This paper presents a review of 25 sources on school-based eating disorder prevention programs for pre-adolescents and adolescents. The sources used to collect the information include the ERIC database, PsycINFO, InterScience, and Expanded Academic. A review of the literature concluded that the most effective method of implementing a school-based eating disorder program has been to use a comprehensive curriculum integrating primary and secondary prevention techniques. A small group context was the format found to be most constructive for girls with eating disorders due to its high relational characteristics. The research suggests that a comprehensive program should address such essential components as developmental education, life skills training, empowerment, media literacy training, and self-esteem enhancement. It encourages longitudinal research since change occurs rapidly during the developmental stage of adolescents, and aspects of the prevention program that are effective at one time, may not be at another time. (Contains 25 references.) (JDM)
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School-Based Eating Disorder Prevention Programs for Pre-Adolescents and Adolescents

A Review of Recent Literature

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Abstract

In this review of the literature, 25 sources on the topic of school-based eating disorder prevention programs for pre-adolescents and adolescents were examined. The search engines used to collect sources included the Search ERIC database, PsycINFO, InterScience, and Expanded Academic. Research conducted by Neumark-Sztainer was well represented throughout the literature on eating disorders in youth. The culminating research concluded that the most effective method of implementing a school-based eating disorder program has been to use a comprehensive curriculum integrating primary and secondary prevention techniques. Due to its high relational characteristics, the small group context was the format that was found to be most constructive for girls with eating disorders. In the research, it was concluded that a comprehensive program should address such essential components as developmental education, life skills training, empowerment, media literacy training, and self-esteem enhancement. In order for this field of study to advance, longitudinal studies have been suggested.
School-Based Eating Disorder Prevention Programs for Pre-Adolescents and Adolescents

The review of the literature on school-based eating disorder prevention programs for pre-adolescents and adolescents was culminated from 25 sources including two articles from the microfiche collection, one dissertation abstract, and the rest scholarly journals. Eating disorders have been a relatively new subject of discussion in the schools; therefore, the publication dates spanned the 1990s. The search engines used were ERIC, Expanded Academic, InterScience, and PsycINFO. For the purpose of this review, the term eating disorders was defined as anorexia nervosa, bulimia nervosa, and dieting as a means of extreme weight control.

The significance of this review relied upon the statistical data which showed that the numbers of school-aged children suffering from eating disorders and eating disordered behavior have been growing. In addition, the age of children exhibiting symptoms has become younger and younger. In order to deter children from developing eating disorders, primary prevention programming was suggested to begin in the elementary grades. The review was divided into four subsections. The first part discussed various types of prevention programming and the differences between the efficacy of primary and secondary prevention. The second section reviewed the role of comprehensiveness in prevention programming. The third portion focused on the myriad variables contributing to disordered eating. Finally, the fourth segment synthesized the first three by reviewing components of successful school-based prevention programs.

Types of Prevention Programming and the Efficacy of Primary and Secondary Prevention

The three identified types of prevention programming are primary, secondary, and tertiary. Primary preventative efforts have focused on the identification, reduction, and elimination of risk factors contributing to a disorder (Huon, Braganza, Brown, Ritchie, &
Roncolato, 1998). In a review of six school-based prevention programs, Carter, Stewart, Dunn, and Fairburn (1997) found that primary prevention strategies typically included “education about the nature and consequences of eating disorders; discussion about the adverse effects of dieting and other methods of weight control; and skills-training for resisting social pressures to diet” (p.168). Primary and secondary prevention methods are very similar, but their target populations have differed; there was substantial debate in the literature as to which strategy has been more effective in the school system.

According to Huon et al. (1998), secondary prevention programming has occurred when the focus is on “reducing chronicity through early identification and intervention” (p.456). Taking these definitions into account, the target population has been the key difference. Primary prevention has targeted low-risk groups of students (general school population), while secondary prevention has aimed to reach pre-adolescents and adolescents at high-risk for developing, or those whom have already been exhibiting symptoms of an eating disorder.

One of the conclusions in this field of study, was that prevention efforts aimed at low-risk populations have been more successful than those administered to high-risk subjects (Nakamura, Hoshino, Watanabe, Honda, Niwa, & Yamamoto, 1999). This was due to studies that indicated once in effect, disordered eating behaviors have been extremely difficult for pre-adolescents and adolescents to change, especially in regards to negative self-perception (Neumark-Sztainer, Butler, & Palti, 1995; Shisslak, Crago, Renger, & Clark-Wagner, 1998). Considering that poor self-image and distorted body image take years to manifest as destructive concepts, it is logical to expect that cognitive-behavioral change takes time, and considerable effort is required on the part of the eating disordered person in order to “unlearn” the undesired behavior. From this
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perspective, it was the primary prevention that targeted low-risk students that seemed most effective.

However, other studies concluded that the opposite was true. Killen et al. (1993) as cited in Graber and Brooks-Gunn (1996) argued that primary prevention for eating disorders has been inappropriate. The high-risk students who have already displayed signs of disordered eating behaviors are the ones who should be targeted by secondary preventative measures. In addition, Varnando (1998) stated that targeting youth at the highest risk for developing eating disorders resulted in more effective prevention efforts. One of the reasons given for the ineffectiveness of including the entire school population in prevention efforts was the multiple demands made on school personnel’s time by individual students’ and group needs (Chally, 1998). Murray, Touyz, & Beaumont (1990) and Watts & Ellis (1992) as cited in Chally (1998) discovered that in spite of trying to prevent eating disordered behavior, deviant eating behavior was sometimes learned through discussion. From this perspective, it was the secondary prevention programming aimed at high-risk and/or already affected students that proved most effective.

Tertiary prevention has been the strategy applied least in the schools. Tertiary methods have involved treating the behavior that has already been manifested. Gabel and Kearney (1998) defined tertiary prevention as “focusing on reducing the impairment that may result from an established disorder” (p.33). It was evident why this prevention method has been used least in the schools; in most cases, a student who has been entrenched in an eating disorder was in need of more intensive therapy than what a school counselor can have provide (Cappuzzi, 1996). Frequently, these students have been given referrals to appropriate organizations and professionals outside of the school system.
It is vital to note that tertiary prevention, the most well developed area of research, has been the least likely method to be used in the schools. Yet, the school environment has been where the most appropriate target population for employing primary and secondary prevention exists (Paxton, 1996). Primary and secondary prevention research is still in the preliminary stages. Considering that the school setting has been the optimal place for prevention strategies to affect the highest number of pre-adolescents and adolescents, much more research on the implementation and evaluation of primary and secondary prevention programming has been needed.

The literature indicated that the most commonly recommended forms of prevention for eating disordered behavior has been a primary approach or a combination of primary and secondary, even though there has been a paucity of research describing developmentally appropriate and theoretically based primary prevention strategies (Rosen, 1998). This conclusion was contradictory. How has it been that the studies encouraged primary prevention as a means to deter disordered eating habits in pre-adolescents and adolescents, when there has been so little research to support this claim?

The Role of Comprehensiveness in Prevention Programming

In the majority of the literature the importance of comprehensiveness, or an all-encompassing approach was highly stressed as a component of successful prevention programs (Neumark-Sztainer, 1996; Azzarto, 1997; Rosen, 1998; Stipek, de la Sota, & Weishaupt, 1999). Due to the multidimensional factors that have contributed to the development of eating disorders, a holistic programming strategy was suggested. Pre-adolescents’ and adolescents’ behaviors, attitudes, and beliefs have been affected by several different variables: cultural, social, psychological, and biological to name a few (Steiner & Lock, 1998). Therefore, attention must
be paid to not only what occurs in the classroom, but also transactions in the entire school, between the school and the family, and in the wider community as a whole (Dixey, 1996).

Due to the expansiveness of programming, comprehensiveness also has ensured that the greatest number of students has been reached. Neumark-Sztainer (1996) provided a framework for a comprehensive program based on an ecological model for health promotion.

The components of the program included staff training; a module for preventing eating disturbances and obesity for junior high students; formal and informal integration of material into existing curricula for all students; individual counseling and small group work for high-risk adolescents; a referral system within the school and between the school and community health services; opportunities for healthy eating at school; modifications in physical education and sport activities to encourage opportunities for physical activity for all students and policies preventing extreme weight fluctuations in the interest of improving team or individual competitiveness; and outreach activities in the school and the community by students as part of the curriculum and by staff and interested parents (p.68).

From this example of an effective comprehensive prevention program, it was evident that both primary and secondary strategies needed to be employed. The spectrum of opportunities for teaching and learning in a comprehensive program should be broad and well represented in the school system.

Another essential component of comprehensive prevention programming has been the inclusion of evaluation methods. As reflected in the literature, this crucial step has often been omitted in several of the studies due to the difficulty of conducting longitudinal studies with school populations (Childress, Brewerton, Hodges, & Jarrell, 1993; Neumark-Sztainer, 1995;
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Even though some of the studies have employed immediate evaluative procedures such as the pre-test/post-test method, only one longitudinal study has been performed. Long-term follow up has been suggested in the literature, but not implemented (Moreno & Thelen, 1993; Steiner & Lock, 1998). The lack of use of this evaluative tool has been problematic in the field of study of preventing eating disorders because the efficacy of the prevention programs has not been able to be measured over time.

Variables Contributing to Disordered Eating

The varied factors that have contributed to eating disordered behavior were heavily represented in the research. In the literature, the three categorizations of factors that have contributed to disordered eating were environmental, personal, and behavioral. Perry, Story, and Lytle (1997), listed the following models under each category. Environmental factors included access to foods, role models, social support, social norms, and parenting styles. Knowledge, self-efficacy, functional meanings, attitudes, self-image, and locus of control were stated as personal factors. The behavioral factors were listed as dietary skills, decision-making skills, coping responses, intentions, reinforcements, and behavioral repertoire. In addition, age and gender have been strongly correlated with the incidences of disordered eating, perceptions of body image, and methods of weight regulation (Vervaet, van Heeringen, & Jannes, 1998). For the purpose of this review, the personal factor of self-esteem and the social-environmental factor of the role of the media have been expounded upon. It has been indicated that the two are interrelated and comprise a large portion of the reason why so many young people seem obsessed with appearances.

Self-esteem has been identified as a multi-layered construct of the personality, which has lent itself to much scrutiny. A prevalent question in the research was which comes first, low
self-esteem or the eating disorder (Shisslak et al., 1998)? In this particular study, a causal relationship was not determined because there was no method of measurement. The question could have been answered if the researchers had conducted a longitudinal study measuring self-esteem and eating disordered behavior at baseline and then again at a later date. As mentioned previously, the absence of long-term and follow-up studies has stunted the development of more effective prevention programming for students suffering with eating disorders.

There have been a few approaches to enhancement of self-esteem (for girls) that could be used in a prevention program or in a health education curriculum. Participation in sports, media literacy training, and body enhancement were suggested as possible topics to be included in an intervention program (Shisslak et al.). A different viewpoint was offered in an article focusing on group work and empowerment. Friedman (1998) argued that the nature of prevention programming has been didactic and therefore disempowering, which has left girls in vulnerable positions. It was suggested that girls take a pro-active stance by leading and co-facilitating groups, which in turn was reported to empower them and increase their self-esteem.

Closely linked to the development of self-esteem, or lack thereof, has been the role of the media in young people’s perceptions of what is normal, acceptable, and desirable in terms of body shape and size. In one cross-sectional study, high school students were asked the principal sources of information from which they had learned about food, nutrition, risk of being overweight, and dieting to reduce weight. The majority of the information was gleaned from newspapers (78%) and television (75.7%) (Brook & Tepper, 1997). It has been found that over-exposure to the media has been linked to the likelihood of whether or not a young adolescent will develop an eating disorder (Shisslak et al., 1999). These conclusions should send a social signal that something has been dreadfully wrong with the images that have been portrayed in the media.
In order to decrease the amount of influence the media has wielded over the pre-adolescent and adolescent audience, Stipek et al., (1999) suggested implementing a curriculum based prevention program which “helps students understand how outside entities that do not necessarily have their best interest in mind...attempt to influence their behavior” (p.450). In addition, teaching students coping skills to deal with media influenced pressures such as the desire to diet in order to remain thin was encouraged (Santonastaso, Zanetti, Ferrara, Olivotto, Magnavita, & Favaro, 1999). The glamorization of excessive thinness has been slowly, but progressively eating away at pre-adolescents and adolescents in the schools.

Components of Successful School-Based Eating Disorder Prevention Programs

Even though there has not been an abundance of successful prevention programs represented in the literature, the ones discussed shared certain components and formats. First, the small group format was found to prove most encouraging and helpful for pre-adolescent and adolescent girls (Paxton, 1996; Azzarto, 1997; Friedman, 1998). This was explained by the relational context which support groups have often provided. Pirvan (1995) postulated that working in a supportive group in the school with some adults, as well as with peers, led to the formation of an alternative and protective subculture. The relational context of the group has often provided girls at high-risk for development of, and those who have already been suffering with eating disorders with a space that has been safe and empowering.

Empowerment was cited as a crucial component for the efficacy of eating disorder prevention programming. One way in which adolescents experienced empowerment was when they were included in the decision-making and implementation processes. Often, power has been viewed as a construct that is associated with the dominance of the male culture. Many girls whom exhibited eating disordered behavior described a feeling of powerlessness when it comes
to food (Dixey, 1996). Therefore, when we were responsible for part of the planning and decision-making processes within the group, they asserted themselves; they felt empowered. The strength they experienced by having been involved in the process may have led to an increase in self-esteem, while simultaneously have advanced them in social and leadership skill development.

Leadership skill development was a component of another well represented modality prevalent in the literature for the implementation of eating disorder prevention programs. Life skills training has been proven to work effectively with adolescents who exhibit any sort of high-risk behavior (Huon et al., 1998; Stipek et al., 1999). The comprehensiveness of teaching life skills in the schools has been the factor that has applied so well with prevention programming. Life skills training is not a one time course, mini-lecture, or special educational program; rather, it has been a continual method of enforcing healthy decision-making for students that have hopefully lasted a lifetime. Stipek et al. (1999) stated, "it is a way of educating the whole child by embedding lessons related to physical, mental, emotional, and social health within the everyday curriculum and children's everyday experiences, in and out of the classroom" (p.451). By having focused on the whole child, instead of merely having concentrated on the disordered eating behavior, chances were greater that the student was able to integrate his learning experiences into making health promoting decisions regarding high-risk behavior.

In cohesion with having learned life skills, comes the developmental appropriateness of prevention programming. The research indicated that developmental education in preventative strategies for eating disorders has often been omitted. In an earlier study conducted by Graber, it was found that girls with persistent deviant eating behaviors in young and mid adolescence went through puberty earlier than other girls. It is no coincidence that the normative age at which girls have started to diet and become concerned with body image has occurred simultaneously with
the on-set of pubescent changes. It has been suggested that girls be taught that certain bodily developments, such as breast and hip growth, are normal and necessary transitional biological functions for their age group. A well-balanced, comprehensive curriculum that stressed normative developmental changes could assist girls in accepting and appreciating their bodies as they grow and mature into young women (Graber & Brooks-Gunn, 1996).

Summary

In short, the research revealed that the most effective method of employing a school-based eating disorder prevention program or curriculum has been to follow a comprehensive plan that integrates primary and secondary prevention strategies. It has been necessary to incorporate the myriad factors that have contributed to disordered eating within the broader categories of environmental, personal, and behavioral. The most effective format for girls with eating disorders has been the group setting, as it has provided an environment rich in relational context. A few of the target areas that should be addressed in the program were self-esteem enhancement, media literacy training, empowerment, life skills training, and developmental education.

Conclusions

Much of the content in the literature was repetitive. Many of the studies reached similar conclusions that there has not been sufficient enough research, specifically longitudinal studies to ensure that the prevention measures were sound and reliable. This conclusion led the writer to believe that the school-based eating disorder prevention-programming field of study is stagnant. Even though several studies have claimed that preventing eating disorders in pre-adolescents and adolescents is paramount, only one longitudinal study has been conducted. Cross-sectional studies were well represented in the literature and do not need to be replicated for further advancement in the field.
In order to broaden insights in the field of school-based eating disorder prevention programming, several longitudinal studies are suggested. In order to track the efficacy of the educational efforts of prevention programs over time, long-term studies must be conducted. It has seemed rather unintelligent to spend time, energy, and money on programs that have had no long-term evaluative effect. It has been well documented that change occurs quite rapidly during the developmental stage of adolescence. A post-test that has been administered 6 months after a prevention program may show significant improvement in adolescents’ knowledge and attitudes toward a healthy lifestyle. However, a year, or even another 6 months later, the results of that study would have a good chance of being completely different. Until researchers decide to implement longitudinal studies tracking the efficacy of school-based eating disorder prevention programs, the field will continue to produce similar results and findings. This cyclical ineffectiveness certainly has not helped those students who have suffered.
References


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