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Reduction in the prospective incidence of adolescent psychopathology: A review of school-based prevention approaches

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Abstract
Adolescence is a developmental period characterised by vulnerability to psychopathology. Previous research has often confused treatment and prevention, and has cited effect sizes in selective or indicated samples as evidence for preventive efficacy without regard to the course of 'healthy' participants over time. The present review clarifies the definition of a prevention effect, and reviews universal, school-based prevention studies. It was found that of 36 included studies, 16.7%, 0%, and 21.4% demonstrated a true prevention effect for depression, anxiety, and disordered eating, respectively. No conclusions regarding a 'gold standard' approach could be drawn. Future directions for prevention research are discussed.

Contents

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1. Overview and rationale

1.1. Aim

Adolescence is a developmental period characterised by increased cognitive and social sophistication as well as increased vulnerability to psychopathology (Calkins, 2010; Santonastaso et al., 1999). Mental ill-health in adolescence is both prevalent (Kessler et al., 2012) and burdensome (Gore et al., 2011), and the development of effective preventive interventions for this population has been called upon as a research and public health priority (Cuijpers, Beekman, & Reynolds, 2012). Prevention efforts for adolescents to date have suffered from an overall lack of efficacy, a lack of clarity surrounding conceptual definitions, a relative dearth of studies conducted, and a poor degree of consensus in the extant findings (Nehmy, 2010). The present review aims to describe the epidemiology of mental health problems in adolescence, clarify the definition of what constitutes a prevention effect, and explore the published literature to identify studies demonstrating such effects. Studies aiming to prevent depression, anxiety, or disordered eating symptoms were chosen because they are three of the most prevalent and burdensome disorders of adolescence, and because the high comorbidity rates between them (Hudson, Hiripi, Pope, & Kessler, 2007; Hughes, 2012; Teesson, Slade, & Mills, 2009) may allow for consideration of shared mechanisms. Finally, recent theoretical developments will be discussed in the context of future recommendations for transdiagnostic interventions including targeting unhelpful perfectionism as a common etiological process, and negative affect as a transdiagnostic outcome variable.

1.2. Adolescent mental health

A recent large-scale epidemiological survey revealed 12-month prevalence rates of adolescent depression, anxiety disorders, and eating disorders at 10%, 24.9% and 2.8%, respectively (Kessler et al., 2012), with unipolar depressive disorders alone the leading cause of disease burden in adolescence (Gore et al., 2011). Not only is adolescence a period of increased vulnerability to mental ill-health (Hankin et al., 1998), the occurrence of a psychiatric diagnosis in adolescence predicts later psychopathology (Fergusson, Horwood, Ridder, & Beautrais, 2005). From a developmental perspective, adolescence appears to be a critical phase in the mental health of individuals across the lifespan. Major changes in neural systems occur in adolescence and have been implicated as a possible explanation for vulnerability to psychopathology because they underlie multiple cognitive and affective processes (Paus, Keshavan, & Giedd, 2008). Adolescence is also a period of increased social needs, more intense interpersonal relationships, and self-scrutiny. The prevalence and disease burden of adolescent psychopathology has been described as a "global public health challenge", yet only a minority of cases are diagnosed and treated (Patel, Flisher, Hetrick, & McGorry, 2007).

Given this stage of emerging vulnerability, many school-based preventive interventions have been in the preadolescent or elementary school age group (Fisak, Richard, & Mann, 2011). However, entry into adolescence is characterised by marked increases in cognitive and social complexity. Increased cognitive capabilities such as formal operational thought (Kuhn, 2006) and the move toward independence from family and greater dependence on peer relations provide a contrast to the psychological milieu of the preadolescent. These differences suggest that interventions targeting adolescents may require a greater degree of sophistication than those targeting younger age groups.

In their meta-analysis of depression prevention programs, Stice, Shaw, Bohon, Marti, and Rohde (2009) suggested that adolescents' abstract reasoning would better allow them to understand and apply concepts taught compared to preadolescents. Meta-analyses have shown that older children are more likely to benefit from preventive interventions targeting depression (Horowitz & Garber, 2006; Stice et al., 2009), eating disorders (Stice, Shaw, & Marti, 2007), but not anxiety (Teubert & Pinquart, 2011). This may be a result of a differential response to anxiety programs based on age, or may reflect a possible content bias, whereby existing anxiety programs are better suited to younger children. Barrett, Lock, and Farrell (2005) evaluated the FRIENDS anxiety prevention program in a group of preadolescent children and adolescents (mean ages not reported). They found the program had a reduced impact when administered to the adolescent group.

The rapid physical, social and psychological changes in adolescence necessitate an approach that accommodates these differences and challenges the presumption that interventions of promise in the preadolescent population will be transportable to an older age group (Christie & Viner, 2005). These developmental characteristics allow for, and perhaps demand, a greater degree of sophistication in content (e.g., more abstract concepts) and procedures (e.g., independent homework tasks) to address their specific needs. For these reasons and the observation that the majority of mental disorders have their onset in