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Residents' and Fellows' Knowledge and Attitudes About Eating Disorders at an Academic Medical Center

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Abstract

Objective.—This study examined physician residents' and fellows' knowledge of eating disorders and their attitudes toward patients with eating disorders.

Methods.—Eighty physicians across disciplines completed a survey. The response rate for this survey across disciplines was 64.5%.

Results.—Participants demonstrated limited knowledge of eating disorders and reported minimal comfort levels treating patients with eating disorders. Psychiatry discipline ($p = 0.002$), eating disorder experience ($p = 0.010$), and having 4 eating disorder-continuing medical education credits ($p = 0.037$) predicted better knowledge of anorexia nervosa but not bulimia nervosa. Psychiatry residents ($p = 0.041$), and those who had treated at least one eating disorder patient ($p = 0.006$), reported significantly greater comfort treating patients with eating disorders.

Conclusion.—These results suggest that residents and fellows from this sample may benefit from training to increase awareness and confidence necessary to treat patients with eating disorders. Sufficient knowledge and comfort are critical since physicians are often the first health care provider to have contact with patients who have undiagnosed eating disorders.

Eating disorders are serious psychiatric disorders with extensive medical and psychiatric morbidities [1]. Primary care providers can play an essential role in recognizing these disorders at their earliest stage, such as including a screen for eating disorders at annual visits and sports physicals in standard care, particularly for pediatricians [1]. Although primary care providers have the greatest opportunity to diagnose and manage eating disorder care, they may lack the required knowledge to diagnose and comfort in managing eating disorder [2]. Poor understanding of eating disorder and discomfort treating patients with eating disorder represent major barriers in care for these patients [3], whose symptoms may not be recognized without proper understanding.

Early studies also suggest that patients with eating disorder are not well liked among medical and nursing staff [4], with clinicians demonstrating pessimistic beliefs about

Ethics declarations
Institutional review board approval was obtained prior to commencement of this study.

Disclosures
On behalf of all authors, the corresponding author states that there is no conflict of interest.

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outcomes [5]. Inexperienced physicians and therapists appear to demonstrate more negative attitudes than those with more eating disorder experience [3], with resident physicians portraying reactions of anger, helplessness, and frustration toward such patients [6]. Another study found that nearly a third of therapists (~40% psychiatrists) with limited eating disorder experience stated they preferred not to treat patients with eating disorders [3]. Nevertheless, research focusing on the knowledge and attitudes of physicians who do not specialize in eating disorder treatment is limited, outdated, and primarily conducted abroad [2, 3, 7]. With the growing number of patients with eating disorders [1] and the evolving cultural and psychiatric understanding of eating disorders [3], it is important to assess residents' and fellows' understanding of eating disorders as they may be the initial practitioner a patient visits. These physicians at the early stage in their careers can help build the foundation for positive attitude and knowledge for future physicians.

The current study assesses resident and fellow physicians' knowledge about and attitudes toward patients with eating disorders among five medical specialties. Because early detection by primary care providers is believed to be one of the most important factors for full recovery [1], the first aim is to describe the level of physician understanding of eating disorders and their attitudes toward patients with eating disorders. The second aim is to determine if knowledge and attitudes (including confidence managing patients with eating disorders) differ by specialty, continuing medication education (CME) lectures (e.g., eating disorder-related lectures or other CME), or eating disorder experience. We hypothesized that psychiatrists would have the greatest knowledge of and comfort in treating patients with eating disorders and also that CME would predict greater confidence in managing these patients across specialties.

Methods

Participants included 80 physician residents and fellows practicing at a large urban academic medical center who represented multiple disciplines (i.e., pediatrics, medicine/pediatrics, internal medicine, obstetricians and gynecologists (OBGYN), and psychiatry). Response rate was 64.5% for this survey. These specialties were identified at this academic medical center as those most likely to encounter patients with eating disorders in their initial evaluation and were the specialties most often studied in previous literature [3]. Residents and fellows were voluntarily recruited through department chairs and personnel and were asked to complete a brief questionnaire by pencil-and-paper or an online survey tool. Participants were given the opportunity to enter into a gift card raffle after completion of the survey. Institutional review board approval was obtained prior to commencement of this study.

The Physicians Attitudes and Knowledge Survey was designed to measure resident and fellow knowledge of and attitudes toward eating disorders and was adapted from a previous study conducted in England [2]. The attitude questions were derived from previous work on stigma and or modified from the eating disorder version of the Illness Perception Questionnaire [2]. Items (10 for anorexia nervosa and bulimia nervosa) were rated from 1 (strongly disagree) to 5 (strongly agree), including the degree to which they enjoyed treating patients with eating disorders, optimism toward treatment outcomes, and comfort in

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managing patients with eating disorders. The knowledge assessment constructed questions from academic literature and the national UK protocol for the management of eating disorders [2]. It assessed participants' knowledge of diagnostic criteria for anorexia nervosa and the physical complications of both anorexia nervosa and bulimia nervosa. Physicians were also asked about average duration of illness, prevalence, and effective forms of treatment for adults with eating disorders and adolescents with anorexia nervosa and bulimia nervosa. In regards to determining the answers for the treatment and prevalence rate portion of the survey a limited, unstructured review was conducted. The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, was used to determine the correct answers for the diagnostic criteria of anorexia nervosa and bulimia nervosa.

Data were analyzed using IBM SPSS 22 Statistics. Bivariate regression models were used to determine if medical field, CME lectures, and experience treating patients contributed to comfort level and understanding of patients with eating disorders.

Results

The majority of participants (81.0%, $n = 64$) had treated at least one patient with an identified eating disorder, but few (12.7%, $n = 10$) had treated more than five. Only about one third (34.1%, $n = 27$) of residents and fellows had received four or more hours of eating disorder-specific CME in the last 5 years. Perceptions of and attitudes toward patients with anorexia nervosa and bulimia nervosa did not significantly differ (p values > 0.05), and therefore results have been combined. The vast majority of physicians believed eating disorder symptoms to be uncommon (88.5%) and perceived eating disorders as causing major consequences (93.4%), including interpersonal difficulties (93.9%). Most believed eating disorders to be "severe and enduring" (70.0%) or chronic (81.0%), although and one third (32.0%) perceived treatment as "highly effective." Patients were perceived as "largely responsible for their condition" (73.8%), with only one quarter (25.3%) believing that patients could do much to control their symptoms. A minority (18.1%) perceived eating disorders as psychological rather than medical. Of those with experience working with eating disorders, 39.1% did not generally enjoy working with patients with eating disorders, while 13.8% reported generally enjoying working with this patient population. Only a minority (11.4%) felt comfortable managing patients with eating disorders.

Approximately half of resident and fellow physicians correctly identified physical symptoms associated with anorexia nervosa (correct 48.9%, false negative 9.7%, false positive 12.9%, unsure 28.3%) and bulimia nervosa (correct 59.5%, false negative 5.3%, unsure 35.2%). About half also correctly identified cognitive-behavior therapy (CBT) as the most effective treatment for adults with bulimia nervosa (53.9%, $n = 41$) [1]. While participants were given the correct option of "no effective treatment" for adults with anorexia nervosa, nearly half believed that CBT is the most effective treatment (48.7%, $n = 37$); other commonly endorsed treatments were family-based treatment (FBT) (14.5%, $n = 11$) and inpatient treatment (9.2%, $n = 7$). About one quarter correctly recognized FBT as the most effective treatment for adolescents with bulimia nervosa (27.6%, $n = 21$); CBT was more commonly endorsed (42.1%, $n = 32$) [8]. Two in five correctly identified FBT as the most effective treatment for

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adolescents with anorexia nervosa (42.1%, $n = 32$) [9]; other commonly endorsed treatments were CBT (27.6%, $n = 21$) and inpatient treatment (9.2%, $n = 7$).

In bivariate regressions, having treated at least one patient with an eating disorder ($F[1, 76] = 6.92$, $p = 0.010$) and having at least three CMEs ($F[1, 76] = 4.49$, $p = 0.037$) predicted greater knowledge about anorexia nervosa symptoms. In the multiple linear regression model including both variables, the overall model was statistically significant ($F[1, 76] = 5.23$, $p = 0.008$) and accounted for 12.4% of the variance in knowledge about anorexia nervosa symptoms. However, only eating disorder experience was significantly associated with knowledge about anorexia nervosa ($\beta = 0.26$, $p = 0.020$); CME was not ($\beta = 0.20$, $p = 0.073$). Eating disorder experience and CME did not significantly predict knowledge of bulimia nervosa symptoms (p values = 0.10), nor did they predict perceptions of the treatability of anorexia nervosa or bulimia nervosa (p values = 0.10).

With respect to comfort level in managing patients with eating disorders, residents who had treated at least one patient with an eating disorder ($\chi^2 = 7.66$, $p = 0.006$) reported greater comfort levels in treating eating disorders in bivariate logistic regression models. In the multinomial logistic regression model including both variables, the overall model was significant ($\chi^2 = 10.11$, $p = 0.006$). Again, only eating disorder experience was significantly associated with greater comfort managing patients with eating disorders ($B = 2.16$, $SE = 1.07$, $p = 0.044$); CME was not ($B = 0.80$, $SE = 0.51$, $p = 0.119$).

Discussion

This study sought to better understand resident and fellow physician trainee knowledge of and attitude toward eating disorders at a major American academic medical center. Overall, these results suggest that in this limited sample, physicians at this early stage in their career may lack basic knowledge and training in eating disorders, including diagnostic criteria, prevalence rates, and effective treatment for both anorexia nervosa and bulimia nervosa. While the vast majority of participants had treated at least one patient with an eating disorder, only a small minority felt comfortable managing such patients. Furthermore, two fifths of those surveyed generally reported not enjoying working with patients with eating disorders. Unfortunately, such attitudes may discourage patients with eating disorders from seeking further medical attention [1].

In line with a similar study, participants exhibited eating disorder knowledge gaps [2]. Participants with more experience working with patients who had eating disorders demonstrated significantly greater knowledge of eating disorder diagnostic criteria and complications for anorexia nervosa, consistent with a previous study of psychiatrists' knowledge and attitudes [7]. Residents and fellows with eating disorder patient experience also reported feeling more comfortable treating patients, which is reassuring as it suggests that, in this sample, continued interactions contribute to greater confidence levels. This is in contrast to a previous survey which found no significant relationship between knowledge gaps and attitudes [2]. Only about half of participants were able to identify effective psychotherapeutic treatments for anorexia nervosa and bulimia nervosa. One obvious explanation for knowledge gaps is the relative rarity of eating disorders seen in these

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physicians' practice [2]. While the majority of participants had treated at least one patient with an identified eating disorder, less than 15% had treated more than five patients and only one third had received more than four or more CMEs. In order to improve deficiencies in knowledge which could hopefully lead to earlier detection of eating disorders, more opportunities for physicians-in-training to identify eating disorder symptoms may be necessary.

Participants appeared to be familiar with CBT as an effective form of treatment but less so with FBT. This is not surprising because FBT is more specific for adolescents and its research support is relatively more recent [8, 9]. Physicians across specialties need not be comfortable in managing the treatment for these patients, but ideally they should be able to detecting early signs and provide appropriate referrals for effective treatment(s). Training requirements in primary care fields and OBGYN may be one way to improve physicians' comfort in diagnosing and referring patients with eating disorders, even if greater patient contact is not practically feasible.

This study's most significant limitation is its sample, due to small size, single institution sampling, and limited cross-discipline distribution, which greatly limits the generalizability of these results to physicians at large, although results followed similar studies conducted abroad. Additionally, this survey followed previous survey questions used for the same purpose [2], but it has not been validated. Future studies may adapt questions to focus on the knowledge that is most important for each specialty surveyed. Selection bias is a possible limitation because physicians voluntarily participated, and those with particularly positive or negative experiences with patients who have eating disorders may have been more likely to complete the survey. We were unable to examine other factors associated with knowledge and attitudes, such as years of experience, which may have impacted level of eating disorders exposure.

Future research on this topic should be conducted with a greater sample size across multiple institutions in order to determine if trends are impacted by location of training and to allow for comparisons across sub-specialties. Futures studies could be broadened to assess knowledge on other eating disorders such as binge eating disorder. Surveying understanding of lab values that indicate malnutrition, including but not limited to iron and electrolytes, as well as supplemental medication options available for patients such as the antidepressant fluoxetine [10] could provide a more comprehensive view of where knowledge gaps exist and indicate more concrete teaching targets. Finally, future investigators could compare both post-graduate physician faculty and medical students with resident and fellow trainees to better understand the development of knowledge and comfort levels.

This limited sample suggests a need for improved knowledge and comfort regarding the diagnosis, treatment, and attitudes toward patients with eating disorders at this institution. While abundant diagnostic and treatment research is available, this needs to be delivered to physicians who may not regularly encounter such patients in a way that is accessible, feasible, and relevant. If residents and fellows actively express feelings of dislike while treating such patients, barriers toward improving care for this patient population will remain high. Great efforts have been made in expanding treatment methods and awareness of eating

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disorders [1]. This progress now must be incorporated into physician training so that patients suffering from this disorder can receive effective care, whether within or outside of the office of first-line treatment providers.

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References

1. Rosen DS. Identification and management of eating disorders in children and adolescents. Pediatrics. 2010;126:1240–53. [PubMed: 21115584]
2. Currin L, Waller G, Schmidt U. Primary care physicians' knowledge of and attitudes toward the eating disorders: do they affect clinical actions? Int J Eat Disord. 2009;42:453–8. [PubMed: 19115367]
3. Thompson-Brenner H, Satir DA, Franko DL, Herzog DB. Clinician reactions to patients with eating disorders: a review of the literature. Psychiatr Serv. 2012;63:73–8. [PubMed: 22227763]
4. Fleming J, Szmukler GI. Attitudes of medical professionals towards patients with eating disorders. Aust N Z J Psychiatry. 1992;26:436–43. [PubMed: 1417629]
5. Hay PJ, de Angelis C, Millar H, Mond J. Bulimia nervosa mental health literacy of general practitioners. Prim Care Community Psychiatry. 2005;10:103–8.
6. Brotman AW, Stern TA, Herzog DB. Emotional reactions of house officers to patients with anorexia nervosa, diabetes, and obesity. Int J Eat Disord. 1984;3:71–7.
7. Jones WR, Saeidi S, Morgan JF. Knowledge and attitudes of psychiatrists towards eating disorders. Eur Eat Disord Rev. 2013;21:84–8. [PubMed: 23350077]
8. Le Grange D, Crosby RD, Rathouz PJ, Leventhal BL. A randomized controlled comparison of family-based treatment and supportive psychotherapy for adolescent bulimia nervosa. Arch Gen Psychiatry. 2007;64:1049–56. [PubMed: 17768270]
9. Lock J, Le Grange D, Agras WS, Moye A, Bryson SW, Jo B. Randomized clinical trial comparing family-based treatment with adolescent-focused individual therapy for adolescents with anorexia nervosa. Arch Gen Psychiatry. 2010;67:1025–32. [PubMed: 20921118]
10. Gorla K, Mathews M. Pharmacological treatment of eating disorders. Psychiatry Edgmont. 2005;2:43–8.