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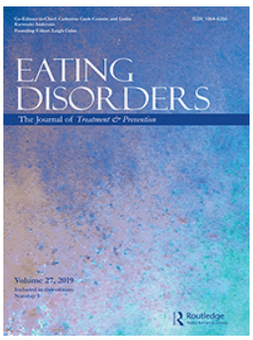

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Tackling mixed messages: Practitioner reflections on working with adolescents with atypical anorexia and their families

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ABSTRACT

The treatment of atypical anorexia nervosa (AN) poses new research and practice challenges for the field of eating disorders. The objective of this study was to describe frontline practitioners' perceptions of differences between adolescents living with atypical versus typical AN, as well as the intervention challenges they experience when working with these adolescents and their families. We followed the principles of fundamental qualitative description and recruited a purposeful sample of practitioners treating adolescent eating disorders to complete a one-on-one semi-structured interview. Conventional content analysis and the constant comparison technique were used for data analysis. A total of 23 practitioners from four countries participated in this study. Practitioners described that adolescents with atypical AN present with higher pre-morbid weights and rates of weight-based teasing compared to their AN peers. Clinical challenges perceived by practitioners to be specific to working with adolescents with atypical AN included: addressing conflicting messages about eating disorders and weight loss, empathizing with a justified fear of weight gain, and increased risk for parental and therapist collusion with the eating disorder. Findings have implications for delivering interventions to adolescents seeking care for atypical AN.

Clinical Implications

- Practitioners need to be attuned to the broader social influences on atypical AN.

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Supplemental data for this article can be accessed here

- Adolescents receive mixed messages about the impacts of weight loss from practitioners.
- Treatment should emphasize physical and psychosocial complications of weight loss.

Relative to anorexia nervosa (AN), bulimia nervosa, and binge eating disorder, a dearth of research literature has focused on atypical AN in children and adolescents. This is despite the fact that emerging evidence points to conspicuous differences between this patient population and adolescents with AN (e.g., Hughes, Le Grange, Court, & Sawyer, 2017; Olivo et al., 2018). Atypical AN, which falls under the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) diagnosis of Other Specified Food and Eating Disorders, occurs when an individual meets all criteria for AN, but despite significant weight loss, their current weight is within or above population norms for their sex and age. Despite its lower prevalence in community-based samples compared to other diagnoses (Stice, Marti, & Rohde, 2013), data from clinical samples indicate that atypical AN is increasingly common among adolescents presenting to specialized eating disorder programs (Mairs & Nicholls, 2016). For example, a retrospective chart review of admissions to an eating disorders program in Australia (2005–2010) reported a fivefold increase (8–47%) in the proportion of inpatient admissions for adolescents who presented with significant restriction and loss of weight, but who were not underweight (Whitelaw, Gilbertson, Lee, & Sawyer, 2014). These characteristics are now criteria for the DSM-5 diagnosis of atypical AN.

Importantly, adolescents with a diagnosis of atypical AN have been shown to experience a longer duration of illness relative to adolescents with AN, as well as adolescents with full or subthreshold bulimia nervosa and binge eating disorder. For example, in Stice et al.'s (2013) population-based study, across all incident and recurring episodes, average episode duration for adolescents with atypical AN was 11.2 months compared to 8.0 months for adolescents with AN. Average episode duration ranged between 2.9 and 5.9 months for all other eating disorder diagnoses. Similarly, among all first presentations of adolescents with AN and atypical AN between 2010 and 2014 to an Australian eating disorders program, those with atypical AN lost more weight and did so over a longer period of time compared to their AN peers (Sawyer, Whitelaw, Le Grange, Yeo, & Hughes, 2016). In addition, compared to adolescents with AN, those with atypical AN have been shown to have comparable genetic predispositions for eating disorders (Fairweather-Schmidt & Wade, 2014), equally or more severe rates of medical instability (Hudson, Nicholls, Lynn, & Viner, 2012; Peebles, Hardy, Wilson, & Lock, 2010; Pinhas, Morris, Crosby, & Katzman, 2011; Sawyer et al., 2016; Whitelaw et al., 2014), as well as equal or more pronounced distress related to food consumption, body image, suicidality, anxiety, and depression (Hughes

et al., 2017; Le Grange, Swanson, Crow, & Merikangas, 2012; Monge et al., 2015; Olivo et al., 2018; Sawyer et al., 2016; Wade & O'Shea, 2015) .

Notably, adolescents with atypical AN are significantly more likely than their AN peers to have been overweight or obese prior to the onset of their eating disorder (Sawyer et al., 2016). Atypical AN adolescents are also more likely to present to an eating disorder service with higher body weights than their AN counterparts (Kennedy et al., 2017). Research investigating explanatory factors related to differences between typical and atypical AN adolescents is minimal. However, of relevance is evidence which indicates that the general public continues to hold negative perceptions of individuals with higher body weight shapes (Puhl et al., 2015). In addition, recent literature documents a significant degree of weight-based bias and stigma among health-care providers (Phelan et al., 2015; Puhl, Luedicke, & Grilo, 2014), as well as among eating disorder professionals (Puhl, Latner, King, & Luedicke, 2014). If one considers that adolescents with atypical AN tend to experience and present with higher pre-morbid weights than their AN peers, then one could reasonably argue that the pervasiveness of weight-based stigma may partially explain the extent of psychosocial distress exhibited by atypical AN adolescents when presenting for treatment, as well as the delayed presentation of atypical AN adolescents to specialized eating disorder services (Kennedy et al., 2017). Weight-based bias may also partially explain the equivocal findings among emerging studies comparing recovery rates among adolescents diagnosed with atypical AN compared to their AN peers (Hughes et al., 2017; Lindstedt, Kjellin, & Gustafsson, 2017; Silen et al., 2015).

In spite of the emerging interest in the prevalence and outcomes of adolescents with atypical AN, it is striking that none of the research in this area has elicited the perspective of frontline practitioners. The perceptions of practitioners who have had the opportunity to provide intervention to adolescents with atypical AN provide an important ingress into: (a) the characteristics of these treatment-seeking adolescents, (b) the therapeutic strategies or considerations that may be necessary when working with this population, and (c) how these strategies or considerations may differ (if at all) from those used with adolescents with AN or other forms of disordered eating. From this perspective, the systematic collection of insight from practitioners has the potential to provide anticipatory guidance to the eating disorder field. More specifically, practitioners can speak to the factors may impact identification and intervention approaches for this growing and vulnerable population. To this end, the first aim of this study is to discern how eating disorder practitioners differentiate atypical AN and AN in their practice. Second, we aim to identify and describe any practice challenges experienced by practitioners when working with adolescents with atypical AN and their families.

Methods

Fundamental qualitative description was the research design selected to guide sampling, data collection, and data analysis procedures. This method is particularly useful for investigating the experiential phenomenon that has not previously received in-depth attention, and it acknowledges that the capturing of facts, experiences, and realities is critical for informing the possibilities for change in health-care practice (Bradshaw, Atkinson, & Doody, 2017; Sullivan-Bolyai, Bova, & Harper, 2005). The protocols and procedures implemented for the present study were reviewed and approved by the Research Ethics Board at the University of Calgary.

Setting

A purposeful sample of 23 practitioners who provide psychotherapeutic intervention with children and adolescents diagnosed for eating disorders participated in this study. To this end, participants were recruited using multiple strategies. The first involved sending an invitation e-mail to a roster of practitioners who completed Family-Based Treatment (FBT) training through the Training Institute for Child and Adolescent Eating Disorders, LLC. The Institute is a virtual entity that provides training opportunities to frontline practitioners in the field of eating disorders, and it is administered by staff affiliated with universities in North America, Europe, and Australia. Additionally, members of the research team were encouraged to distribute recruitment flyers to colleagues at their respective organizations and to encourage anyone who may be interested in participating to contact the Principle Investigator (PI; second author) to determine eligibility. Third, practitioners who completed the semi-structured interview were requested to share recruitment materials with colleagues that they felt may be eligible and interested in participating. Any practitioner who contacted the team and who met eligibility criteria was invited to participate in data collection processes. In addition to having completed some training in FBT, other eligibility criteria for participants consisted of: (1) being at least 18 years of age; (2) currently providing intervention to children and adolescents diagnosed with typical AN, as well as to adolescents diagnosed with atypical AN; and (3) having the ability to converse in English. It is important to note that the present study is a part of a larger program of research with the aim to investigate and understand the intervention experiences of practitioners working with adolescents who live with atypical and typical anorexia. For this reason and given parallel research questions which focused on practitioners' use of FBT with these patient populations, we purposefully recruited practitioners who self-identified as having *any level* of training in FBT and who previously or currently used the principles of FBT or a manualized version of FBT with adolescents with atypical

and typical AN. A parallel paper reporting on practitioners' perceptions and experiences of implementing FBT for adolescents with atypical AN and the adaptations that practitioners make to the FBT model when working with adolescents with atypical AN is currently under review.

Data collection

Data was collected through the use of individual, semi-structured interviews over the phone with the PI in 2017. Interviews were audio-recorded and transcribed verbatim by the research team. Our semi-structured interview guide included sequential, predetermined, and open-ended questions that were developed to elicit participants' perceptions and experiences of treating with adolescents living with atypical AN and AN. The open-endedness of the questions, as per Sandelowski (2000, 2010), allows for the opportunity for the interview facilitator to further probe about new concepts that may emerge throughout the duration of the interview and which may be incorporated into other participant interviews to explore their relevance and meaning.

Data analysis and methodological rigor

Sampling, data collection, and analysis procedures occurred through a parallel process, allowing the opportunity for new concepts that emerged in previous interviews to be evaluated among newly recruited participants. The computer software package QSR Nvivo 10 (QSR, 2014) was used to manage, sort, and code the data. More specifically, transcripts were analyzed using inductive conventional content analysis and the constant comparison technique (Miles, Huberman, & Saldana, 2014). This process involved the first author engaging in an initial reading of all of the transcripts, followed by a line-by-line reading and hand-coding of the textual data. As per guidelines for inductive conventional content analysis, initial codes were developed using the concepts of the interview guide, and additional codes were allowed to emerge through the iterative reading of each transcript and which concisely captured the perceptions and experiences by interview participants.

To ensure the dependability of the data analysis processes, the transcripts were independently hand-coded by the PI (second author) of the study. Second-level coding involves the collapsing of initial codes into broader categories—resulting in the tabulation of category properties and the establishment of relationships between categories. Second-level coding was informed by a telephone debrief between the PI and the first author (1.5 hours in length) regarding the first-level coding results. The aim of the debrief was to reach consensus on the development of categories. The tabulation process was captured by the first author generating an electronic codebook. The codebook was then systematically applied to all

transcripts in Nvivo 10 (QSR International Pty Ltd., 2014) by the first author's research assistant. The application of the codebook was verified by the first author of the present study. All team members reviewed and approved the codebook generated by the first author, as well as the interpretation of the findings presented in this manuscript to ensure their credibility and transferability within the broader context of pediatric eating disorders.

Results

A total of 23 practitioners participated in this study. Majority of participants were living in the United States (n = 19, 82.6%). All but one of the practitioners self-identified as female. With respect to disciplinary training, majority of the participants identified as a psychologist (n = 11, 47.8%). Among the 19 practitioners who reported on their experience working with individuals diagnosed with eating disorders, years of experience in this area ranged from 3 to 18 years. Supplementary File 1 provides greater detail pertaining to the demographics of the study sample. What follows is an overview of each of the categories generated in this study, as well as illustrative quotes supporting their development. Additional quotes supporting category development were extracted from the transcripts and can be found in Supplementary File 2.

Distinguishing atypical from typical AN

Higher pre-morbid weights, weight-based teasing, and variation in body image concerns

All participants described three key distinguishing features in the presentation of adolescents with atypical AN compared to their AN peers. The most salient of these features was that adolescents with atypical AN and their families typically describe a pre-morbid (i.e., pre-eating disorder) weight status that tends to be higher than that of adolescents presenting with typical AN. In many cases, adolescents with atypical AN report a pre-morbid weight that was in the overweight or obese range for their age and gender:

> I would say the most atypical component is that these kids that come from a high weight and lose weight…So, the differential of weight loss is similar…it's just that they [adolescents with atypical AN] do not look underweight when they first come to see me. (Par 21, p. 1)

Relatedly, practitioners were unequivocal in asserting that compared to adolescents with typical AN, those with atypical AN more frequently report a history of weight-based teasing by family members or their peers, and in some cases, this teasing has been significant and long standing. Practitioners were cognizant of the stigma perpetrated against children and adolescents whose body weight or shape does not fulfill societal ideals of thinness. With

this understanding in mind, they described that it is challenging to validate these concerns, while at the same time ensuring that this validation does not undermine the potential need for weight gain for medical stability.

> A lot of them have been bullied for their weight before, so that part becomes very tricky and I am not sure how quite to handle it. I think I muddle around a few different things to try to empathize with how awful that was, what that was like for them, and being very scared to be bullied again…a lot of those conversations happen in treatment as their weight is going up. (Par 23, p. 4)

Practitioners described that body image concerns are as intrinsically linked to the weight loss efforts of both AN and atypical AN adolescents and that the severity of body image concerns was not perceived to differ between these patient populations. However, practitioners described that for adolescents with AN, there is high dissatisfaction with their current body weight, and they are "stuck" on wanting to be thinner. On the contrary, adolescents with atypical AN are less rigid in their commitment to lose additional weight and, in some cases, will describe being content with their current weight status because it is significantly different than what it used to be.

"Appearance matters" for treatment buy-in. The practitioners unanimously described the need to counter parental and adolescent misperceptions of eating disorders and their appearance when working with atypical AN adolescents and their families. More specifically, practitioners spoke about the extent to which parents and adolescents remained resolute in their position that they/their child did not have an eating disorder because they/their child did not "look" emaciated. Practitioners shared that this steadfast position makes it challenging to engage atypical AN families in eating disorder intervention and even more challenging to have these families acknowledge and commit to weight gain as part of the intervention process. From the perspective of these practitioners, the visual markers of malnourishment with AN create a sense of urgency in parents compared to parents whose atypical AN adolescents do not have these visual markers of illness.

Practitioners also spoke to the broader implications of appearance on the identification of adolescents who may be suffering with atypical AN. From the practitioners' perspectives, the societal emphasis on thinness as a characteristic of AN pathology can preclude the identification of atypical AN adolescents in primary health-care contexts. As one practitioner aptly shared:

> I think that the medical system and the general practitioners aren't looking for it… because it is socially endorsed to be losing weight or to be restricting. I think in general, it goes unnoticed and I think with atypical it goes unnoticed even more because they are also at a weight that doesn't even present remotely like any disorder in terms of our social understandings. (Par 16, p. 2)

Practice challenges specific to working with adolescents with atypical AN and their families

With respect to practice challenges that practitioners described in relation to working with atypical AN adolescents and their families, they reported a need to: (a) persistently address conflicting messages about the health effects of weight gain and weight loss throughout the duration of treatment; (b) consistently address "justified" fears of weight gain; (c) more sensitively consider and address parental weight concerns and eating-related habits; and finally (d) be more conscious of parental and therapist collusion with the eating disorder.

Mixed messages

A pervasive challenge described across the entire sample of practitioners related to addressing the conflicting messages that adolescents with atypical AN and their parents have received in relation to weight loss and obesity. Practitioners described consistent messaging from the media, family physicians, and pediatricians about the physiological complications associated with being overweight, as well as, for overweight people, the importance of losing weight to reduce the risk of morbidity and mortality. Practitioners indicated that it made sense to them that adolescents with atypical AN and their parents often experience a tremendous amount of confusion and apprehension about an eating disorder diagnosis, given that they have also recently heard from other health-care practitioners that the adolescent needed to lose weight.

Compounding these conflicting messages is the pervasive degree of information that adolescents and their parents receive from the media pertaining to the health benefits of dieting and the complications of being overweight, as well as the ubiquitous degree of positive reinforcement that the adolescent has received for their weight loss from their general practitioner, family members, and peers. As one practitioner poignantly describes,

> I think there are a decent amount of…families of atypical AN kids who will come in … and they might say our pediatrician told us its fine and then I think that really causes some problems if they don't really, buy-in to that message that we're giving them because if there is a competing message between our team and referring physician or provider that maybe they've been with for years and years and years, I think they tend to be a little bit more inclined to go with the provider that they're familiar with and it's also probably more what they want to hear "everything is okay, she doesn't need to gain weight, go about your business." (Par 13, p.5)

A "justified" fear of weight gain

Nearly, the entire sample (n = 21) described a need for weight gain at the start of treating atypical AN among adolescents. Yet all participants indicated that when weight gain is necessary, the gains needed for recovery (relative to the

weight gain needed for adolescents with AN) are less clear. In acknowledging atypical AN adolescents' experiences of weight-based teasing, as well as the unwavering messages they have received in relation to the risks that are associated with being overweight, practitioners perceived atypical AN adolescents' fear of weight gain as a justified one. That is, the fear of weight gain and becoming overweight during treatment was described by practitioners as less "delusional" (Par 01, pg. 6) than the fear exemplified by adolescents with AN.

> I think in some ways, they are terrified that we are going to have them go back to a place where they may have been actually unhealthy. So, kind of working with everyone to understand that where we are going [with the weight] is helpful, is challenging. (Par 3, p. 2)

Similarly, throughout the interviews, the fear that practitioners described for adolescents coalesced with those described for parents. Practitioners indicated that parents of adolescents with atypical AN exhibit fear about the onset or continuation of weight-based social rejection by their child's peers, as well as a recurrence of an unhappiness that parents observed in their children when the child was at a higher weight. This was alluded to as a practice challenge that is distinct from the fears of parents whose adolescent is diagnosed with AN. Fears of the latter group tend to focus on the severe medical complications of starvation. When working with atypical AN families then, practitioners described the challenging need to validate adolescent and parental fears but also redirect the adolescent and their parents back to the physiological and psychological impacts of atypical AN and the potential need for weight gain.

Addressing parental eating habits and weight concerns

Practitioners shared that in their experience, atypical AN adolescents tend to live in families characterized by a greater number of individuals who have higher body weights. For these reasons, challenges related to addressing parental eating habits and weight status through the treatment process can be a fairly common occurrence. One practitioner speaks to this challenge with the following:

> Like the AN itself…uses the parent's weight as a way to get parents to back off you know and that may be more common with atypical AN: "well you and dad are fat, so you don't know what you're doing" which I think is a hurdle that you have to overcome to help them see that, that's a way for [the eating disorder] to get them [i.e. parents] to back off. (Par 1, p. 5)

Practitioners also described being cognizant that it may be necessary to provide nutritional coaching to parents of adolescents with atypical AN. Practitioners acknowledged that when parents are overweight or obese and follow diets that are consistently high in caloric intake, adolescents with atypical AN can find this particularly distressing throughout the treatment

process—this is especially the case if the adolescent is fearful of going back to a higher-than-average pre-morbid weight. To this end, practitioners described that there is a need to carefully determine whether an adolescent's resistance to the feeding practices of their parent(s) is justified versus resistance that is the function of a strong eating disorder.

Parental and therapist collusion with the eating disorder

Finally, compared to working with adolescents with typical AN, 9 of the 23 practitioners in this study described greater potential for collusion with the eating disorder among parents and practitioners. Participants shared that the non-emaciated appearance of atypical AN adolescents, the potential absence of medical complications, as well as pervasive positive reinforcement for weight loss may lead parents and practitioners to require less weight gain from the adolescent than may be necessary to support a full recovery from their eating disorder. Practitioners described that ensuring the parent does not collude with the eating disorder—or collude with broader narratives about body weight and shape—is a critical component to ensuring the successful treatment of adolescents with atypical AN. Practitioners also shared that this (i.e., ensuring the focus on gaining weight is not terminated prematurely) can be the most challenging aspect of working with atypical AN patients and their families. As described by one of the participants,

> I think the hardest thing…I think there are for kids and a lot of times for parents, getting them to wrap their head around that their kid has to be weight restored to a weight that is considered quote on quote "overweight" and that it is not unhealthy… I think is crucial for the cognitive recovery, it is really challenging. (Par 12, p. 4)

Discussion

This study demonstrates that frontline practitioners have invaluable insight into the characteristics of adolescents with atypical AN and their families and, notably, the challenges that individuals face when presenting for treatment with a body that does not fit the thin ideal or a body that is not perceived as emaciated. Practitioners skillfully spoke about considerations for adapting treatment for the unique needs of this population compared to those with AN. Importantly, participants' perceptions and experiences validated previously collected quantitative data indicating that adolescents with atypical AN tend to present with higher body weights than their AN peers (Sawyer et al., 2016). Practitioners' provided detailed accounts of how adolescents with atypical AN more commonly present with experiences of weight-based teasing from peers and family. Further, practitioners identified a key contrast between families of atypical AN versus AN, in that treatment buy-in was more difficult and nuanced for atypical patients and their

families. Specifically, practitioners discussed how they struggled to convince parents that their children were or could become medically at risk, despite not appearing emaciated.

The difficulty that families of non-emaciated adolescents have accepting the severity of their children's illness resonates with the work by Kennedy et al. (2017) who found that adolescents with a history of being overweight/obese were significantly less likely to receive inpatient medical care due to presenting at a higher weight compared to their non-previously overweight/obese peers. Collectively, our and Kennedy et al.'s (2017) findings may suggest that practitioners and their respective organizational or clinical processes may be implicitly biased toward admitting lower weight adolescents for more intensive forms of care. Compounding these concerns, findings from the present study as well as Hughes and colleagues (2017) indicate that parents of adolescents with atypical AN often do not perceive the physical manifestations of the eating disorder as urgent. This misperception can draw out the initialization of treatment and follow through and intensify the risk that the adolescent may go on to have a more severe and prolonged course of illness. Given that research focused on adolescents with atypical AN is in its infancy, studies capable of robustly identifying program, practitioner, family, and adolescent factors which have the potential to facilitate early identification, treatment initiation, treatment completion, and recovery are needed.

Unique practice challenges while working with atypical AN families were illustrated in this study. While living in a society that rewards and promotes thinness (Anderson & Hesse-Biber, 2008), practitioners indicated that it remains challenging to leverage parental and adolescent buy-in to the urgency of treatment, regardless of the families' awareness of the medical complications of pronounced weight loss. Results from our study and Kennedy et al. (2017) point to an overemphasis on weight presentation at treatment referral or service intake. These findings contribute to the mixed discourses regarding the weight one must be or how one must "appear" (i.e., emaciated)—rather than the degree of weight loss—in order to be flagged as in need of intervention. Further, this finding is closely tied to practitioner's accounts of a "justified" fear of weight gain in adolescents who were diagnosed with atypical AN and were pre-morbidly overweight or obese. Practitioners reported the challenges of balancing empathy for adolescent fear of weight gain (which was tied to the knowledge that weight gain may result in the adolescent going back to being overweight or obese), their knowledge about the dangers of weight-based teasing, and their knowledge about the risks of unresolved disordered eating and ongoing weight loss.

Finally, this study highlights a unique practice challenge for treating atypical AN; that is, the extent to which weight gain or weight restoration is required for remission from atypical AN is not clear. It is possible that

a prolonged period of normalized nutrition may facilitate physiological and psychological recovery from atypical AN. For example, Hughes et al. (2017) implemented outpatient FBT with atypical AN adolescents and determined that eating disorder symptomatology improved without weight gain or restoration, suggesting that weight gain as an intervention strategy for adolescents with atypical AN may not always be necessary. Despite this available evidence, 21 of the 23 practitioners in the present study indicated that they readily pursue weight gain for all adolescents with atypical AN, and the remaining two participants indicated that this is common (but not always required).

It is important to note that approximately 50% of the adolescents included in Hughes et al.'s (2017) sample were first admitted as inpatients and gained weight ($\bar{x}$ = 2.21 kg, sd = 2.09, range = −1.45 to +8.15 kg) during the course of their hospital stay. In addition, many practitioners in the present study were adamant that cognitive symptoms relating to disordered eating will rarely fully attenuate without full weight restoration. Similarly, practitioners postulated in this study that prematurely ceasing weight gain for atypical AN adolescents may be an indicator of greater risk when working with these adolescents for collusion with the eating disorder. Further complicating this potential challenge is the extent of parental resistance for continued weight gain for their atypical AN child. Such resistance is not surprising, given that fear of "fatness" and weight-based bias have been noted in the broader community, among health-care providers, as well as eating disorder professionals, resulting in the disproportionate stigmatization and discrimination of heavy bodies (Phelan et al., 2015; Puhl, Luedicke, & Grilo, 2014; Puhl et al., 2014). Herein lies a complex professional challenge for the eating disorder practitioner working with adolescents with atypical AN. There is a need to balance: (a) the lack of quantitative evidence detailing the positive impacts of weight gain on eating disorder symptomatology among normal weight adolescents, (b) the evidence detailing the benefits of weight gain for underweight adolescents with an eating disorder (e.g., Le Grange, Accurso, Lock, Agras, & Bryson, 2014), and (c) the evidence detailing the short- and long-term physiological and psychosocial impacts of being overweight (e.g., Global Burden of Disease Collaborators 2015Obesity Collaborators, 2017). Adequately powered studies capable of evaluating the independent and intersecting impacts of weight-status, weight-gain, weight-maintenance, and nutritional intake, as well as weight-based attitudes among parents, patients and practitioners on the experiences of adolescents with atypical AN.

Implications for clinical practice and practitioner education

Results from this study suggest that weight-based bias in the eating disorder treatment field has the potential to negatively impact appropriate

identification and intervention among adolescents living with atypical AN. Even more concerning is that intra-individual biases can be exacerbated by program or system-level referral, assessment, and intake processes that are not attuned to the non-emaciated feature of atypical AN presentations. We would argue that explicit and systemic efforts to reduce weight-based bias among eating disorder treatment providers and their multidisciplinary treatment colleagues may be needed. Unfortunately, optimal training approaches to support practitioner reductions in weight-based bias, as well as its impacts on the identification and treatment of atypical AN (or eating disorders more generally) have not been identified. In addition, evaluations demonstrating that reductions in weight-based bias translate to improved outcomes among adolescents with atypical AN or other eating disorders are needed.

A systematic review by Alberga and colleagues (2016) suggests that there are educational strategies that demonstrate efficacy for reducing weight-based bias among the health disciplines, including: (a) emphasizing the biological, genetic, and environmental factors in the etiology of obesity and which are peripheral to individual control, and (b) presenting information and case-based examples that challenge common negative weight-based stereotypes. According to Alberga et al. (2016), these strategies have been implemented using a variety of modalities, including didactic lectures, reading materials, and educational films. Importantly however, none of the included studies examined the impacts of the educational interventions on the identification of eating disorder patients, nor did they incorporate explicit information about atypical AN or other eating disorders. Notably, for one of the 17 included studies, reductions in weight-based biases were not maintained over time and participant biases reverted to baseline levels by the 12-month follow-up period (Alberga et al., 2016; Kushner, Zeiss, Feinglass, & Yelen, 2014). Finally, Alberga et al. (2016) note that there has been a disproportionate focus on pre-service trainees, with only two of the included studies involving practicing health professionals. It is likely that a combination of educational strategies and modalities is necessary to uniformly address weight-based biases in the eating disorder treatment field. Importantly, efforts should include both pre-service and in-service individuals.

From a clinical perspective, practitioners indicated that explicitly highlighting the negative physiological and psychological impacts of rapid and significant weight loss appears to be a necessary pre-requisite for engaging atypical AN adolescents and their caregivers in intervention. In addition, calling attention to the broader socio-emotional impacts of the adolescent's disordered eating (e.g., reduced time with peers, mood instability, etc.) was identified as poignant strategy to support adolescents and their parents to come to terms with the negative sequelae of weight loss and disordered eating. Linking closely with general practitioners in the community to create opportunities to dialog about the insidious nature of eating disorders and their impacts could prove to be fruitful for improving identification of

atypical AN. In addition, ongoing multidisciplinary meetings that include adolescents' general health practitioners or pediatricians, as well as the adolescent and their caregivers, could be facilitative for reducing conflicting messages about the impacts of weight gain on health emotional and physiological development.

Limitations of this work include its purposeful sample, overrepresentation of practitioners in the USA, and an inability to detail the characteristics of non-participants. In addition, all practitioners had undergone similar baseline training in FBT and were utilizing the FBT model, to some degree, with this patient population. Thus, it is possible that this study's findings may not generalize to practitioners treating atypical AN with a non-FBT approach. This limitation provides the impetus for triangulating the present results with the experiences of practitioners who do not utilize FBT to treat adolescent atypical AN. Further, there is a need for researchers to gather insight from the perspectives of adolescents with atypical AN and their families; doing so offers an opportunity to develop guidance for clinicians that is specific to increasing buy-in to intervention processes, appropriately validating the mixed messages that may be received by adolescents with atypical AN and their families, as well as identifying potential barriers to fostering engagement with therapeutic processes.

Lastly, insight from general practitioners remains an important omission in the eating disorder literature. This is particularly concerning given that a significant proportion of adolescents with eating disorders are referred to specialty care by these providers (House et al., 2012), and they often continue to provide collaborative care and medical management throughout eating disorder treatment. Being attuned to the potential for disordered eating onset regardless of weight status is a principle precursor to timely identification and referral. For this reason, knowledge and skill development with respect to the antecedents and correlates of atypical AN among primary-, secondary-, and tertiary-care providers presents an important opportunity to improve disordered eating prevention, identification, and treatment. In addition, and in light of the limited evidence detailing effective interventions for the atypical AN population, practitioners should work closely with their interdisciplinary colleagues to carefully assess, plan, and implement a model of care that is attuned to the complex factors that may be impacting treatment initiation, completion, and outcomes.

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