

THE ATTUNED REPRESENTATION MODEL FOR THE PRIMARY PREVENTION OF EATING DISORDERS: AN OVERVIEW FOR SCHOOL PSYCHOLOGISTS

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The Attuned Representation Model of eating-disorder etiology and symptom maintenance is a comprehensive model that can effectively guide prevention and treatment efforts by addressing individual, cultural, and interactive issues. The model integrates the risk factors related to the onset of eating-disordered behaviors (i.e., biological, psychological, and social) as well as addresses ongoing systemic discordance that plays a significant role in the risk, etiology, and maintenance of eating disorders. To clarify the structure of the model, it is explicated in terms of its fit with the current state of empirical etiological research. After the model is detailed, it is described within the context of the role of the school psychologist in the prevention of eating disorders. Finally, implications for future research are briefly described. © 2006 Wiley Periodicals, Inc.

Eating disorders continue to pose significant risk as a psychological and medical disruption of normal childhood and adolescent development (Hoek & van Hoeken, 2003; Keel & Herzog, 2004). Although researchers and practitioners have identified many critical causal factors for integration into prevention and treatment protocols (e.g., Austin, 2000; Myers, Wonderlich, Norton, & Crosby, 2004), cultural trends seem to be increasingly undesirable. Children and adolescents are regularly inundated with confusing and discordant messages emphasizing body shape and size. To illustrate, news media provide ongoing updates on the medical establishment's battle against childhood obesity. Gym teachers publicly weigh children to warn of high body mass index. Parents and teachers discuss their own diets and obligatory exercise all designed to change body size and shape. Simultaneously, health class teachers and media literacy campaigns deplore waiflike presentations of women. Counselors and talk-show hosts describe extreme thinness as an illness (i.e., anorexia nervosa). All this is accompanied by a chronic barrage of media messages and sales enticements endorsing heavy and unhealthy food consumption (Bauer, Yang, & Austin, 2004) alongside the idealization of the exceptionally thin ideal for women and an unattainable muscular stature for men (Littleton & Ollendick, 2003). Disturbingly, missing from the central focus and ongoing popular dialogue is the presence of essential developmental issues such as nutrition, self-care, communication, assertiveness, and emotional regulation.

It is a systemic approach to this ongoing cultural discordance, the role of individual skills and vulnerabilities, and the interface of these variables that has not been well addressed in etiological and treatment models. Understanding at this level is critical to successful prevention and treatment practices.

The Attuned Representation Model is a comprehensive model that can effectively guide prevention and treatment efforts by addressing cultural, individual, and interface issues. The model integrates the risk factors related to the onset of eating-disordered behaviors (i.e., biological, psychological, and social) as well as addresses ongoing systemic discordance that plays a significant role in the risk, etiology, and maintenance of eating disorders.

ATTUNED REPRESENTATION AND ETIOLOGICAL RESEARCH

Brief Overview of the Model

The Attuned Representation Model (see Figure 1) integrates the patterns evident in the research trends to build a conceptualization that can guide prevention and treatment support efforts in the

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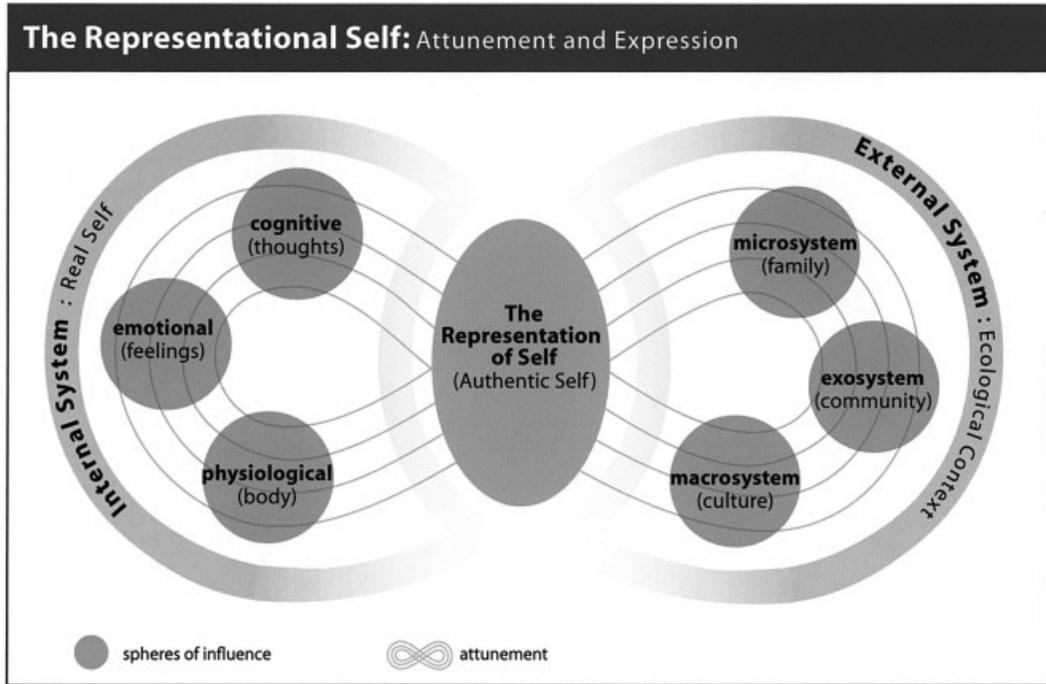


FIGURE 1. The Representational Self: Attunement and expression.

schools. The Attuned Representation Model is an interactive model of two systems: the self system and the cultural system (see Figure 1). The self system is made up of three potentially integrated and transactive components that co-evolve throughout an individual's development: (a) the physiological self (i.e., body), (b) emotional self (i.e., feeling), and (c) cognitive self (i.e., thinking). The self system is an internal system experienced by the individual as his or her *Real Self*. The external system is modeled after Bronfenbrenner's (1979) ecological model and also is made up of three potentially integrated and transactional systems: (a) the microsystem (e.g., family), (b) exosystem (e.g., community), and (c) the macrosystem (e.g., culture). The two systems are interconnected by a process called attunement. Based on Siegel's (1999) theoretical work, attunement is defined as a reciprocal process of mutual influence and coregulation. Internal-system (i.e., Real Self) and external-system attunement is facilitated by the *Representational Self*. The Representational Self is the constructed self that is presented to the external system. It is the way individuals engage with their environment—how they interact with their families, people at their schools, and individuals in their communities. In this model, this can include things that they say and do in these contexts, and even what they choose to wear.

The Internal System and Research. Each component of the Attuned Representational Model has been identified in the research as contributing to risk for eating-disordered symptomatology (i.e., cognitive, emotive, and physiological). Specifically, in the cognitive domain, etiological constructs have been implicated such as the disordered development of self-concept and self-efficacy, perfectionism, and distorted body image (e.g., Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004). In the emotional realm, etiological factors implicated include those associated with emotional self-regulation, mood disturbance, and difficulty with negotiation of negative affect

(Jacobi et al., 2003). More recently, researchers have been recognizing the significant role of the physiological risk factors. These include dieting and set-point related physiological disruptions, low interoception, and timing of pubertal onset (e.g., Jacobi et al., 2004; Littleton & Ollendick, 2003; Wisniewski & Kelly, 2003). Interestingly, although gender also is considered a strong risk factor (i.e., most cases are female; Austin et al., 2004), this may not be a physiological risk factor. Rather, social pressures unique to females may account for the gender differences.

The External System and Research. The external system (e.g., family, community, and culture) also has been implicated in the etiology and maintenance of eating-disorder symptomatology. First, eating-disordered behaviors have long been associated with a variety of familial factors (e.g., Bruch, 1973). These variables include low levels of parental caring, poor parent and child attunement, low familial communication, and incidence of physical and sexual abuse (e.g., Wonderlich et al., 2001). Interestingly, research has found that some specific types of family relationships may protect against the onset of eating-disordered behavior, encourage the development of emotional regulation, and increase problem solving (Byely, Archibald, Graber, & Brooks-Gunn, 2000; Wisniewski & Kelly, 2003). As with family factors, cultural influences have been quite clearly supported (e.g., McGilley, 2004). Many studies have identified variables such as acculturation and media exposure as significant risk factors (e.g., Jacobi et al., 2004; Littleton & Ollendick, 2003).

Notably, there appears to be an emphasis on family and cultural-level risks and less research on the effects of community-level variables. Of the community-level studies completed, there have been some compelling findings. One interesting study explored sports-related subcultures and found that gender differences are less clear in unique weight-sensitive social contexts (e.g., wrestling and dancing; Patel, Greydanus, Pratt, & Phillips, 2003). Additionally, Austin and colleagues (2004) recently reported an elevation in eating-disordered symptoms in gay/bisexual males compared to heterosexual males and hypothesized that the social norms in gay-male communities may place an increased emphasis on appearance and thinness. While more research is needed, there seems to be emerging evidence for a community-level role in symptomatology.

Overall, these findings lend support to the contention that eating-disorder etiology is psychologically and physiologically complex and exists within the layered ecology of family, community, and culture. Adeptly, empirical models (e.g., Cook-Cottone & Phelps, 2003; Jacobi et al., 2004; Stice, Schupak-Neuberg, Shaw, & Stein, 1994) and theoretical models (e.g., Myers et al., 2004) have begun to address issues such as an evolving developmental trajectory toward disorder; intercorrelations among specific risk and protective factors; and the effects of individual, interpersonal, and cultural variables. Yet, it is a systemic view of the interrelatedness and discordance of these variables and the consequent implications for prevention and treatment practices that is not well conceptualized or empirically validated. Such a comprehensive model would provide a framework for a more systematic approach to prevention and treatment that goes beyond the more fragmentary amelioration of risk factors and the enhancement of protective factors and move toward coordinated and cohesive multilevel, multisystem efforts.

THE ATTUNED REPRESENTATION MODEL

Attunement and the Healthy Representational Self or Authentic Self

In this model, healthy development involves adequate attunement among the different aspects of the child's self system (i.e., the integration of cognitive, emotional, and physiological systems) and the ecological context within which the child develops (i.e., the micro-, exo-, and macrosystems). The child is able to sufficiently engage in a reciprocal process of mutual influence and coregulation of his or her thoughts, feelings, and physiological needs with those in his or her

family, community, and culture. Within the family, the community, and/or the culture, the child is accepted and responded to, and most importantly, the child's struggles and imperfections are acknowledged, negotiated, and viewed as an expected part of human development (e.g., Marcus & Levine, 2004). That is, the child develops within the context of a sense of attunement within his or her world (Siegel, 1999). Accordingly, the Representational Self, the self the child presents to his or her world, develops as an accurate representation of the child's Real Self (i.e., the *Authentic Self*; see Figure 1).

Misattunement and the Harmonic Self

In the case of eating-disorder symptomatology, influences from the internal system (i.e., cognitive, emotional, or physiological) and/or the external system (i.e., micro-, exo-, or macro-system) individually, collectively, and/or cumulatively create opportunity for misattunement (e.g., Marcus & Levine, 2004). As a result, the child views her or his emotional, cognitive, or physiological characteristics as unacceptable or invalid (Marcus & Levine, 2004). To be acceptable, the child perceives that he or she must be the way others want, expect, or need him or her to be. When this misattunement occurs, the Authentic Self is abandoned and the *Harmonic Self* is constructed to regain, at least artificially, the child's attunement with his or her Ecological Context (see Figure 2). Of note, the term *Harmonic* is used to reflect the focus on external demands and

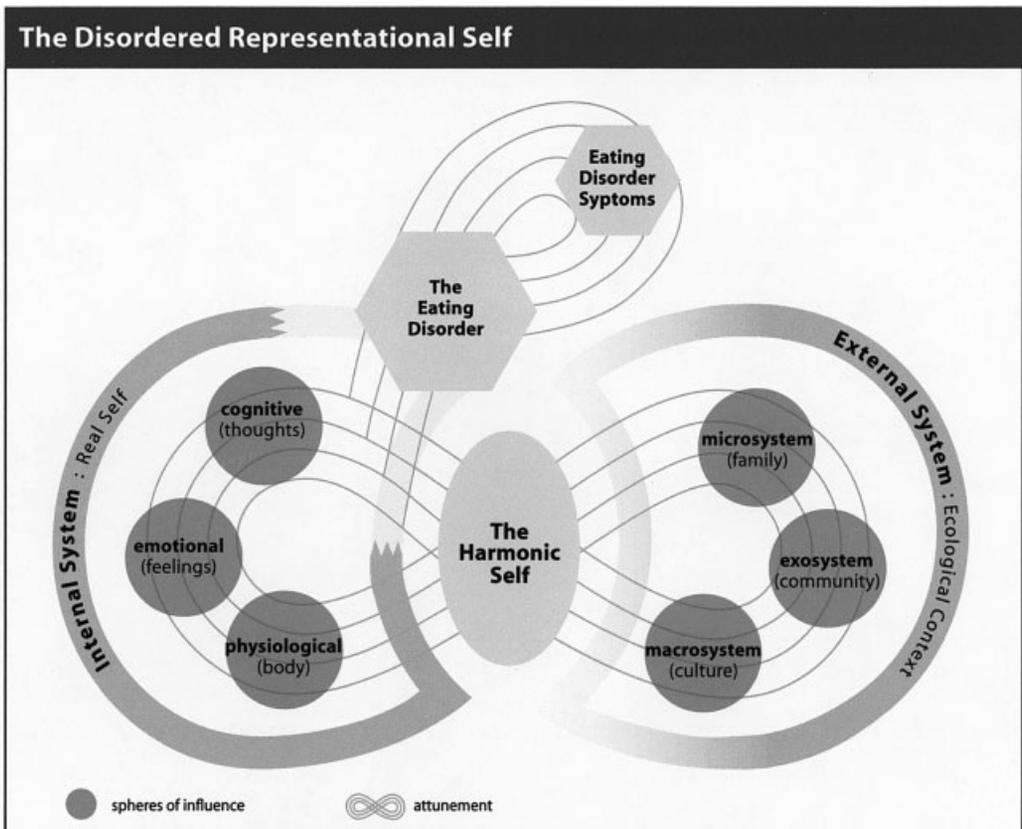


FIGURE 2. The Disordered Representational Self.

expectations. Purposely, the Representational Self is constructed to be in *harmony* with what the external system wants, expects, or needs. Based in part on the mode created by Myers and colleagues (2004), the construction of the Harmonic Self may vary based on etiological and symptomatic influences. To illustrate some possible manifestations: (a) the *Harmonic Ought*—more indicative of an Anorexia Nervosa typology (i.e., the self I think one should be; Myers et al., 2004), (b) the *Harmonic Ideal*—reflective of a Bulimia Nervosa typology (i.e., the self I wish I could be; Myers et al., 2004), or (c) the *Harmonic Response*—a possible expression of a mixed typology (i.e., the self you need me to be). For each manifestation, the illusion of authentic attunement is created as the Harmonic Representational Self is artificially attuned to the ecological system.

Misattunement and the Eating-Disordered Self

Perhaps most importantly, for each manifestation a secondary and symptom-generating effect remains. That is, the Real Self (i.e., the child's thought, feelings, and physiological needs) is left without a representation or an experience of attunement. For those who struggle with eating disorders, it is the creation of this void that allows behaviors that initially served to manage weight or size to develop into overwhelming clinical illness (e.g., Arnold, 2004). To fill the space and needs not filled by the Harmonic Self, the eating-disordered behaviors become more important and functional in the regulation of the individual's thoughts, feelings, and physiology. In a disordered manner, the Real Self becomes disproportionately *attuned* to the experience of the symptoms (see Figure 2). The result is a self-perpetuating, self-reinforcing disorder. In the most chronic and clinical cases, disordered self-attunement becomes the central organizing feature of the individual's life (e.g., Arnold, 2004). It may be, in part, the self-attunement combined with the false attunement with the external system that contribute to the treatment resistance for which eating-disorder symptoms are known.

PREVENTION AND THE ATTUNED REPRESENTATIONAL MODEL

Consistent with school-based best practices, the Attuned Representation Model prevention efforts are wellness oriented (Steck, Abrams, & Phelps, 2004). That is, efforts are focused on the support and construction of a Representational Self that can facilitate attunement within the family and other ecological systems as well as the simultaneous and ongoing maintenance of the child or adolescent's awareness and care of his or her own needs. Through support of system attunement, symptomatic development is prevented or attenuated.

Individual Applications

Individual-level prevention practice at school focuses on the student's unique issues of attunement among various aspects of his or her self system (e.g. cognitive, emotional, and/or physiological) and distinct microsystem (e.g., familial or close peer relations) and/or exosystem (e.g., teacher relationship and the learning environment) issues. The prevention focus is on maintaining child and external system attunement while helping the child negotiate his or her challenge or struggle. For example, if the child is presenting with emotional regulation difficulties and the family reports discomfort with affective experiences and communicating about such, the school psychologist can consult with the family regarding parenting strategies and communication techniques and provide concurrent individual supportive counseling and relaxation training with the child. These interventions, as prevention strategies, can serve to divert a potential path toward familial misattunement and compensatory symptomatology within the child. Consistent with empirical findings, the prevention goals would be enhancement of self-concept and emotional regulation, tolerance of negative affect and imperfection, and risk reduction (Jacobi et al., 2004).

In some cases, even with consultation, the attunement may not be maintained so easily. For example, a family experiencing a difficult divorce or a death may not be able to respond to the needs of their child due to the overwhelming emotional situational demands (e.g., Sbarra & Emery, 2005). Until the family is better able to respond to the child's needs, support of the child's expression of the Real Self through art, group work, writing, and/or supportive counseling can provide an outlet for his or her experience (e.g., Cook-Cottone, 2004). With the alternative expression and experience, the child can maintain his or her Authentic Self, leaving again less opportunity for symptomatic development. Individual prevention also involves identification of those likely to experience distress in regard to exosystem and macrosystem discordant dialogue discussed earlier. For example, these students might include those with weight issues or physiological variability (e.g., notably under- or overweight), signs of perfectionism and/or self-concept issues, and children with instability within the microsystem (e.g., those with history of familial trauma or distress; Jacobi et al., 2004). At-risk children would be referred to a prevention group specifically designed to address the discordant messages coming from the external systems and the internal self experience (e.g., Cook-Cottone, Kane, Scime, & Beck, 2005; Piran, 2001).

Group Approaches

The Attuned Representation Model is highly consistent with the more recent group-prevention paradigms (e.g., Cook-Cottone et al., 2005; Piran, 2001). Accordingly, there is a growing body of empirical evidence supporting the group-prevention efforts (e.g., Littleton & Ollendick, 2003; Piran, Levine, & Irving, 2000; Wade, Davidson, & O'Dea, 2003). The Attuned Representation Model would suggest that positive effects of a prevention program would be due to an increase cognitive, emotional, and physiological reciprocity, or attunement, among the internal system (i.e., Real Self) and the various components of the external system. The active, constructive prevention models appear to do this through both the group content (i.e., the topics addressed in group) as well as the group process (i.e., how the material is presented and processed).

Trends evident in successful programs suggest that there may be several critical content areas. These include self-care (e.g., nutrition, relaxation, emotional regulation; Cook-Cottone et al., 2005; Littleton & Ollendick, 2003; McVey & Davis, 2002), life skills (e.g., assertiveness and communication; Cook-Cottone et al., 2005; McVey & Davis, 2002), and world skills (e.g., media literacy and media activism; Cook-Cottone & Phelps, in press; Piran et al., 2000; Wade et al., 2003). The process has shifted from a psychoeducational approach to a more active constructivist approach (Cook-Cottone & Phelps, in press). The prevention-group members experience the group content through a series of hands-on, active experiences in which they practice skills, work on projects, and in some groups, engage in media or community activism (e.g., Cook-Cottone & Phelps, in press; Piran et al., 2000; Wade et al., 2003).

Together, content and process guide group members toward addressing the discordant messages that students hear about childhood obesity, their parents' and teachers' diets, the importance of a good body mass index, the media's celebration of oversized meals and disproportionately sized people, and the disparity between a cultural ideal and the physiologically healthy as the members work through the content areas of self-care, life skills, and world skills. Participants are able to work toward a healthy integration of the domains of self (i.e., thoughts, feelings, and body), to represent what they have learned to others in their world, and to potentially receive feedback on what they have created and learned (Cook-Cottone et al., 2005). It is theorized that through this constructive and interactive process, the Real Self and ecological context experience engagement and attunement (for more information about the content and process of group-prevention programs, see Littleton & Ollendick, 2003; McVey & Davis, 2002; Piran et al., 2000).

SUMMARY AND IMPLICATIONS FOR RESEARCH

The Attuned Representational Model provides a systemic approach to the ongoing cultural discordance, the role of individual skills and vulnerabilities, and the interface of these variables that has not been comprehensively addressed in other etiological and treatment models. The model weights individual and external influences as critical factors in etiology as well as emphasizes the importance of the ongoing reciprocity and engagement among the various subcomponents. Further, the mediating role of the child or adolescent's self representation is highlighted and explained in terms of its role in risk or resilience. Use of the model underscores the key role that school psychologists can play in helping students develop healthy communication and representational systems. Although there appears to be a good fit with the current state of research, empirical validation is needed. Empirical exploration using more advanced statistical techniques, such as concept mapping and structural equation modeling, may make the validation of such a comprehensive model possible. As our cultural trends continue to challenge the mental and physical health of our developing youth, such efforts are critical.

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