

## School-based Prevention for Adolescent Internet Addiction: Prevention is the Key. A Systematic Literature Review

### Aims

1. To identify school-based prevention programmes or protocols for Internet Addiction targeting adolescents within the school context and to examine the programmes' effectiveness.
2. To highlight strengths, limitations, and best practices to inform the design of new initiatives, by capitalizing on these studies' recommendations.

### Key Findings

The systematic review identified the following needs to be addressed in future designs:

- Define the clinical status of Internet Addiction (IA) more precisely.
- Use more current psychometrically robust assessment tools for the measurement of effectiveness (based on the most recent empirical developments).
- Reconsider the main outcome of Internet time reduction as it appears to be problematic.
- Build methodologically sound evidence-based prevention programmes.
- Focus on skill enhancement and the use of protective and harm-reducing factors, and (vi) include IA as one of the risk behaviours in multi-risk behaviour interventions.

These appear to be crucial factors in addressing future research designs and the formulation of new prevention initiatives.

### Methodology

A systematic literature review was conducted on adolescent school-based prevention interventions for IA and gaming addiction. Inclusion criteria for the present review were the following: (i) all journal papers – referring to published protocols of preventive interventions, even if not accompanied by an evaluation, as well as any type of quantitative and qualitative evaluation of effectiveness; (ii) studies targeting adolescents, aged 11-17 years in a school environment; (iii) studies with publication dates between 2007-2017, since IA prevention approaches are a relatively nascent field within literature; (iv) full-text studies published in English, German, Spanish and Greek language (the native languages of the co-authors); and (iv) studies targeting multiple risk behaviours (*i.e.*, drugs, alcohol), where IA was included as one of the targeted behaviours.

### Policy Context: Prevention

The relevant policy context relates to prevention. Prevention is a broad term encompassing a wide array of interventions aimed at reducing the incidence of disease and disability, or slowing the progression and exacerbation of a condition, with health promotion serving as a component of prevention. Prevention approaches mostly encountered in the literature have been categorised according to two definitional frameworks. Caplan's framework comprises: primary

(prevent onset of a disease), secondary (reduce the incidence of a disease) and tertiary (reduce the impact of a persistent health issue) prevention, emphasizing a public health perspective. Gordon's framework comprises three levels: universal (targeting a wide population), selective (targeting subpopulations) and indicated prevention (targeting at risk or vulnerable individuals). Health promotion refers to the combined educational and environmental resources driving health. Prevention programmes to address risky adolescent lifestyles have historically been aimed toward non-users (primary prevention), screening for potential problems (secondary prevention), and treatment (tertiary prevention) for adolescents who exhibit problematic behaviours, such as substance abuse or problem gambling. Recent findings suggest more evidence-based, multi-system approaches, involving parents, schools, the community and other relevant stakeholders in guiding prevention efforts. The findings of this work may lay the groundwork for policy recommendations regarding prevention of problematic technology use and Internet addiction in adolescents.

## Background

Adolescence, operationally defined as the developmental period between the ages of 10 to 18 years, represents a vulnerable period for engagement in risky behaviours (*i.e.*, alcohol drinking, drug taking and engaging in violence), and the development of addictions. It is also a critical period of value formation, personality, and rapid psychological development, characterised by the adoption of various lifestyle, health behaviour and educational choices, which hold a defining role in adulthood. Need satisfaction (*e.g.*, peer communication, self-expression, desire for recognition) and peer group pressures may offer a partial explanation for adolescents' high online media use frequency and high engagement in potentially addictive online behaviours. Researchers in this field are increasingly discussing prevention and health promotion as a method of positively impacting youth engagement with the online environment. According to the American Psychological Association (APA) guidelines for prevention, the prevention field has documented its effectiveness and is progressively acknowledged as a crucial component of practice, research and training, bridging research and public policy. Evidence based prevention practices are therefore encouraged to be viewed as complementary to treatment and crisis intervention with numerous benefits (*i.e.* reduction of illness and problem behaviours, enhancement of human functioning and reduced health care costs) for policy making, health and wellbeing promotion.

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