

RESEARCH ARTICLE

Parental Involvement and Child and Adolescent Eating Disorders: Perspectives from Residents in Psychiatry, Pediatrics, and Family Medicine

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Abstract

Objectives: Best practice guidelines encourage the involvement of parents in the assessment and treatment of child/ adolescent eating disorders (ED). This study investigated medical residents' perspectives regarding parental involvement as well as their expectations for future practice in the assessment and treatment of ED. Method: Five hundred and eighty-four medical residents from 17 Canadian residency programs specializing in family medicine, pediatrics, and psychiatry completed a web-based survey. Questions pertained to assessment and treatment practices for child/adolescent ED. Analyses included ANOVAs, paired t-tests, and, for residents who endorsed family involvement (N = 444), qualitative content analysis. Results: Overall, residents reported that they "mostly" agreed with the involvement of family in the assessment and treatment of ED. Residents' endorsement of family involvement in both domains increased according to the extent of ED training received. Four major themes emerged from the content analysis of family involvement and included recommendations in line with evidence-based models and unspecified, passive involvement in the assessment and recovery process. Conclusions: Many residents endorse family involvement in both assessment and treatment; however, understanding of the nature of such involvement is often vague. Training in evidence- based protocols is necessary for residents planning to engage in multi-disciplinary assessment, referral, and/or treatment in their future practice.

Key Words: family-based therapy, mental health, eating disorders, medical training



Résumé

Objectifs: Les lignes directrices des pratiques exemplaires encouragent la participation des parents à l'évaluation et au traitement des troubles alimentaires (TA) des enfants/adolescents. Cette étude a sondé les points de vue des résidents en médecine à l'égard de la participation parentale et de leurs attentes à eux quant à la pratique future de l'évaluation et du traitement des TA. **Méthode:** Cinq cent quatre-vingts résidents en médecine de 17 programmes de résidence canadiens se spécialisant en médecine familiale, en pédiatrie et en psychiatrie ont répondu à un sondage en ligne. Les questions portaient sur les pratiques d'évaluation et de traitement des TA pour les enfants/adolescents. Les analyses comprenaient des analyses de variance, des tests t jumelés, et, pour les résidents qui appuyaient la participation familiale (N = 444), une analyse qualitative de contenu. **Résultats:** En général, les résidents ont déclaré qu'ils étaient « majoritairement » d'accord avec la participation de la famille à l'évaluation et au traitement des TA. L'appui des résidents à la participation familiale dans les deux domaines augmentait selon l'étendue de la formation reçue sur les TA. Quatre thèmes majeurs se sont dégagés de l'analyse de contenu de la participation familiale et ils incluaient des recommandations conformes aux modèles

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fondés sur des données probantes, et à la participation passive, indéterminée au processus d'évaluation et de traitement. Conclusions: De nombreux résidents appuient la participation familiale tant à l'évaluation qu'au traitement, cependant, la compréhension de la nature de cette participation est souvent vague. La formation en matière de protocoles fondés sur des données probantes est nécessaire pour les résidents qui prévoient exercer l'évaluation multidisciplinaire, l'aiguillage et/ou le traitement multidisciplinaire dans leur future pratique.

Mots clés: thérapie familiale, santé mentale, troubles alimentaires, formation médicale

Introduction

Eating disorders (ED) are chronic, debilitating, and lifethreatening illnesses that are associated with premature mortality (Gowers & Bryant-Waugh, 2004; Smink, van Hoeken, & Hoek, 2013), and are considered the most lethal of all psychiatric illnesses (Reijonen, Pratt, Patel, & Greydanus, 2003). When occurring in adolescence, ED can result in up to a 25-year reduction in lifespan (Norris, Bondy, & Pinhas, 2011), as well as impaired quality of life (Jenkins, Hoste, Meyer, & Blissett, 2011).

The Role of the Parent

Parents are considered key informants in the assessment of child and adolescent ED, especially since the minimization and denial of symptoms are common clinical presentations (Couturier & Van Blyderveen, 2012; Loeb, Brown, & Goldstein, 2011). The American Psychiatric Association (2010) practice guidelines for the treatment of ED specify that family involvement in the initial assessment for an ED in children and adolescents is essential. The guidelines also indicate that parental involvement in the monitoring of ED symptoms and behaviours is crucial (American Psychiatric Association, 2010). Parental involvement in treatment has also been found to reduce symptom severity and treatment attrition rates, and has been a primary focus of research and practice change over the last ten years (Halmi, Agras, Crow, Mitchell, Wilson, Bryson, & Kraemer, 2005; Le Grange, Crosby, Rathouz, & Leventhal, 2007; Lock, Couturier, & Agras, 2006). In fact, therapies that assign parents with a pivotal role in their child's recovery, as well as support the needs of the parent, are regarded as the best practice for the treatment of child and adolescent ED (Le Grange & Eisler, 2009; Loeb & le Grange 2012). In line with this, the National Institute for Health and Care Excellence (2004) recommends that, in conjunction with medical monitoring, family interventions should be used to treat children and adolescents with ED.

Primary among such therapies is Family-based Treatment (FBT). To date, there is more empirical evidence supporting the use of FBT for the treatment of ED in children and adolescents with AN than any other therapy (Eisler, Dare, Hodes, Russell, Dodge, & Le Grange, 2000; Gowers et al., 2007; Lock, Agras, Bryson, & Kraemer, 2005; Lock, Le Grange, Agras, Moye, Bryson, & Jo, 2010; Russell, Szmukler, Dare, & Eisler, 1987). Further, the American Academy of Child and Adolescent Psychiatry reports that, in the context of treating adolescents with AN, family therapy, particularly FBT, "is effective and superior to comparison individual therapies" (Lock & La Via, 2015). FBT consists of three treatment phases. In phase 1, parents are encouraged to take complete control over their child's eating. In phase 2, parents begin to return control over to the child and phase 3 focuses on the child's identity and autonomy development (Lock & Le Grange, 2013). Parents are empowered by the clinician to take charge of their child's recovery in the home setting, regardless of their child's age or level of motivation (Lock & Le Grange, 2013). In fact, a hallmark of FBT is the primary role of parents as agents of change.

Medical Residents' Knowledge of and Comfort with ED

Although parental involvement in the assessment and treatment of child and adolescent ED is considered best practice, a significant proportion of family physicians do not regularly involve families in either domain, and the nature of such involvement is unclear (Lafrance Robinson, Boachie, & Lafrance, 2012). In a study investigating the level of physician and psychologist knowledge of, and comfort with assessing and treating ED, only one third of participants reported that they "always" involve the family (Lafrance Robinson et al., 2012).

Similarly, in a study conducted by Girz, Lafrance Robinson, and Tessier (2014) medical residents were surveyed regarding their comfort with and knowledge of ED assessment and treatment practices for children and adolescents. In North America, a medical "resident" is an individual who is undergoing post-graduate training/education under the supervision of a senior physician (American Academy of Family Physicians, 2017; Association of Faculties of Medicine of Canada, 2015). While residents responded with a fair degree of accuracy to questions regarding ED assessment, their responses to questions regarding knowledge of treatment were not in line with best practice guidelines and sometimes in direct opposition. For example, only 10.5% of participants correctly endorsed the true statement: "It is more the parents' responsibility than the child's to bring their child to recovery from an eating disorder" (Girz et al., 2014). Further, only 20.8% of participants correctly identified the false statement: "While parents are important, children with eating disorders will never get better until they receive some sort of individual therapy themselves" (Girz et al., 2014). These beliefs not only contradict the underpinnings of FBT that emphasize parental involvement, but they could lead to problems in the coordination of care between medical professionals and FBT clinicians.

Given that level of training has been found to correlate with comfort with screening, assessing, managing, or treating ED (Boule & McSherry, 2002; Clarke & Polimeni-Walker, 2004; Girz et al., 2014), it is possible that it may correlate with a clinician's inclination to involve parents in the assessment and treatment progress as well. For example, in a study that assessed medical providers practices with ED, those with greater self-assessed knowledge, skills, and training were more likely to endorse universal screening for EDs than those who reported having less knowledge, skills, and training (Boule & McSherry, 2002). Girz and colleagues (2014) also determined that medical resident's comfort with ED assessment, management, and treatment increased with the greater the hours of specialized ED training they received. The highest reported comfort was found in those with more than ten hours of specialized ED training (Girz et al., 2014). Little is known however, about the relationship between hours of training and endorsement of family involvement in the assessment and treatment process and this is worthy of further investigation.

Current Study

On the basis of survey data collected from medical residents from family medicine, psychiatry, and pediatrics – specialty areas most likely to encounter child and adolescent ED cases - the current study will examine residents' (a) level of agreement with family involvement in the assessment of an ED by speciality and training intensity; (b) level of agreement with family involvement in the treatment of an ED by speciality and training intensity; (c) expectations for involvement in the assessment and treatment of ED, and (d) perspectives regarding the nature of family involvement via qualitative analysis of open-ended survey responses.

Methods

Based on previously published survey instruments and feed-back from medical residents and clinicians in the field, a 19-item web-based survey was developed (Boule & McSherry, 2002; Clarke & Polimeni-Walker, 2004; Girz et al., 2014; Lafrance Robinson Boachie, & Lafrance, 2013). As part of a larger study, this survey assessed knowledge of assessment and treatment practices for child and adolescent eating disorders, as well as details related to residents' training in these areas. Qualitative questions regarding their views of family involvement in the assessment and treatment of eating disorders were also included. Medical education

coordinators at the seventeen Canadian residency programs were asked to share a link to the survey to medical residents training in the following speciality areas: family medicine, pediatrics, psychiatry, internal medicine, emergency medicine, obstetrics, and gynecology. The survey was open for six months to allow time for it to be disseminated to all resident programs Canada. Approval by a Research Ethics Board was granted prior to data collection.

Data from 584 medical residents from the following specialities were included in the analyses: family medicine (n = 275, 47.1%), pediatrics (n = 96, 16.4%), and psychiatry (n = 213, 36.5%) for a response rate of 13.8%, according to the Canadian Post-M.D. registry.¹

One-way ANOVAs with Bonferroni post hoc tests were used to examine differences in the endorsement of family involvement in the assessment and treatment of ED across medical specialties, as well as the effect of training on its endorsement.

For those participants who endorsed family involvement in the assessment and treatment of ED at any level (n = 444), a consensual qualitative approach was employed to summarize their perspectives. Conventional content analysis of the open-ended question regarding residents' views about the nature of parental involvement in the assessment and treatment of their child's ED was completed. In line with a key tenet of a consensual qualitative approach, consensus among multiple researchers and the input of an additional auditor was used to reduce researcher bias (Yeh & Inman, 2007). Using conventional content analysis the researchers engaged in a multi-step analysis process. Initially, two researchers independently reviewed all responses to immerse themselves in the data. Independently they reviewed the data for a second time and identified codes based on key words that they felt represented key concepts. Next, the researchers created labels for emerging categories that were reflective of several related codes.

The researchers then reviewed their labels together and reached a consensus on 22 categories to represent the groupings that had initially emerged from the data. Level of agreement among researchers was 95.6 percent, $\kappa = .9$, p <.001. In the second phase of analysis, the researchers independently clustered the 22 categories based on links identified between them. The researchers then compared their clusters and agreed upon nine overarching groups, which were labeled as "themes". A third researcher then reviewed the categories and corresponding themes and made two suggestions, both of which consisted of combining related themes. The initial two coders reviewed these changes and consensus was achieved. These changes resulted in a final total of six themes. In the final phase the themes were organized as "major" and "minor" themes based on the frequencies of the responses within each group. All themes were considered relevant within the overall picture that emerged

¹These specialities were chosen for analysis as these physicians are likely to be the first contact for children/adolescents with ED.

Table 1. Mean endorsement of family involvement in assessment/treatment by resident specialty								
	Endorsement of family involvement in assessment Mean (SD)	Endorsement of family involvement in treatment Mean (SD)						
Family medicine	4.12(0.35) ^a	4.28(0.78) ^a						
Pediatrics	4.29(0.81) ^{a,b}	4.65(0.62) ^b						
Psychiatry	4.32(0.84) ^b	4.46(0.76) ^b						
1 - Not At All 2 - Slightly 3 - Somewhat 4 - Mostly 5 - Very Much So								

I = Not At All, 2 = Slightly, 3 = Somewhat, 4 = Mostly, 5 = Very Much So.

Different superscripts denote significant differences (p < 0.05) between groups not sharing the same superscript. Identical superscripts denote no significant difference.

	Endorsement of family involvement in assessment Mean (SD)	Endorsement of family involvement in treatment Mean (SD)		
> 10 hours of training	4.59(0.59) ^a	4.72(0.56) ^a		
6-10 hours of training	4.12(0.94) ^b	4.42(0.74) ^b		
1-5 hours of training	4.08(0.86) ^b	4.30(0.75) ^b		
< 1 hour of training	4.19(0.88) ^b	4.24(0.88) ^b		
1 = Not At All, 2 = Slightly, 3 = Somew Different superscripts denote significant denote no significant difference.	hat, 4 = Mostly, 5 = Very Much So. nt differences (p < 0.05) between groups not sharing t	he same superscript. Identical superscripts		

from the data; however, themes endorsed by less than 10% of respondents were labeled as minor themes whereas themes endorsed by more than 10% were labelled major themes. This process differentiated themes that were heavily endorsed from those that were less frequently identified. It is also important to note that participants were given the opportunity to write as much as they wished on the subject; therefore, most participants' responses encapsulated multiple categories and/or themes (N = 936).

Results

Level of Agreement with Family Involvement in the Assessment of ED

Participants rated their level of agreement with family involvement in the assessment of an ED on a scale from 1 (not at all) to 5 (very much so). The mean response was 4.2 (SD = 0.8), with a median response of 4.0 (mostly).

Significant differences in agreement with family involvement in assessment were observed across areas of training, F(2, 583) = 3.911, p = 0.021 with endorsement of family involvement higher among psychiatry residents than among family medicine residents (see Table 1). Hours of training were also significantly associated with endorsement of family involvement in assessment, F(3, 580) = 11.556, p < 0.001. Endorsement of family involvement was higher among residents with greater than 10 hours of training specifically related to ED than among those with 6-10, 1-5, or less than one hour of training (see Table 2).

Level of Agreement with Family Involvement in the Treatment of an ED

Participants also rated their level of agreement with family involvement in treatment of an ED on a scale from 1 (not at all) to 5 (very much so). The mean response was 4.4 (SD = 0.8), with a median response of 5.0 (very much so).

Significant differences in agreement with family involvement in treatment were observed across areas of training, F(2, 580) = 9.468, p < 0.001, with endorsement of family involvement lower among family medicine residents than among pediatric and psychiatry residents. Hours of training were also significantly associated with endorsement of family involvement in treatment, F(3, 578) = 11.371, p < 0.001. Endorsement of family involvement higher among residents with greater than 10 hours of training specifically related to ED than among those with 6-10, 1-5, or less than one hour of training (see Table 2).

Expectations for Involvement in Assessment and Treatment of ED

Overall, 75% of participants reported plans to be involved in the assessment and/or treatment of child/adolescent ED in their future practice, with anticipated areas of practice varying from assessment/referral to the medication management to provision of counselling (see Table 3).

Independent samples T-tests showed that plans to be involved in the assessment and/or treatment of child/adolescent ED in future practice were not associated with scores on endorsement of family involvement in assessment, t(579) = 3.706, p = 0.967, or treatment, t(577) = 1.137, p =

Table 3. Anticipated practice areas among physicians endorsing plans to be involved in assessment and/or treatment of child/adolescent eating disorders (74% of sample; (n = 434)

Future practice areas	% endorsement (n)		
Assessment	89% (387)		
Referral	82% (357)		
Diagnosis	80% (346)		
Medical management	70% (302)		
Medication management	33% (143)		
Nutrition	31% (133)		
Counselling/individual therapy	28% (122)		
Education about exercise	25% (107)		
Family therapy	25% (108)		

0.256. Likewise, participants with high endorsement of family involvement in assessment (Mostly or Very Much So) were not more likely than participants with lower endorsement family involvement in assessment (Not At All, Slightly, or Somewhat) to report plans for involvement in the future assessment and/or treatment of child/adolescent ED, $(X^2(4) = 5.872, p = 0.209)$.

Views of the Nature of Family Involvement

The final analyses resulted in four major themes and two minor themes pertaining to residents' views of family involvement in the assessment and treatment of ED disorders.

i. To monitor client and provide clinician with information on clients' progress

When asked to describe their view of the ways in which families should be involved, 310 respondents (69.8%) of respondents indicated that the family's main role is to be informed of the treatment plan, to provide collateral information, and to monitor and report to clinician the client's progress. For example, some participants stated that "the family needs to understand the disease process and be given realistic expectations about the course of treatment". Other participant responses in this theme describe parents as "suppliers of information," and indicated that their main role is to provide "collateral history" and to "monitor [the] child or adolescent at home".

ii. To provide active support relating to food and refeeding

A second over-arching theme contained responses that family involvement should involve active support relating to food and refeeding. Two hundred and eighty-two respondents (63.5%) provided responses related to this theme. For instance, residents made reference to changing food behaviours at home, such as helping the child to "make food"

choices, providing an environment where they can feel safe eating." Participants also mentioned supporting adherence to treatment, for example, being in control of "dietary planning" and "portioning of food." Learning skills to support child's treatment, such as "role modeling healthy eating habits" and completely regaining control of child's eating, for instance, "family can help with treatment to remove the control of food from the patient," were additional ways in which residents felt the family should be involved. Some also indicated that "parents should be empowered to be responsible for their children's eating - at least initially".

iii. To provide unspecified involvement

Two hundred and eighteen respondents (49.1%) signified an underlying importance for family involvement but did not identify any specific ways in which they would involve the family. Responses in this theme referred to generalized support from the parent, for instance, "as a support for the patient"; involvement and support in treatment with no further specified detail i.e. "a family that is participatory in treatment is immensely helpful"; and simply that it would be important or crucial for families to be involved without explanation as to how exactly they would be involved, for example, "family involvement is critical."

iv. To target and address family issues and relationships dynamics

Sixty-one participants (13.7%) provided responses that reflected that families should be involved in the treatment of their child or adolescent's ED in order to target and address family issues and relationship dynamics. For example residents stated that, "family dynamics often play a role in the incidence of this problem and should be worked on to allow optimal treatment." More specifically, residents referred to addressing family's views about food, for example, "parents also need direction in challenging their own assumptions about disordered eating behaviours." They also indicated it is important to address family related issues and stressors that may be maintaining or enabling the ED symptoms. For example one resident suggested "exploring family dynamics and communication patterns to help support healing of the patient within the family system.' Some participants responded that it is also important for the family to be supported in their role as caregiver of a child or adolescent ED. For example, residents reported that "to support the family would be helpful" and suggested "parallel support with [the] therapist to deal with parent/child issues and stresses.'

v. Minor Themes

Two additional minor themes were noted with reduced frequency or lack of specificity, but worthy of mention. For example, 38 respondents (8.6%) indicated that the role of the family is to provide moral, psychological and emotional support as well as "day to day reassurance" for the patient. For instance, respondents indicated that parent's role

Major themes	n	Percentage of respondents	Percentage of total responses	Categories	n	Percentage of respondents
To monitor client and provide clinician with information on clients' progress.	310 69.8%	33.1%	To provide collateral information	147	33.1%	
				To receive psycho- education	69	15.5%
				To be on board with treatment plan	39	8.8%
				To monitor	24	5.4%
				To report to clinician	15	3.4%
				To be aware of treatment plan	13	2.9%
			To accompany to appointments	3	0.7%	
To provide active support relating to food and refeeding	282 63.5%	30.1%	To engage in family-based therapy	111	25.0%	
			To support adherence to treatment	59	13.3%	
			To engage in family therapy	51	11.5%	
			To regain control	22	5.0%	
			To change food behaviors at home	20	4.5%	
				To role model	14	3.2%
			To learn skills to support treatment	5	1.1%	
To provide unspecified involvement	218 49.1%	23.3%	To provide unspecified support	113	25.5%	
				To be involved in treatment	64	14.4%
			To be involved in general	26	5.9%	
			To provide treatment support	15	3.4%	
To target and address family	61 13.7%	6.5%	To address family issues	40	9.0%	
issues and relationships dynamics			To receive their own therapy	10	2.3%	
			To address family's views about food	7	1.6%	
				To support and empower parents	4	0.9%

is to assist with "patient motivation," become "psychosocial supports," and "support/encourage" the patient during treatment.

Twenty-eight residents provided responses that also high-lighted that they felt it was important to involve the family in the assessment and treatment of adolescent EDs, but only under certain circumstances or in specific situations (6.3%). For instance, some respondents reported that the appropriateness of family involvement is dependent on the "age of [the]client," whether or not the "child lives with family," and the nature of the family relationships for example "if relationships are positive and supportive then can involve

family in treatment," and "unless extremely unhealthy family relations."

Discussion

As part of a larger study (Girz et al., 2014), the current study investigated medical residents' degree of endorsement and perception of the nature of family involvement in the assessment and treatment of adolescent ED. Expectations for future practice in assessment and treatment of ED were also examined. Overall, the majority of residents reported that they "mostly" agree with the involvement of the family in assessment and in treatment. This is consistent

with research by Williams and Leichner (2006) in which pediatric residents highly endorsed family therapy. Since ED is often characterized by denial, rationalization, minimization, or concealment of disordered behaviours from others (Lock & Le Grange, 2013), it is encouraging that many residents are willing to involve of family members in the treatment process as allies in leading patients on the path towards improved health.

These results must also be considered alongside the qualitative responses regarding the nature of family involvement described by residents. Specifically, with respect to the nature of family involvement perceived to be appropriate in the assessment/treatment process, many physicians lacked specificity in the nature of the involvement or recommended a more passive role for the family, such as providing collateral information for assessment, and monitoring the individual's behaviour. Although this type of involvement is useful for the client as well as the physician, the field of ED sees a much more active role for parents as critical partners for care and there is little debate related to this practice among ED professionals in North America. That said, the thrust for family-based care is relatively new - taking off in the last ten years or so - and therefore it is not surprising that these developments seem not to have found their way in the specialized medical curricula quite yet. As such, these findings point to the need for curriculum development and/or updates, in addition to more practical training. This need for training seems to be particularly relevant for residents in family medicine who scored lowest when endorsing the importance of family involvement in the assessment and treatment process and who are typically the gateway for specialized referrals in Canada. In the absence of access to specialized service, family physicians can assume responsibility for medical monitoring and care. Some parent groups have shared anecdotal reports suggesting that some families who were engaged in therapy with an FBT clinician received conflicting messages from family physicians and with respect to the appropriateness of family involvement specifically. This can create challenges throughout the treatment process, especially given that many youth with ego-syntonic ED are not always accepting of family involvement since their parents' role in meal support and the refeeding process creates less opportunity for the ED to thrive. It is also possible that when treatment progresses and adolescents' mood declines or behaviours escalate - features common during the refeeding process (Lock & Le Grange, 2013) – well-intentioned physicians may erroneously conclude that parental involvement is causing too much stress on the child, and therefore recommend that parents take a step back. Our results certainly support the value of additional training in that the more training residents in speciality areas have in ED assessment and treatment, the more likely they are to agree with involving the child or adolescent's parents in both domains. That said, it is promising that a subset of physicians did indicate a more active role for the family in treatment in terms of refeeding, regaining control of food, and meal support. These responses are in line with the principles of FBT (e.g., Le Grange & Eisler, 2009; Loeb & le Grange 2012) and evidence that ED-specific protocols are being translated into medical care in some cases.

Among residents interested in ED as part of their future practice, most planned to be involved in assessment and referral as well as medical management. It is encouraging that so many residents are interested in working in a field that many others avoid due to the challenging nature of the work. Interestingly, plans to be involved in the assessment and/or treatment of child and adolescent ED in future practice were not associated with scores on endorsement of family involvement in either domain. This suggests that expectation to practice doesn't necessarily correlate with endorsement of family involvement, thus potentially creating challenges in the coordination of care. As such, it would be beneficial to further understand the concerns of residents' regarding family involvement in order to support medical professionals in empowering parents to become valuable resources in the assessment and treatment processes.

In conclusion, best practice guidelines are clear on the need to involve families in the assessment and treatment of child and adolescent ED. It is promising that many medical residents endorse family involvement in assessment and treatment; however, in some cases, based on qualitative descriptions and assessment of knowledge (Girz et al., 2014), their understanding of what family involvement entails appears to be vague, incomplete and in some cases incongruent with best practice. Thorough training in evidence-based protocols is necessary for residents planning to engage in assessment, referral, and/or treatment in their future practice, and in particular future family physicians who are likely to be the first contact for children/adolescents with ED. As such, medical school curricula may benefit from a focus on best practice in assessment, including the specific ways parents can become involved in the process, as well as education regarding effective family-oriented treatment strategies for child/adolescent ED, including FBT. This will ensure that residents are adequately informed when making referrals, providing medical monitoring and supporting treatment and overall care.

Limitations of the current study include a relatively low response rate to the survey (13.8%), as well as the possibility that participants who completed the survey may not be representative of medical residents in the selected subspecialties of family medicine, pediatrics, and psychiatry. It is important to note, though, that response rates are lower in elite populations and when the survey instrument is long and anonymous (Asch, Jedrziewski, Christakis, 1997). Future studies should assess non-response bias to better assess the representativeness of our sample. That being said, it is possible that non-respondents are likely to have decreased

knowledge of and/or interest in ED perhaps furthering our conclusion that more training in this area is needed.

Acknowledgements / Conflicts of Interest

The authors have no financial relationships to disclose.

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