stated that life without the internet would be boring. They also rated much lower on the measures of loneliness. This paper was significant in that it ends up showing that internet addiction was not exclusive to the western populations. It also predetermined early Indian evidence of the addiction and vulnerability on the emotional scale (Nalwa & Anand, 2003). In 2003, a study also talked about other terms to include, as pathological internet use, and compulsive internet use. This was a manifestation of the persistence of doubt as regards nomenclature (Uddin et al., 2016).

By the year 2003, the field has advanced with respect to descriptive accounts to structured models. Researchers started to realise the fact that the internet addiction was closely intertwined with loneliness, depression as well as self-esteem problems. Meanwhile, India made its presence in the world of research with empirical evidence, which implied the global applicability of the phenomenon (LaRose et al., 2003).

➤ *Synthesis of Findings*

Research in this phase consistently highlights the role of psychosocial vulnerability, particularly loneliness, low self-esteem, and emotional distress, in the development of problematic internet use. The introduction of cognitive-behavioural frameworks marks a significant theoretical advancement, with strong agreement on the role of maladaptive cognitions in maintaining addictive behaviours. However, inconsistencies remain in diagnostic criteria and measurement approaches, reflecting ongoing conceptual refinement. The field evolves from descriptive accounts towards structured models, indicating a transition from observation to theory-driven explanation.

➤ *Psychometric Validation and Clinical Refinement*

In 2004, Widyanto and McMurran tested the psychometric properties of Young's Internet Addiction Test. Their confirmatory factor analysis defined six dimensions involving salience, excessive use, neglect of work, anticipation, lack of control and neglect of social life

(Widyanto & McMurran, 2004). The study showed acceptable reliability and validity. Problems were more prevalent reported among younger users and newer adopters. This all helped to improve the empirical basis of assessment and led the field in a direction away from description and toward measurement. Yoo also studied internet addiction disorder and attention deficit hyperactivity symptoms in elementary school students in the same year. Large and selective impulsivity-associated were described in their results. This was important in taking attention away from emotive damage towards neurodevelopmental susceptibility on the grounds of internet use disorder (Yoo et al., 2004). In 2004, Young subsequently described internet addiction as a novel disorder. She spoke of its effects on students, couples and employees. Problem use was also defined as spending 40–80 hours per week on the Web. She also said too much internet use could act as a release from depression, anxiety and stress (K. S. Young, 2004). Beard in 2005 used semi-structured interviews with modified criteria and tried to separate compulsive use of the internet from pathological gambling. His endeavour was thus a very explicit one at a moment when the construction of an efficient diagnostic nomenclature is still an open process (Beard, 2005).

The largest telephone survey to date of American adults was carried out by Aboujaoude in 2006. A notable minority was reported to have excessive internet use. It was also observed that the consumptions of impulsive control disorders and obsessive-compulsive features were associated with it. The authors recommended more comorbidity research (Aboujaoude et al., 2006). Atmaca published in 2007 a case of problematic internet use that responded well to SSRI and quetiapine combination. Although limited to a case report, this was an early example of drug innovation (Atmaca, 2007). Leung studied of stress life events and adolescent motivations for internet use. The most common reasons for use were to regulate mood and to receive social sanction (Leung, 2007). The year also saw an elaboration of Caplan's model based on the proposal that problematic internet use represented poor self-regulatory competence due to depression and loneliness. By 2007, we were beyond mere prevalence. Scientists were studying impulsivity, stress, cognition and even the use of drugs to control self-harm. The story started to become less about a "technological addiction", and more about internet use as a behavioural symptom of deeper psychological ills (Caplan, 2007).

➤ *Synthesis of Findings*

Findings during this period show strong convergence on the need for reliable and valid assessment tools, with psychometric validation becoming a central focus. There is consistent evidence linking Internet Addiction with comorbid psychological conditions, including ADHD, depression, and impulsivity. At the same time, emerging clinical approaches begin to differentiate Internet Addiction from other behavioural disorders. Some inconsistencies persist in defining diagnostic boundaries, but the field demonstrates clear progression towards empirical standardisation and clinical applicability.

➤ *Neurobiological Framing and Treatment Development*

In 2008, Bostwick and Bucci studied about internet sex addiction and related the addictive behaviour to malfunction in the reward system in the brain. They made emphasis on dopamine in supporting compulsive engagement. The administration of naltrexone in the reduction of the addictive urges was also reported by the authors. This study was also added to the growing neurobiological discourse though it was grounded on a case study of a clinical scenario and reinforced parallels to substance dependence (Bostwick & Bucci, 2008).

A large population-based study using the Diagnostic Questionnaire by Young was done by Bakken in 2009 in Norway in 3399 adults. They discovered that such demographic factors like age, gender, education, and financial condition were found to have an effect on problematic internet use. Increased scores were also related to depression and sleep disturbances. The paper was notable in the sense that it went beyond the student group and proved that internet addiction was observable in across ages (Bakken et al., 2009). The diagnosis and treatment of internet addiction was re-expressed by Young in 2009. She highlighted cognitive distortions, negative core beliefs and negative maladjusted thinking patterns. The primary treatment approach suggested was the cognitive behavioural therapy. Young maintained that a pathological use of the internet had structural analogy with gambling disorder and that it had to be structured into producing therapeutic treatment (K. Young, 2009). This was suggested by a study conducted by Tao who set up official diagnostic guidelines of internet addiction in 2010. They tried to harmonise the symptom duration, tolerance, withdrawal and functional impairment. Their suggestion was in line with the increasing need of nosologically clarity (Tao et al., 2010).

An assessment was conducted of group cognitive behavioural therapy in a population of adolescents aged 12-17 years in Shanghai. Their randomised controlled experiment showed positive results on the behavioural control and emotional regulation, post-intervention. Results of follow-up indicated long-term benefits. By the year 2010, the internet addiction studies had reached a more mature stage. Now, neurobiological explanations, organized diagnostic criteria and controlled studies of treatments became part of the literature. Existence was no longer the point of debate in the field. It was trying to systematize, quantify and even treat the condition (Du et al., 2010).

➤ *Synthesis of Findings*

Studies in this phase consistently support the neurobiological basis of Internet Addiction, particularly its association with reward system dysfunction and dopaminergic activity. There is strong agreement on parallels with substance-related addictions, especially in terms of reinforcement mechanisms. However, debates continue regarding its classification due to the absence of chemical dependence. The emergence of structured treatment approaches, particularly cognitive behavioural therapy, reflects a shift towards clinical intervention, indicating maturation of the field from theoretical exploration to applied practice.

➤ *Diagnostic Debate and Global Expansion*

In 2011, Young proposed a model of structured treatment, which he has named CBT-IA. This model was made up of three phases namely behaviour modification, cognitive restructuring and harm reduction therapy. Young contended that there was a need to have specific intervention over internet addiction instead of generic counselling. The model was not only outpatient but was also inpatient and was one of the first organised protocols on the condition in a clinical setting (K. S. Young, 2011). Later the same year, neuroimaging evidence indicating that internet addicts displayed differences in their brain according to those in drug addicts. Changes were observed in the regions related to processing of rewards and controlling impulse. These results reinforced the thesis that internet addiction could have neurobiological similarities to other behavioural addictions (Yuan et al., 2011).

Research conducted among adolescents discovered that internet addiction was linked to substance use behaviours. They indicated that internet abuse may be a precursor to subsequent addictive behaviours (Fisoun et al., 2012). Another study also found a robust positive correlation between social anxiety and problematic use of the internet in the same year. People seemed to choose to communicate in online setting as a less harmful alternative to meeting face to face. The study and clinical practice of classification, neurobiology, prevalence, and the method of treatment were comprehensively discussed by Cash and colleagues. Their analysis corresponded to the increase of the literature in a short period of time (Lee & Stapinski, 2012).

In 2013, Kuss, Griffiths and Binder have organized the research study with university students in England. They also indicated a prevalence rate of about three per cent and the hazards were personality traits and certain internet activities. The Internet Gaming Disorder was classified as a condition in need of further research in the same year by the American Psychiatric Association and was assigned a code in the third section of DSM-5. This ruling was incomplete but short of full diagnostic status (D. J. Kuss et al., 2013).

A systematic review of epidemiological studies that were published in 2014, reported discrepancies in the rates of prevalence and the measurement instruments (D. Kuss et al., 2014) and studies critically assessed the currently used criteria and contended that evidence was still wanting to be completely useful in diagnostic classification (Van Rooij & Prause, 2014).

➤ *Synthesis of Findings*

This phase is characterised by ongoing debates regarding diagnostic classification, with partial consensus emerging through the inclusion of Internet Gaming Disorder in DSM-5. There is consistent evidence linking Internet Addiction with social anxiety, substance use, and personality traits. However, variability in prevalence rates and measurement tools reflects methodological inconsistencies. The field evolves towards global recognition, with increased cross-cultural research highlighting its widespread relevance and complexity.

➤ *Conceptual Consolidation and Strengthening of Indian Evidence*

Liu investigated the concept of multi-family group therapy among internet-addicted adolescents. They intervened in many sessions with the adolescents and their parents. These findings indicated that there were better communication and satisfaction of psychological needs. The paper has mentioned the role of family dynamics and how internet addiction cannot be dealt with without the social environment (Liu et al., 2015). The same year, internet addiction was studied through a psychodynamic and transactional analysis. Shorrock hypothesised that the problem with attachment during childhood might be one of the causes of compulsively engaging with the Internet. According to this perspective, the use of the internet is a kind of substitute for unfulfilled needs in the relations. This point of view enlarged the theoretical knowledge of cognitive-behavioural frameworks (Shorrock, 2015).

Dalal and Basu were able to reflect on twenty years of internet addiction research. They posed four major questions, such as whether it is a disorder to be dealt with, whether it is an addictive disorder, the substance or service to which the addict is addicted to and how it is to be diagnosed. They have cautioned that classification should be done cautiously and urges one not to be prematurely enter into formal diagnostic systems. This was a major input to the Indian psychiatric discourse (Dalal & Basu, 2016).

A study in 2017 looked at high school students in Tehran and the results indicate that there is a correlation between internet addiction symptoms and symptoms of psychosis and anxiety. The results went in line with the tendency toward comorbidity (Mohammadkhani et al., 2017).

The research by Kumar and Mondal was done on a sample of college students at Kolkata, showed that internet addiction was strongly related to depression, anxiety, low self-esteem as well as interpersonal difficulties. They have mentioned that students who experience socially anxious tend to be the most vulnerable (Kumar & Mondal, 2018). Similarly, Bisen and Deshpande gave a review in the same year and highlighted that internet addiction symptoms are much closer to substance addiction. They emphasized how the need of structured treatment should be approached globally (Bisen & Deshpande, 2018). Internet addiction was also reported to have negative effects on physical and mental health reported by Cruz and colleagues in Brazil, which demonstrates the broadening of the geographical scale of the issue (Cruz et al., 2018).

➤ *Synthesis of Findings*

Research during this period consistently reinforces the association between Internet Addiction and psychological distress, including depression, anxiety, and interpersonal difficulties. There is growing agreement on the role of family dynamics, attachment issues, and cultural factors in shaping addictive behaviours. However, debates regarding diagnostic classification persist. The inclusion of Indian and non-Western studies marks an important shift towards cultural

contextualisation, expanding the applicability of existing theoretical models.

➤ *Pandemic Context, Neurobiological Continuity, and Global Prevalence*

In 2019, studies drew parallels between internet addiction and substance addiction and stated that they have similar central behavioural patterns including tolerance, withdrawal, loss of control, and functional impairment. They reported that the neuroimaging evidence indicated structural alterations of the ventral striatum and prefrontal cortex. They have, however, also recognised the lack of physiological intoxication. The present research supported the neurobiological continuity thesis and was conceptually cautious (Kurniasanti et al., 2019). A cross-sectional study on undergraduate students documented that moderate to severe internet addiction was correlated with depression, paranoia, psychotic symptoms and suicidality. The magnitude of the research made the evidence on the relationship between internet addiction and severe psychological distress more solid (Guo et al., 2020).

A review of the existing research highlighted impulsivity, aggression, and neuroticism as the risk factors and showed that cognitive behavioural therapy is the most substantiated intervention (Bickham, 2021). A study was also carried out in Ethiopia by Zenebe among university students. They mentioned the high rates of prevalence and indicated that alcohol consumption and psychological distress are related factors. This meant that addiction to the internet was no longer constrained to a certain cultural or economic set-up (Zenebe et al., 2021).

Milkova examined Czech universities' students and discovered gender variations in the patterns of symptoms. Male students complained of time management issues and problems with other people whereas the female students showed more tolerance related issues (Milková et al., 2022). A study was carried out among the students of colleges in the Jammu region in India. They used the DASS-42 and the data given by Young on a 1-4 scale to determine that there were positive correlations between internet addiction and depression, anxiety, and stress. They underscored the importance of preventive methods in learning institutions (Kumari et al., 2022).

➤ *Synthesis of Findings*

Findings in this phase demonstrate strong consistency in the association between Internet Addiction and severe psychological outcomes, including suicidality and psychiatric symptoms. Neurobiological evidence continues to support its classification as a behavioural addiction, although conceptual caution remains. The global expansion of research confirms its cross-cultural prevalence, while emerging risk factors such as impulsivity and aggression highlight increasing complexity in its aetiology.

➤ *Contemporary Developments and Integrative Perspectives*

One study tested the effects of internet addiction on the mental health of adolescents by reviewing existing literature

(P. Powale, 2023). She concluded that depression, anxiety and a low level of psychological well-being were strongly associated with excessive internet use. The paper gave importance to parents and educators in enhancing awareness and responsible digital behaviour. In 2023, a systematic review and network meta-analysis conducted to determine the efficacy of various interventions against internet addiction. They analysed 57 randomised controlled trials randomly and indicated that the promise was found in combined modalities like repetitive transcranial magnetic stimulation with cognitive behavioural therapy. This research marked the change towards a combined and multimodal approach to treatment (Y. Zhu et al., 2023). Further used network analysis to study the relationship between internet addiction, online social anxiety, fear of missing out, and interpersonal sensitivity in college students. They concluded that the key bridging symptoms were anxiety and fear of missing information. This methodological breakthrough proved that there are multiple mechanisms behind internet addiction symptoms, and they are not singular characteristics (X. Zhu et al., 2024). An article published in 2024, which reviewed research on the topic since 1995, suggested that internet addiction can be a veil to problems of depression, loneliness, nervousness, etc. Based on the therapeutic experience, she recommended that, when the underlying psychological problems are resolved, the compulsive use of the internet would decrease automatically. This school of thought brought back a clinically based humanistic viewpoint of the phenomenon (Ajithabai, 2024).

➤ *Synthesis of Findings*

Recent studies consistently emphasise the multifactorial nature of Internet Addiction, integrating cognitive, emotional, and social mechanisms. There is strong agreement on the effectiveness of combined treatment approaches, including cognitive behavioural therapy and neurostimulation techniques. At the same time, new methodologies such as network analysis reveal complex interrelationships among symptoms. The field is evolving towards integrative and multidimensional frameworks, moving beyond single-cause explanations.

➤ *Mechanisms, Moderators, and Mental Health Correlates of Internet Addiction*

A field study of 666 Spanish adolescents (age 14-18) explored problematic Internet and social media use and cybervictimisation. It was shown that 15.8% were vulnerable to addiction, 27.2% had been victims of cyberbullying, 14.7% sexted and 34.7% groomed. The cybervictimisation levels were more aggressive in females. The paper highlights that it is time to focus on the risk of being online and preventing it among adolescents through prevention and digital literacy programs (Marcos et al., 2025).

This gave a 2025 meta-analysis of 41 studies that investigated correlations between Internet Addiction Disorder (IAD), psychiatric symptoms, and sleep disturbances. Reciprocal correlations between pooled results and depression (0.39), anxiety (0.30), stress (0.34), and sleep problems (0.26) were found to be moderate and positive. These results suggest a high risk of emotional distress and low

quality of sleep in people with problematic use of internet, and, therefore, screening, prevention, and combined psychological interventions at an early age are crucial (Sun et al., 2025). Students with 390 psychiatric-major medical students (2025 cross sectional study) indicated a 17.7% prevalence of Internet Addiction (IA) (mean Y-IAT = 37.57). IA had positive relations with impulsivity, depression, anxiety, academic stress, poor peer relationship, and bullying. There was a prediction of higher academic years on lower IA whereas this was mediated by less impulsivity (36.6) and depressive symptoms (12.8%). The results indicate that psychological literacy can be protective, and social problems could be major risk factors (Lu et al., 2025).

In a study that explored the predictive value of negative life events on Internet addiction as mediated by prosocial behaviour, a 2025 study of 259 Chinese undergraduates found that physical exercise was a moderator with negative life events predicting Internet addiction. Prosocial behaviour was a significant mediator of relationship and risk routes were moderated differentially by disparate levels of exercise. The results place stress-coping strategies into focus and place an emphasis on encouraging prosocial activity and physical exercise as a way of lowering the susceptibility to Internet addiction (Huang et al., 2025). In a 2025 study in the case of 262 Italian youth, it was discovered that affective temperaments and emotion regulation had end moderation by Internet Addiction severity. An increase in IA attenuated the association between depressive/anxious temperaments and cognitive reappraisal and anxious temperament-suppression. There is an indication that problematic Internet use can provide a temporary buffer that regulates problems according to temperament (Mento et al., 2025).

A study conducted in 2026, on scale investigation is the first of its kind to separate non-pathological use of leisure screen time from IGD and to highlight that both are independently associated with an array of mental health problems such as depressive mood, psychological distress, paranoia, insomnia and suicidal ideation among adolescents. Predictive relationships of IGD were stronger than those for screen time indicating that clinical consequences are associated with addictive behaviour, rather than sheer quantity. The scale itself and the methodology it represents provide important epidemiological evidence on an association between specific addictive behaviours and psychopathology (Deng et al., 2026). This is cross-sectional study investigates, in 2026 participating students, the reasons that Internet addictive burden affects social adjustment as a mediator role for both interpersonal and developing determinants by using of the Bioecological Model. With the sequential mediations of peer relationships and self-identity, it enhances your argument concerning psychosocial mechanisms in support MAPT's functional results and relates closely to its developmental context that you drew from adolescence studies (Liao et al., 2026). This 2026 preliminary empirical investigation in colleges from China (n = 836) has found that psychological resilience and hope served as chain mediating mechanisms between Internet addiction and depressive symptoms. The internal psychological resources that mediate the negative effects of PIU (Chen et al., 2026).

The historical and methodological evolution of Internet Addiction research from 1995 to 2026 is synthesised in Table 1.

➤ *Synthesis of Findings*

Current evidence shows high consistency in the association between Internet Addiction and mental health variables such as depression, anxiety, stress, and sleep

disturbances. There is increasing agreement on the role of mediating and moderating variables, including resilience, prosocial behaviour, and physical activity. However, variability exists in the strength and direction of these relationships across populations. The field is clearly evolving towards dynamic, interaction-based models that conceptualise Internet Addiction as a complex psychosocial phenomenon rather than a singular disorder.

Table 1 Evolution of Internet Addiction Research: Conceptual, Methodological, and Clinical Progression (1995–2026)

Phase	Key Focus	Major Contributors	Methodological Shift	Clinical Implication
1995–1999	Conceptual debate	Young (1996, 1998), Griffiths (1996), Shaffer (1996)	Analogy with substance/gambling models	Diagnostic legitimacy questioned
2000–2007	Measurement & cognitive models	Davis (2001), Caplan (2002, 2007)	Development of psychometric scales	Foundations of cognitive behavioural therapy
2008–2013	Neurobiology & treatment development	Young (2009, 2011), Tao (2010), Yuan (2011)	Neuroimaging studies, early RCTs	Emergence of structured treatment models (CBT-IA)
2014–2019	Epidemiology & diagnostic debates	Kuss (2014), Dalal & Basu (2016), Van Rooij (2014)	Systematic reviews, cross-cultural studies	Continued diagnostic caution and global recognition
2020–2026	Integrative models & advanced analytics	Zhu et al. (2023, 2024), Sun et al. (2025), Deng et al. (2026), Lu et al. (2025)	Meta-analysis, network analysis, large-scale datasets	Shift towards integrative models, early screening, and prevention-focused interventions

III. THEMATIC SYNTHESIS OF INTERNET ADDICTION RESEARCH

➤ *Mechanistic Pathway of Internet Addiction as Maladaptive Coping*

Internet Addiction can be understood through a sequential psychosocial mechanism in which underlying psychological distress initiates a cycle of maladaptive coping. Individuals exposed to chronic stress, emotional instability, or interpersonal deficits often experience impaired emotional regulation. In response, the internet provides an accessible and immediate means of mood modification, social compensation, and cognitive distraction. This leads to repeated engagement driven by negative reinforcement, where temporary relief from distress reinforces continued use.

Over time, this pattern evolves into behavioural dependency, characterised by diminished self-control, increased tolerance, and functional impairment. Neurobiological evidence supports this pathway, indicating that repeated engagement activates reward circuitry and dopaminergic reinforcement mechanisms similar to other behavioural addictions. At the same time, cognitive distortions, such as perceived social competence in online environments and avoidance of real-world challenges, further sustain the cycle.

Importantly, empirical studies consistently converge on this mechanism, demonstrating strong associations between Internet Addiction and psychological variables such as depression, anxiety, stress, and loneliness, while also identifying moderating factors such as resilience, prosocial behaviour, and social support. This integrative pathway

supports the conceptualisation of Internet Addiction as a maladaptive coping response rather than an isolated disorder.

➤ *Internet Addiction as a Maladaptive Coping Mechanism*

A growing body of research conceptualises Internet Addiction as a maladaptive coping response to underlying psychological distress. Individuals often engage in excessive internet use as a means of regulating negative emotions such as anxiety, loneliness, and depressive mood. The mechanism of escapism emerges consistently across studies, where online environments provide temporary relief from real-life stressors and interpersonal difficulties. Over time, this behavioural pattern becomes reinforced, leading to dependency. Empirical findings indicate that individuals with poor emotional regulation and high stress vulnerability are particularly prone to using the internet as a compensatory strategy, thereby supporting the conceptualisation of Internet Addiction as an avoidance-based coping mechanism.

➤ *Cognitive-Behavioural Mechanisms*

The cognitive-behavioural framework provides one of the most robust explanations for problematic internet use. Davis's model of pathological internet use emphasises the role of maladaptive cognitions, including negative self-beliefs, cognitive distortions, and dysfunctional attitudes towards online interactions. These cognitions interact with behavioural reinforcement patterns, where excessive use is maintained through immediate psychological rewards. The distinction between specific and generalised problematic internet use further refines this model. Evidence consistently demonstrates that distorted thinking patterns, coupled with impaired self-regulation, significantly contribute to the onset and maintenance of Internet Addiction.

➤ *Neurobiological Correlates*

Neurobiological research has increasingly supported the classification of Internet Addiction within the spectrum of behavioural addictions. Studies employing neuroimaging techniques have identified alterations in brain regions associated with reward processing, impulse control, and decision-making, particularly within the prefrontal cortex and ventral striatum. Dopaminergic pathways appear to play a central role in reinforcing compulsive internet use behaviours, similar to mechanisms observed in substance-related addictions. Although the absence of chemical intoxication differentiates it from substance dependence, the neurobiological overlap provides strong support for its addictive potential.

➤ *Psychosocial Risk and Protective Factors*

Internet Addiction is strongly associated with a range of psychosocial risk factors, including depression, anxiety, stress, low self-esteem, and poor interpersonal relationships. These variables not only co-occur with problematic use but also act as predictors of its severity. At the same time, recent research has identified several protective factors, such as resilience, prosocial behaviour, psychological well-being, and social support. These factors appear to buffer the impact of stress and reduce reliance on maladaptive coping strategies. The interaction between risk and protective variables highlights the complexity of Internet Addiction and underscores the need for integrative models that incorporate both vulnerability and resilience frameworks.

IV. DISCUSSION

The present review aimed to synthesise the evolution of Internet Addiction research and to advance a theoretically integrated understanding of the phenomenon as a maladaptive coping mechanism. The findings across nearly three decades of research converge on a central proposition: excessive internet use is not merely a behavioural excess but represents a functional psychological response to underlying distress. This interpretation aligns with and extends existing theoretical frameworks by situating Internet Addiction within a broader coping-based and self-regulation paradigm.

A key contribution of this review lies in the integration of cognitive-behavioural, neurobiological, and psychosocial perspectives into a unified explanatory model. Cognitive-behavioural theories, particularly Davis's model, emphasise maladaptive cognitions and impaired self-regulation as core mechanisms. These are consistently supported by empirical findings demonstrating associations between problematic internet use and negative self-beliefs, loneliness, and emotional instability. At the same time, neurobiological evidence indicates that repeated engagement with online stimuli activates reward pathways, particularly dopaminergic circuits, reinforcing compulsive patterns of use. When considered together, these perspectives suggest that Internet Addiction is maintained through both cognitive distortions and reinforcement learning processes.

The maladaptive coping framework proposed in this review provides a coherent mechanism linking these

domains. Individuals experiencing psychological vulnerability, such as depression, anxiety, stress, or interpersonal difficulties, may turn to the internet as a means of emotional regulation, distraction, and social compensation. This behaviour is negatively reinforced through temporary relief from distress, creating a cycle of repeated use. Over time, this cycle leads to diminished self-control, increased tolerance, and functional impairment. The consistency of this pattern across diverse populations and methodological approaches strengthens the validity of this interpretation.

Importantly, the review also highlights the role of moderating and mediating variables in shaping this pathway. Factors such as resilience, prosocial behaviour, and social support appear to buffer the impact of stress and reduce reliance on maladaptive coping strategies. Conversely, impulsivity, poor emotion regulation, and negative life events exacerbate vulnerability. This interaction underscores the need to conceptualise Internet Addiction as a dynamic and multifactorial phenomenon rather than a linear disorder.

The findings also have significant implications for classification debates. While the inclusion of Internet Gaming Disorder in DSM-5 represents a partial recognition of behavioural addictions, the broader construct of Internet Addiction remains conceptually contested. The maladaptive coping framework offers a way to reconcile this ambiguity by shifting the focus from the behaviour itself to the underlying psychological function it serves. This perspective suggests that Internet Addiction may be better understood dimensionally, as part of a spectrum of coping-related behavioural dysregulation, rather than as a discrete categorical disorder.

From a clinical standpoint, the discussion reinforces the limitation of approaches that focus solely on reducing screen time. Interventions must address the underlying psychological drivers of excessive use, including emotional dysregulation, cognitive distortions, and unmet social needs. Evidence supporting cognitive behavioural therapy, combined with emerging approaches such as neurostimulation and integrative interventions, indicates that multimodal treatment strategies may be most effective. Additionally, the identification of protective factors supports the inclusion of resilience-building and social skill development in intervention programmes.

The increasing global and cross-cultural evidence further suggests that Internet Addiction is not confined to specific populations but represents a widespread psychosocial phenomenon. However, cultural factors may influence both the expression and interpretation of problematic use, highlighting the importance of culturally sensitive frameworks. The inclusion of Indian and other non-Western studies in this review contributes to a more inclusive understanding but also underscores the need for further culturally grounded research.

Finally, the evolution of research methodologies, including meta-analytic techniques and network analysis, reflects a shift towards more sophisticated and integrative

approaches. These developments provide new opportunities to examine complex interactions among psychological variables and to refine theoretical models. Future work should build on these advances to test the proposed maladaptive coping pathway using longitudinal and experimental designs.

In summary, the discussion supports the reconceptualisation of Internet Addiction as a maladaptive coping phenomenon embedded within broader psychological and social processes. This perspective not only integrates existing evidence but also provides a foundation for more targeted research, improved clinical interventions, and more coherent theoretical development in the field.

V. SUMMARY OF THE LITERATURE REVIEW

The cumulative evidence from 1995 to 2026 strongly supports the conceptualisation of Internet Addiction as a maladaptive coping mechanism rooted in underlying psychological distress. Across diverse populations and methodological approaches, consistent associations have been observed between problematic internet use and variables

such as depression, anxiety, stress, loneliness, and emotional dysregulation. The findings suggest a clear pathway in which individuals experiencing psychological vulnerability engage in excessive internet use as a means of emotional regulation and avoidance. This behaviour is reinforced through immediate psychological relief, leading to habitual use and eventual functional impairment. At the same time, the presence of protective factors such as resilience, prosocial behaviour, and psychological well-being moderates this relationship, highlighting the dynamic interplay between risk and protective mechanisms. This integrative understanding positions Internet Addiction not as an isolated behavioural disorder, but as a complex psychosocial phenomenon embedded within broader coping processes.

Based on the accumulated empirical evidence from 1995 to 2026, an integrative psychosocial model of Internet Addiction is proposed (see Figure 1). The model conceptualises Internet Addiction as a maladaptive coping response emerging from underlying psychopathology and mediated through cognitive-emotional dysregulation, while being moderated by resilience-based protective factors.

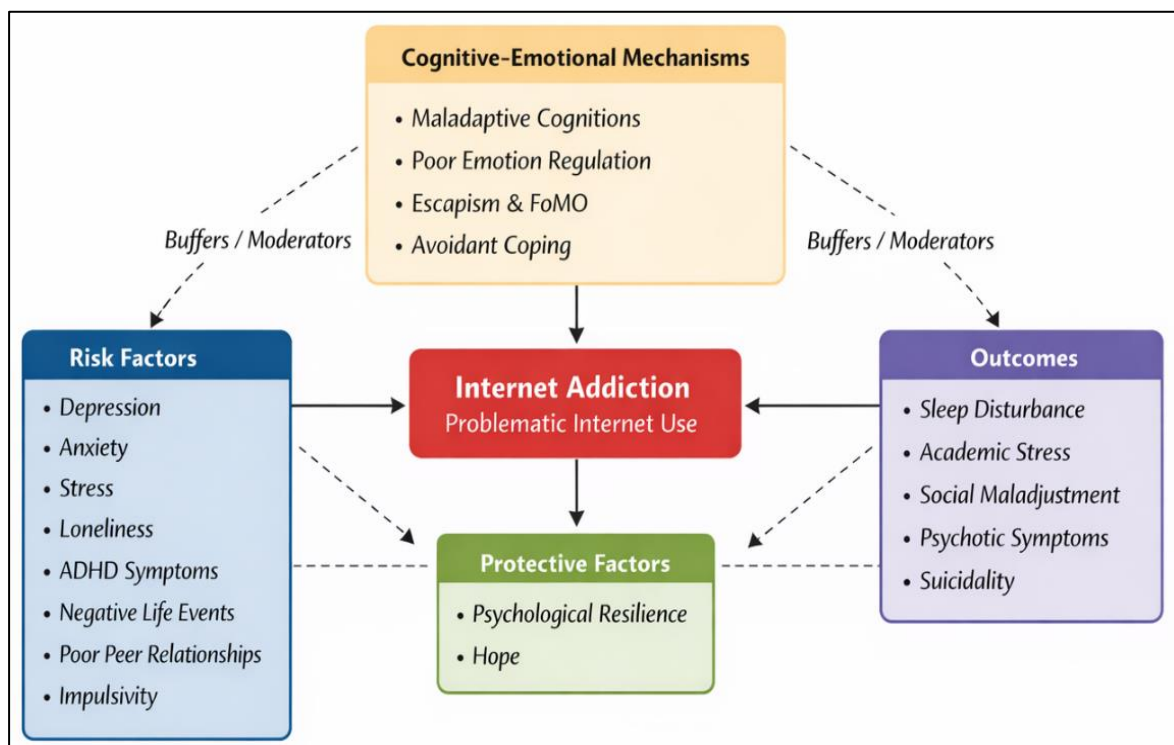


Fig 1 Integrated Psychosocial Model of Internet Addiction (1995–2026)

The integrated psychosocial model presented in Figure 1 illustrates the proposed mechanistic pathway of Internet Addiction as a maladaptive coping response. The model demonstrates how underlying psychological vulnerabilities, including depression, anxiety, stress, and interpersonal difficulties, contribute to emotional dysregulation. This dysregulation leads individuals to engage in excessive internet use as a form of avoidance and mood regulation. The reinforcing role of reward mechanisms, particularly through

immediate psychological relief, sustains repeated engagement and gradually results in behavioural dependency. The inclusion of moderating factors such as resilience, prosocial behaviour, and social support highlights the dynamic nature of this process. Overall, the figure provides a visual synthesis of the theoretical framework developed in this review and supports the central argument that Internet Addiction functions as a coping-based behavioural phenomenon.

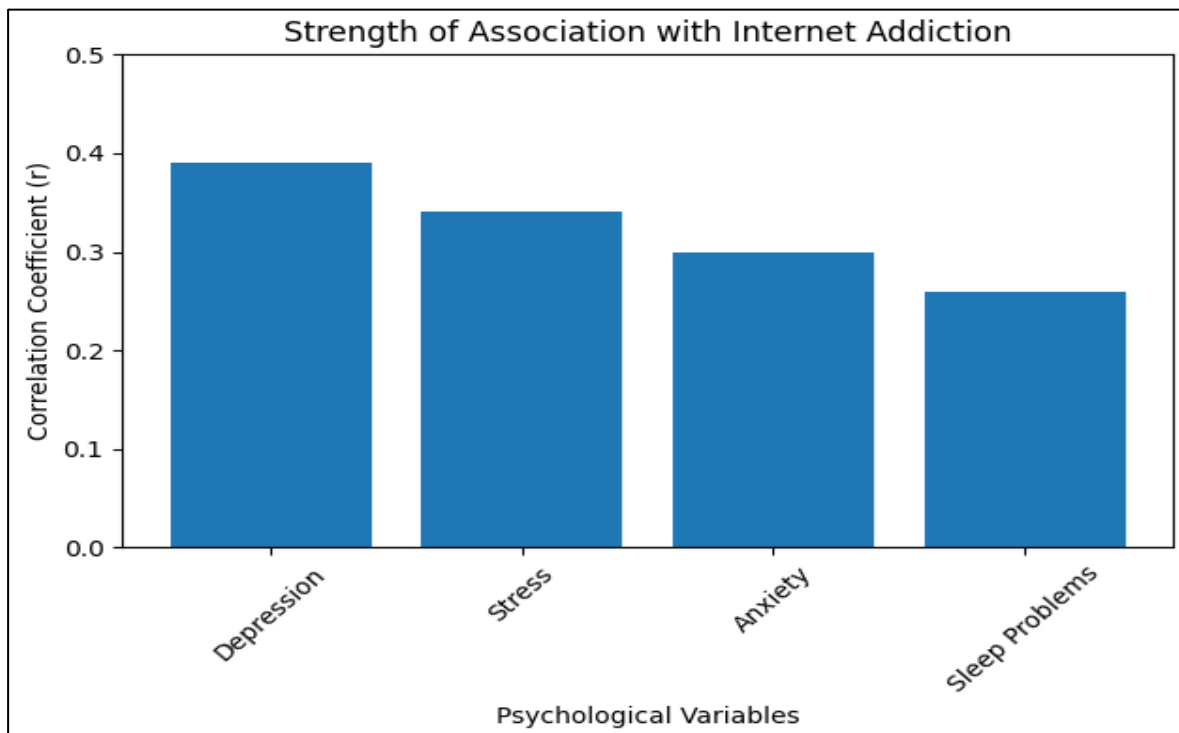


Fig 2 Strength of Association Between Internet Addiction and Psychological Variables

Figure 2 presents the strength of association between Internet Addiction and key psychological variables based on recent meta-analytic findings. The figure indicates moderate positive correlations between problematic internet use and depression, anxiety, stress, and sleep disturbances, with depression showing the strongest association. These findings provide empirical support for the maladaptive coping framework by demonstrating that individuals experiencing higher levels of psychological distress are more likely to engage in excessive internet use. The consistency of these associations across studies reinforces the interpretation of Internet Addiction as a response to underlying emotional difficulties rather than an isolated behavioural condition. Thus, the figure complements the proposed model by empirically substantiating the relationship between psychological vulnerability and problematic internet use.

VI. LIMITATIONS

Despite providing a comprehensive synthesis of Internet Addiction research, the present review is subject to several limitations. First, the study adopts a traditional narrative review approach, which relies on an interpretative and non-systematic selection of literature. Although efforts were made to include influential and representative studies, the absence of a structured systematic protocol may introduce selection bias and limit reproducibility.

Second, the review covers a broad temporal span from 1995 to 2026, during which conceptual definitions, diagnostic criteria, and measurement tools for Internet Addiction have varied considerably. This heterogeneity in terminology and methodology may affect the comparability of findings across different phases of research.

Third, a substantial proportion of the included studies are cross-sectional in design, which restricts the ability to draw causal inferences regarding the relationship between Internet Addiction and associated psychological variables such as depression, anxiety, and stress. As a result, the proposed maladaptive coping framework, while theoretically grounded, remains inferential rather than empirically causal.

Fourth, although the review incorporates cross-cultural evidence, including studies from non-Western contexts, there remains an imbalance in the literature, with a significant proportion of research originating from specific geographic regions. This may limit the generalisability of the conclusions across diverse cultural and socio-economic settings.

Fifth, the reliance on self-report measures in a large number of included studies introduces the possibility of response bias, including social desirability and recall bias, which may influence the accuracy of reported internet use behaviours and psychological symptoms.

Finally, while the review proposes an integrative conceptual model of Internet Addiction as a maladaptive coping mechanism, it does not empirically test this model. Future research employing longitudinal and experimental designs is necessary to validate the proposed pathways and strengthen theoretical claims.

VII. STRENGTHS OF THE STUDY

The present review offers several notable strengths that enhance its academic and practical contribution to the field of Internet Addiction research. First, it adopts a comprehensive chronological–thematic approach, integrating nearly three decades of research (1995–2026). This dual structure allows

for both historical tracing and analytical synthesis, providing a more nuanced understanding of the evolution of the field compared to purely descriptive or purely thematic reviews.

Second, the study advances a clear and theoretically grounded central argument by conceptualising Internet Addiction as a maladaptive coping mechanism. This integrative perspective bridges previously fragmented domains, including cognitive-behavioural models, neurobiological evidence, and psychosocial frameworks, thereby contributing to theoretical consolidation within the literature.

Third, the review incorporates a wide range of empirical evidence, including cross-cultural studies and research from non-Western contexts such as India. This enhances the ecological validity and global relevance of the findings, addressing a common limitation in earlier reviews that were predominantly Western-centric.

Fourth, the inclusion of recent developments, including meta-analytic findings, network analysis approaches, and emerging intervention models, ensures that the review remains contemporary and aligned with current research trends up to 2026. This strengthens its relevance for both academic and applied contexts.

Fifth, the study emphasises both risk and protective factors, moving beyond deficit-focused models to include resilience, prosocial behaviour, and psychological well-being. This balanced perspective supports more holistic interpretations and has direct implications for prevention and intervention strategies.

Finally, the proposed integrative psychosocial model provides a conceptual framework that can guide future empirical research and clinical practice. By outlining a mechanistic pathway linking psychological vulnerability, emotional dysregulation, and excessive internet use, the study offers a foundation for hypothesis-driven investigations and evidence-based interventions.

VIII. CONCLUSION

This review provides a comprehensive synthesis of Internet Addiction research from 1995 to 2026 and advances a theoretically integrated understanding of the phenomenon as a maladaptive coping mechanism. The primary theoretical contribution of this study lies in reconceptualising Internet Addiction beyond a behavioural excess or isolated disorder, positioning it instead as a functional psychological response to underlying distress. By integrating evidence from cognitive-behavioural models, neurobiological findings, and psychosocial research, the review proposes a unified pathway in which psychological vulnerability, emotional dysregulation, and reinforcement mechanisms interact to produce compulsive internet use. This framework contributes to the existing literature by bridging fragmented perspectives into a coherent explanatory model.

From a clinical perspective, the findings highlight the importance of addressing underlying psychological conditions such as depression, anxiety, stress, and interpersonal difficulties rather than focusing solely on reducing screen time or behavioural symptoms. Interventions such as cognitive behavioural therapy, emotion regulation training, and resilience-building approaches appear particularly relevant. The identification of protective factors, including prosocial behaviour, social support, and psychological well-being, further emphasises the need for strength-based therapeutic strategies alongside symptom-focused interventions.

At the policy level, the growing prevalence and global expansion of Internet Addiction underscore the need for structured prevention and intervention frameworks within educational institutions and public health systems. Digital literacy programmes, early screening initiatives, and school-based mental health interventions can play a critical role in reducing vulnerability among adolescents and young adults. Additionally, culturally sensitive approaches are essential, given the increasing evidence from non-Western contexts, including India.

Despite significant advances, several gaps remain in the literature. Future research should prioritise longitudinal designs to establish causal pathways, cross-cultural comparative studies to enhance generalisability, and the development of standardised diagnostic criteria to reduce conceptual ambiguity. Emerging methodologies such as network analysis and integrative modelling should be further utilised to capture the dynamic and multifactorial nature of Internet Addiction. Furthermore, greater emphasis is needed on protective mechanisms and intervention effectiveness across diverse populations.

In conclusion, Internet Addiction should be understood as a complex, multidimensional psychosocial phenomenon embedded within broader coping processes. Recognising its underlying mechanisms is essential for developing effective, evidence-based prevention and intervention strategies.

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