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Maladaptive schemas in adolescent females with anorexia nervosa and implications for treatment

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ABSTRACT

Recent research has highlighted the presence of Young's Early Maladaptive Schemas (EMSs) in individuals with an eating disorder (ED). This study assessed the EMSs reported by adolescent females with Anorexia Nervosa (AN) compared with a community group. Thirty-six adolescent females diagnosed with AN or subthreshold AN and 111 female secondary school students completed a questionnaire that included the Young Schema Questionnaire, the Behavior Assessment System for Children Self-report of Personality, and the Eating Disorder Screen for Primary Care. Two independent AN subtypes and two community subtypes were derived from responses to the questionnaire, and significant differences between the four comparison groups were found. High Pathology AN participants reported the highest level of psychological maladjustment. Social Isolation and Emotional Inhibition appeared to be most characteristic of adolescent AN in this sample. The results suggest that EMSs may require attention in the treatment of AN in adolescent females, and that different AN subtypes may require individualized treatment approaches.

1. Introduction

Individuals with an eating disorder (ED) have a tendency to base their self-worth largely on their eating, weight, or body shape, as well as their ability to control these aspects of their lives (Fairburn, Cooper, & Shafran, 2003). As such, cognitive theories of the development and maintenance of EDs suggest that ED symptoms are developed and maintained by negative automatic thoughts and dysfunctional assumptions about eating, weight, and body shape (Beck, 1976). This theory, however, has more recently been challenged by the proposal that eating, weight, and shape-related cognitions alone do not provide a sufficient account of the range of psychopathology experienced by individuals with an ED (Jones, Leung, & Harris, 2007). Maladaptive schemas that are not about eating, weight, and shape, have been suggested to underpin these ED cognitions (e.g., Waller, Kennerley, & Ohanian, 2007).

Young devised a theory of Early Maladaptive Schemas (EMSs), which are the dysfunctional and unconditional frameworks by which an individual perceives and processes their experiences and environment (Young, Klosko, & Weisharr, 2003). Young has thus far identified 18 EMSs (see Table 1), which are hypothesised to develop if one or more of the five universal emotional needs defined by Young are unmet during childhood (Young et al., 2003). These universal emotional childhood needs include: (1) secure attachments to others; (2) autonomy, competence, and sense of identity; (3) freedom to express valid needs and emotions; (4) spontaneity and play; and (5) realistic limits and self-control (Young et al., 2003).

There is a growing body of recent research that has demonstrated the presence of Young's EMSs in ED groups (e.g., Cooper, Rose, & Turner, 2006; Deas, Power, Collin, Yellowlees, & Grierson, 2011; Jones, Harris, & Leung, 2005; Leung, Waller, & Thomas, 1999; Waller, Ohanian, Meyer, & Osman, 2000). This research has identified that adult women diagnosed with an ED with bulimic symptoms have reported significantly higher levels of a number of EMSs compared with healthy control participants (e.g., Leung et al., 1999; Waller, 2003; Waller et al., 2000). Limited studies, however, have examined the presence of EMSs in adolescent females. The few studies with adolescents that have demonstrated a greater presence of EMSs in adolescents presenting with eating psychopathology have, however, included only community samples (Cooper et al., 2006; Muris, 2006). Waller, Cordery, et al. (2007), Waller, Kennerley, and Ohanian (2007) and Muris (2006) argue that there is a significant gap in studies examining EMSs in clinical adolescent samples, and that future research must concentrate on understanding the profile of EMSs in adolescent samples. Additionally, little is known about the EMSs specifically pertaining to AN. Given that AN most commonly develops during adolescence, an understanding of the presence of EMSs in adolescents with AN is warranted.

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Table 1
Summary of Young's Early Maladaptive Schemas (Young et al., 2003, pp. 14–17).

Schema	Description
1. Abandonment	The perceived instability or unreliability of those available for support and connection.
2. Mistrust	The expectation that others will hurt, abuse, humiliate, cheat, lie, manipulate, or take advantage.
3. Emotional deprivation	The expectation that one's desire for a normal degree of emotional support will not be adequately met by others.
4. Defectiveness	The feeling that one is defective, bad, unwanted, inferior, or invalid in important respects.
5. Social isolation	The feeling that one is isolated from the rest of the world, different from other people, and/or not part of any group or community.
6. Dependence	Belief that one is unable to handle one's everyday responsibilities in a competent manner, without considerable help from others.
7. Vulnerability to harm	Exaggerated fear that imminent catastrophe will strike at any time and that one will be unable to prevent it.
8. Enmeshment	Excessive emotional involvement and closeness with significant others (often parents) at the expense of full individuation or normal social development.
9. Failure	The belief that one has failed, will inevitably fail, or is fundamentally inadequate relative to one's peers in areas of achievement.
10. Entitlement	The belief that one is superior to other people; entitled to special rights and privileges; or not bound by the rules of reciprocity that guide normal social interaction.
11. Insufficient self-control	Pervasive difficulty or refusal to exercise sufficient self-control and frustration tolerance to achieve one's personal goals or to restrain the excessive expression from one's emotions and impulses.
12. Subjugation	Excessive surrendering of control to others because one feels coerced.
13. Self-sacrifice	Excessive focus on voluntarily meeting the needs of others in daily situations at the expense of one's own gratification.
14. Approval-seeking	Excessive emphasis on gaining approval, recognition, or attention from other people or on fitting in at the expense of developing a secure and true sense of self.
15. Negativity	A pervasive, lifelong focus on the negative aspects of life (pain, death, loss, disappointment, conflict, guilt, resentment, unsolved problems, potential mistakes, betrayal, things that could go wrong, etc.) while minimising or neglecting the positive or optimistic aspects.
16. Emotional inhibition	The excessive inhibition of spontaneous action, feeling, or communication, usually to avoid disapproval by others, feelings of shame, or losing control of one's impulses.
17. Unrelenting standards	The underlying belief that one must strive to meet very high internalised standards of behaviour and performance, usually to avoid criticism.
18. Punitiveness	The belief that people should be harshly punished for making mistakes.

Importantly, EMSs are typically resistant to change because individuals attempt to maintain cognitive consistency by distorting their perceptions of themselves and their environment in order to validate their schemas (Rafaeli, Bernstein, & Young, 2011; Young, 1999; Young et al., 2003). Hence, schema therapy was developed to treat typically treatment resistant disorders, such as personality disorders, not responding to traditional cognitive behavioural therapy (CBT; Young, 1999), and has shown to be particularly effective in samples of patients with borderline personality disorder (e.g., Farrell, Shaw, & Webber, 2009). Given that EDs are also typically resistant to treatment, often due to the complex and ingrained features of the disorder, such as poor self-esteem (Waller, Kennerley, & Ohanian, 2007), schema therapy has been proposed as a plausible addition to existing ED therapies (Waller, Cordery, et al., 2007; Waller, Kennerley, & Ohanian, 2007). Thus far, schema-focused therapy has been explored as an enhancement to CBT with adult samples presenting with bulimic behaviours, and preliminary investigations into its effectiveness have demonstrated clinically significant improvements in ED symptomatology (e.g., Simpson, Morrow, van Vreeswijk, & Reid, 2010). Given the typically treatment resistant nature of AN and the need to improve treatment in adolescents, it is proposed that the use of schema therapy be considered in collaboration with existing AN treatments.

Prior to investigating whether schema therapy may be effective in treating adolescents with AN, however, the presence of EMSs in adolescents with AN must first be investigated. To do so it is important to compare the EMSs of a clinical AN sample with those of healthy controls. Given that previous findings suggest that up to 14.6% of the general community have an ED (e.g., Favaro, Ferrara, & Santonastaso, 2003; Fernandez, Labrador, & Raich, 2007; Keel, Klump, Miller, McGue, & Iacono, 2005), we will endeavour to divide the community sample in to those at-risk and not at-risk of an ED based on the results of an ED screen, to ensure that a sample of healthy controls, at low risk of an ED, is compared with the clinical sample.

It is also necessary to understand how EMSs may differ between AN subtypes to better understand the potential use of schema therapy to treat adolescent AN. The previous research that has examined the presence of EMSs in ED samples has showed inconsistent results, with Waller et al. (2000) reporting no differences in EMSs among Bulimia Nervosa (BN), AN binge–purging subtype, and Binge-Eating Disorder (BED) patients, while Waller (2003) revealed that BED patients reported significantly higher scores on some EMSs than BN patients. These differences may be due to the different methodologies used in these studies. For example, Waller (2003) had a larger sample of BN and BED patients and participants were matched by age and gender, which was not applied in Waller et al.'s (2000) study.

Alternatively, these inconsistent findings may be due to the limitation of making comparisons among the diagnostic categories defined by the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*; American Psychiatric Association, 2013), rather than empirically derived ED subtypes based on psychological and behavioural characteristics related to the wider clinical presentation of EDs. Previous research has shown that clustering individuals with an ED based on characteristics beyond ED diagnostic criteria provides more clinically relevant subtypes of ED, which has implications for applying different treatment approaches to these derived subtypes (e.g., Turner, Bryant-Waugh, & Peveler, 2010). For example, researchers have identified the important role that negative affect can play in discriminating individuals on their eating psychopathology (Carrard, Crepin, Ceschi, Golay, & Linden, 2012). Specifically, Damiano, Reece, Reid, Atkins, and Patton (in press) used a two-step cluster analysis based on the general psychopathology of adolescent females with AN and found two clusters, namely Low Pathology AN and High Pathology AN, that differed on ED pathology. The High Pathology AN subtype reported a significantly more maladaptive profile in terms of eating pathology, general psychopathology, and family functioning, than the Low Pathology AN subtype (Damiano et al., in press). It was concluded that the statistically derived clusters somewhat resembled the existing *DSM* AN subtypes; however, they were derived on general psychopathology characteristics rather than ED symptoms (Damiano et al., in press). This highlights the need to better understand the underlying cognitions of this cohort. The present study endeavoured to explore AN subtypes based on general psychopathology in order to determine the associations with underlying cognitions.

The aim of this study was to identify the EMSs associated with adolescent AN by comparing the EMSs of adolescent females with AN and a community group. Based on the review of relevant literature, two statistically derived subtypes of AN and two community groups were compared. The AN subgroups were derived by replicating the methodology of Damiano et al. (in press) and labelled as Low Pathology AN and High Pathology AN. The community subgroups were derived from high