

# A Narrative Review of Early Intervention for Eating Disorders: Barriers and Facilitators

Regan Mills<sup>1</sup>, Lucy Hyam<sup>1</sup>, Ulrike Schmidt<sup>1,2</sup>

<sup>1</sup>Department of Psychological Medicine, Centre for Research in Eating and Weight Disorders (CREW), King's College London, Institute of Psychiatry, Psychology and Neuroscience, London, UK; <sup>2</sup>Eating Disorders Outpatient Service, South London and Maudsley NHS Foundation Trust, London, UK

Correspondence: Regan Mills, Department of Psychological Medicine, Centre for Research in Eating and Weight Disorders (CREW), King's College London, Institute of Psychiatry, Psychology and Neuroscience, London, UK, Email [regan.mills@kcl.ac.uk](mailto:regan.mills@kcl.ac.uk)

**Abstract:** Eating disorders (EDs) are serious psychiatric illnesses that typically develop during adolescence and emerging adulthood. Early intervention is important for improved outcomes for young people with EDs, yet help-seeking is low and individuals often have a significantly protracted start to treatment, suggesting that early intervention is not well established in the ED field. Previous reviews on facilitators and barriers to early intervention for EDs largely cover perceived barriers related to patient variables and perspectives, whereas clinician-, service-, and healthcare system-related facilitators and barriers are less frequently reviewed. The aim of this review is to synthesize the literature on barriers to and facilitators of early intervention for EDs, regarding patient-, clinician-, service-, and healthcare system-related factors. A narrative review was conducted by searching for relevant peer-reviewed, English-language articles published up until July 2023 on PubMed and PsychINFO. The search was conducted in two steps. First, key search terms were used to identify existing reviews and meta-analyses on facilitators and barriers to early intervention for EDs. Then, additional search terms were added to search for primary and secondary research on patient/family, clinician, service, and healthcare system-related barriers and facilitators. The identified literature shows that, after overcoming intrinsic, motivational barriers (such as self-stigma, denial, and ambivalence), help-seeking individuals may be met with long service waiting lists and limited treatment options. Despite these barriers, there is ongoing research into early intervention in practice, which aims to reach underserved populations and facilitate early intervention despite high service demands and shortages of trained healthcare professionals. Funding for ED research and services has historically been low, and there is also a research-practice gap. This highlights the need for increased consideration of, and funding for early intervention for EDs, to remove barriers as well as facilitate discussions around how to make early intervention programs scalable and sustainable.

**Keywords:** anorexia nervosa, bulimia nervosa, help-seeking, treatment seeking, mental health

## Introduction

Eating disorders (EDs) are serious and complex psychiatric illnesses that develop most often during adolescence or emerging adulthood, ie, the mid-teens to mid-twenties.<sup>1</sup> EDs are associated with multiple physical health complications and impaired psychosocial functioning and may lead to significant disability and premature mortality, particularly in those with a more longstanding form of illness.<sup>2,3</sup> Up to 18.6% of women and 6.5% of men are affected by an ED during their lifetime. Only approximately 50% of people with an ED reach full recovery following treatment.<sup>4</sup> Of the remaining individuals, 20–30% will stay chronically ill.<sup>5</sup>

In addition to the significant impact on an individual's health, EDs result in a substantial societal disease burden (comparable to disease burden estimates for anxiety, depression, and obesity).<sup>6</sup> For example, the total socioeconomic impact of EDs was valued at nearly \$400 billion for the US and \$84 billion for South Australia in 2018.<sup>7,8</sup> Evidence suggests, however, that earlier diagnosis and intervention may reduce the economic burden associated with EDs. A Swedish case-control study found that individuals with binge eating disorder (BED) had considerably higher healthcare costs in the years leading up to a diagnosis, with costs decreasing in the years following.<sup>9</sup> Cost-offset analyses from a German paper also predicted that, for every €1 invested in treatment for anorexia nervosa (AN) and bulimia

nervosa (BN), €2–4 could be saved.<sup>10</sup> From the viewpoints of both the individual and the public provider, boosting early and timely access to ED intervention seems a matter of urgency.

Early intervention has been defined as “the detection of illness at the earliest possible point during the course of a diagnosable disorder, followed by the initiation of stage-specific, tailored or targeted evidence-based treatment, which is adapted and sustained for as long as necessary and effective.”<sup>11</sup> Although there is no agreed critical window for early intervention, there is some evidence to suggest that treatment within the first 3 years may offer a higher chance of recovery from an ED.<sup>12,13</sup> Beyond this period, treatment response may be more muted, given that a longer duration of illness allows more time for maladaptive behaviors and thought patterns to become engrained and habitual.<sup>14</sup> Despite evidence for (and expert consensus on) the improved outcomes and cost-effectiveness of early intervention for EDs, its practice is not currently well established in the ED field.<sup>15</sup> A meta-analysis found that internationally, time between clinical onset of an ED and first specialist, evidence-based treatment (the duration of untreated ED [DUED])<sup>16</sup> is currently 2.5 years for AN, increasing to 4.4 years for BN, up to 6 years for BED.<sup>12</sup> This protracted period between onset and treatment indicates the presence of significant barriers to starting treatment early, which warrants investigation.

Early intervention focuses on emerging disease. It is distinct from but on a continuum with prevention. The latter targets modifiable risk and/or protective factors in individuals who have not yet met the threshold for diagnosis. Prevention programs may be universal (covering the whole population), selective (designed for a high-risk population subgroup) or targeted (designed for individuals with early signs of the disorder in question).<sup>17</sup> (For review see Stice et al 2019).<sup>18</sup>

A recent review examined the effectiveness of ED early intervention programs (35 studies) and prevention programs (96 studies), demonstrating a smaller research focus on early intervention.<sup>19</sup> Of the early intervention programs identified in the review, the largest body of evidence belonged to the First Episode Rapid Early Intervention for Eating Disorders (FREED) model. FREED is an example of how early intervention programs can be scaled successfully, to a national level, when given appropriate funding and support by public providers.<sup>20</sup> The FREED service model tailors treatment for young people (between 16 and 25 years) with DUED < 3 years.<sup>21</sup> The adoption of FREED in ED services around England has led to significantly improved clinical outcomes, increased treatment uptake, and reduced treatment waiting times and thereby DUED.<sup>16,22</sup> Given its promising evidence, FREED can currently be considered as the leading model of early intervention for EDs.

In addition to developing and evaluating the acceptability and feasibility of early intervention programs, the specific barriers and facilitators to their effective and sustained implementation must be investigated, as has been done in early intervention for psychosis.<sup>23</sup> In addition to healthcare system-related barriers (eg, lack of funding for services and innovation/research), barriers to early intervention can also exist at the level of patients/families, clinicians, and services. Examples include lack of problem-recognition or motivation to seek help, sparse practitioner expertise in EDs in primary care, and long service waiting lists.

While there is a growing body of literature that examines barriers and (to a lesser extent) facilitators to early intervention for EDs, there is a need for an up-to-date narrative review that synthesizes and discusses these factors, to provide a holistic overview of early intervention research and current clinical practice.

## Aims of Current Review

The current review summarizes the existing literature on barriers and facilitators to early intervention for EDs, in relation to patient/family, clinician, service, and healthcare system-related categories. The aim of this paper is to present a broad perspective on early intervention for EDs, focusing on recent and major findings as well as examples of current clinical practice, in order to identify knowledge gaps and direct future research on early intervention.

As some factors sit in multiple categories, this paper will discuss any such factors wherever they first seem relevant. These factors will then be briefly mentioned again in the following sections, where they also seem relevant.

## Method

To deepen our understanding of early intervention for EDs, a narrative approach was used to synthesize, interpret, and critique the findings of studies that examined barriers and facilitators to early intervention for EDs. A narrative approach was chosen to complement the recent systematic reviews in this area. Whilst systematic reviews are conducted to

summarize data and address specific, narrowly focused questions, narrative reviews can extend understanding and provide insight into a field of research.<sup>24</sup>

Firstly, an electronic search was conducted using PubMed and PsycInfo, for peer-reviewed, English-language articles published up until July 2023. Preliminary keyword searches included combinations of “eating disorder”, “bulimia”, “anorexia”, “binge-eating disorder”, “early intervention”, “barrier”, and “facilitator”.

Using keywords from articles identified in the preliminary search, additional combined keyword searches were performed for each early intervention category, in order to identify barriers, facilitators and ongoing research into (or examples of) early intervention in practice. A list of the keywords is shown in Table 1. To identify literature not found in the main searches, reference lists of key reviews and included articles were manually screened. A manual search of Google Scholar was also conducted.

Regarding the analysis and presentation of outcomes, a description of systematic reviews and meta-analyses on barriers and facilitators to early intervention for EDs (identified in the preliminary search) is first provided below. Then, results from the included studies are discussed in patient/family, clinician, service, and system-related sections, in relation to research or examples of early intervention in practice that aim to remove barriers or implement facilitating factors.

The main findings from included studies (identified in the additional, combined keyword searches) are extrapolated and are summarized in Figure 1.

## Results

### Evidence on Barriers and Facilitators to Early Intervention for EDs from Systematic Reviews and Meta-Analyses

We identified four systematic reviews, one meta-analysis, and one scoping review that examine barriers and facilitators to early intervention for EDs. Factors identified in these studies have typically been grouped into broad themes: perceived barriers, individual characteristics, and demographic variables.<sup>25–30</sup> The most frequently identified factors, cited in all studies, were stigma and shame, limited awareness of or denial of illness severity, and the perceived inability of others to provide help. Interestingly, of the 24 barriers identified in the meta-analysis, only “denial/failure to perceive ED severity” and “perceived inability of others to provide help” were able to significantly (and negatively) predict help-seeking behavior.<sup>27</sup>

In relation to individual characteristics, Regan et al’s review found that weight-related variables (eg, current body mass index; BMI, history of obesity) were not associated with treatment-seeking.<sup>26</sup> However, several other ED-related variables appear to be related to increased likelihood of treatment seeking, including a younger age of symptom onset, a longer DUED, higher levels of ED-related distress and greater physical health impairment.<sup>26</sup> Notably though, in the only meta-analysis, Radunz et al did not identify any individual characteristics, including ED symptoms, that were significantly associated with help-seeking behaviour.<sup>27</sup> The discrepancy between Regan et al’s and Radunz et al’s

**Table 1** Keywords for Preliminary Search Strategy and Patient/Family, Clinician, Service, and Healthcare System-Related Factors

Search Query	Keywords
Preliminary search	Eating disorder, bulimia nervosa, anorexia nervosa, binge-eating disorder, early intervention, barrier, facilitator
Patient/family-related factors	Patient, service user, family, parent, help-seeking, treatment-seeking, engagement, motivation, denial, stigma, shame
Clinician-related factors	Clinician, primary care, general practitioner, healthcare professional, knowledge, attitude, skills, practice, education, training, screening, diagnosis
Service-related factors	Healthcare service, waitlist, waiting time, (non)-attendance, drop-out, accessibility, assessment, appointment, contact, outreach
System-related factors	Research, funding, economics, cost-benefit, mental health, healthcare policy, service transformation, reform, initiative

**Notes:** Early intervention-related keywords were searched in combination with keywords from the preliminary search and, where applicable, utilised wildcard (\*) to capture all variations of the search term.

Facilitators and Barriers to Early Intervention for Eating Disorders			
Patient	Clinician	Service	Healthcare system
Facilitators			
<ul style="list-style-type: none"> <li>Parent/carer support and involvement<sup>19,27,61</sup></li> <li>To facilitate early intervention, offer brief interventions at point of referral for parents/carers<sup>64,65</sup></li> <li>Digital early interventions for young people: ESS-KIMO<sup>59</sup>, FREED-M (<i>in progress</i>)<sup>63</sup></li> </ul>	<ul style="list-style-type: none"> <li>Healthcare professionals who are empathetic, informative, and understanding about help-seeking<sup>69,70</sup></li> </ul>	<ul style="list-style-type: none"> <li>Starting treatment within 4 weeks of referral<sup>98</sup></li> <li>Online interventions<sup>59</sup></li> <li>Drop-in sessions/programmes<sup>105-107</sup></li> </ul>	<ul style="list-style-type: none"> <li>Easier, direct access to specialist services<sup>108</sup></li> <li>Increased research funding and development of early intervention initiatives<sup>122</sup></li> </ul>
Barriers			
<ul style="list-style-type: none"> <li>Social and self-stigma: cultural<sup>35</sup>, healthcare<sup>40,41</sup>, gender<sup>42</sup>, socioeconomic status<sup>43</sup></li> <li>Denial: Limited insight<sup>53,54</sup>, down-playing, or more conscious denial of disorder (may be different for different eating disorder diagnoses<sup>55,56,57</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>Low training<sup>74,75</sup> and confidence<sup>76</sup> in primary care staff, low recognition of non-stereotypical or eating disorders with comorbidity<sup>80,81</sup></li> <li>Can result in missed detection of eating disorders<sup>80</sup> or prioritisation of other clinical problems</li> <li>Limited self-referral routes<sup>88</sup></li> </ul>	<ul style="list-style-type: none"> <li>Long wait times for treatment: May drive high non-attendance rates</li> <li>Lack of choice in treatment<sup>104</sup></li> <li>Diagnostic gatekeeping: Creates inequality in who can access care</li> </ul>	<ul style="list-style-type: none"> <li>Irregular access to eating disorder services, for example, separation of child and adolescent and adult eating disorder services across UK<sup>112</sup></li> <li>Staffing gaps</li> <li>Historically low funding and few grant applications for ED research</li> </ul>
Potential solutions to barriers			
<ul style="list-style-type: none"> <li>Stigma issues may be addressed using contact interventions<sup>48</sup>, biological explanations<sup>49</sup> and education-based interventions<sup>46,47</sup></li> </ul>	<ul style="list-style-type: none"> <li>Using self-referral screening tools may help counteract lack of self-referral pathways and missed diagnoses due to lack of staff training/awareness<sup>97,99</sup></li> </ul>	<ul style="list-style-type: none"> <li>Single session interventions/assessments<sup>102</sup>, active opt-in initiatives<sup>100,101</sup>, and active engagement (e.g., via text messages<sup>99</sup>) may be effective in reducing non-attendance and waiting times</li> <li>Abbreviated treatments such as guided-self-help may help services deal with long waiting lists in adult services<sup>103</sup></li> </ul>	<ul style="list-style-type: none"> <li>Task-sharing and delivery of low intensity interventions (e.g., guided self-help<sup>117</sup>, train-the-trainer<sup>118</sup>) may be feasible and effective to manage impact of staffing gaps on service</li> <li>Recent funding allocation and projects are underway (STRIPED<sup>123</sup>, EDIFY<sup>124</sup>)</li> </ul>

**Figure 1** Barriers and facilitators to early intervention for eating disorders, in relation to patient/family, clinician, service, and healthcare system-related factors.

findings may be due to the recency of Radunz et al's paper (published in 2023 versus 2017), which therefore had the benefit of an increased study pool. For example, Regan et al identified one study examining the relationship between DUED and treatment seeking, whereas Radunz et al identified five. Having a higher number of studies in a review may "dilute" effect sizes, due to the inclusion of more studies with non-significant results.

In terms of demographic variables, Regan et al found that age, education level, and ethnicity were the only demographic variables with a degree of predictive utility for treatment seeking (with ethnic minority groups and younger, less educated individuals being less likely to seek help).<sup>26</sup> However, similar to the individual characteristics, Radunz et al's meta-analysis concluded that these associations were non-significant.<sup>27</sup> Speculatively, this may be due to a lack of research involving diverse population samples, with study participants tending to be mainly young (student-age), white and female. Studies including underserved samples (eg, ethnic minority groups and men) were able to identify additional, unique barriers to help seeking in these populations. Examples include language and cultural barriers, stereotypes held in the healthcare system, and a lack of recognition of men's eating problems (suggesting a potential interaction between relevant socio-demographic factors and the responses of healthcare professionals to treatment seekers). Consequently, both men and ethnic minority groups were reported as less likely to seek or receive help for an ED, compared to women and non-ethnic minority groups.<sup>28,29</sup>

Four of the six reviews identified here also discussed facilitators of early intervention for EDs.<sup>25,26,29,30</sup> A few key, positive themes emerged, including a desire to recover, and receiving support and encouragement from friends and family. Interestingly, some factors were reported as both barriers and facilitators to help seeking. Experiencing a significant life change as an emerging adult (eg, starting university) or having comorbid mental health problems (eg depression or anxiety) led some individuals to avoid starting treatment, while others become motivated to seek help.<sup>25,29</sup>

Overall, the reviews summarized here present a comprehensive overview of a range of mainly patient-related sociodemographic and individual barriers to early intervention for EDs.

As these reviews focus mainly on the views and characteristics of individuals with EDs or ED symptoms, these reviews therefore identify perceived barriers and facilitators to early intervention or barriers and facilitators to help-seeking specifically (ie, patient-related factors).<sup>25–30</sup> Additional factors, such as certain types of clinician-, service- and system-related factors, are thus not captured by existing reviews on early intervention. This presents a significant gap in early intervention literature, which the following sections will aim to address.

## Patient- and Family-Related Factors

International data suggest that only around 20% of individuals with an ED attempt to seek help for their illness.<sup>31</sup> The reasons for this are likely to be complex. According to Ali et al's and Radunz et al's reviews, the most significant patient-related barriers to early help-seeking, detection and intervention appear to be intrinsic and/or motivational, such as self-stigma, denial and guilt.<sup>25,27</sup> This is particularly troublesome, given that low motivation for change has been linked to greater body dissatisfaction and poorer treatment outcomes in both adolescents and adults (in relation to ED behaviors and cognitive/affective measures of pathology).<sup>32,33</sup>

Stigmatizing attitudes towards individuals with an ED are widespread among community members, with EDs being viewed more negatively than other mental health disorders and weight-related conditions, such as depression, schizophrenia and obesity.<sup>34–36</sup> Individuals with an ED report extensive experiences of stigmatization in varied settings, including familial settings, healthcare settings, and society in general.<sup>37</sup> Ethnic minority groups are also disproportionately deterred from help-seeking by fear of stigmatization.<sup>33</sup> Using an ethnically diverse sample, one study found that 59% of respondents had a negative experience of treatment-seeking for an ED, due to several culturally based barriers.<sup>33</sup> These included a fear of “shaming or disappointing” their family, having their symptoms viewed as a “weakness”, as well as having their concerns “dismissed or misinterpreted” by family members and clinicians.

Common public misperceptions of AN include the belief that the individual is using the ED to seek attention, is “in control” of their illness and is experiencing ED due to vanity/narcissistic character traits.<sup>38</sup> For individuals with BED, stigmatizing views include the belief that the individual is “lazy” and “weak”, is personally responsible for their ED and is experiencing the illness due to a lack of self-discipline.<sup>39</sup> Worryingly, these negative attitudes are also held (and potentially perpetuated) by healthcare professionals. Two studies showed that a sample of nurses and nursing students, who had worked with people with EDs, viewed these ill individuals as “unreliable” and “deceitful” due to their poor treatment adherence and high relapse rates.<sup>40,41</sup>

Internalizing stigma from the public and healthcare workers often leads to self-stigmatization. Notably, underserved populations appear more susceptible to self-stigmatization. Men with EDs, for example, frequently report feeling like “less of a man”, while those from a lower socioeconomic class report feeling like their ED are less “socially acceptable” than those from a higher socioeconomic class.<sup>42,43</sup> Self-stigmatization has been associated with social withdrawal, alienation, reduced rates of help seeking, and increased symptom severity, and can therefore be considered a barrier to early help-seeking and intervention.<sup>44</sup>

Varied approaches have been employed to reduce or remove stigma as a barrier to treatment seeking. Three strategies are typically used to reduce ED stigmatization: education-based interventions (eg, psychoeducation), biological illness models, and contact interventions. Education-based interventions aim to improve mental health literacy by teaching patients and the public about the causes, symptoms, treatments, and help-seeking strategies for EDs. By increasing public awareness and understanding, education-based interventions may correct misconceptions and help those with an ED to seek support (and consequently better manage their illness).<sup>45</sup> In the FREED model, for example, psychoeducation is used to emphasize the biological malleability of ED-related changes to patients early on in the treatment pathway, in order to facilitate early change. Examples include psychoeducation on bone health and osteoporosis, as well as brain plasticity, nutrition and appetite regulation.<sup>46,47</sup> Contact interventions, in contrast, involve meeting and/or interacting with people with an ED. These interventions are thought to facilitate perspective-taking, empathy, and encourage the public to listen to personal narratives (which can be filmed or written).<sup>48</sup> Finally, biological illness models focus on the idea that EDs are primarily caused by biological/genetic factors, therefore shifting blame and personal responsibility away from the individual.<sup>49</sup> However, whether biological explanations also contribute to the idea that the illness is unchangeable has



been raised as a potential concern. This “biological essentialism” may reduce individual agency, leading to the belief that one is unlikely to recover from an ED.<sup>50</sup>

Although direct comparisons of these interventions are not available, a recent meta-analysis did conclude that biological explanations, as well as combined education and contact interventions, were effective at reducing stigma compared to “no intervention” control groups.<sup>51</sup> Whether such interventions facilitate help-seeking and therefore remove stigma as a barrier to early intervention remains unknown. As these studies were conducted primarily in females and students, future work should also be done to assess whether these findings are generalizable across different populations.

In addition to stigma, another key patient-related barrier to early intervention is denial or down-playing of illness severity. This can be thought of as a multi-dimensional construct, ranging from a lack of insight into ED symptoms, to a minimization of symptoms or to a more conscious refusal to disclose ED-related thoughts and behaviors.<sup>52</sup> Limited insight is a common characteristic of some EDs, where individuals fail to recognize the presence or seriousness of their disorder.<sup>53</sup> This may be reinforced by social commentary and societal views more broadly, with (initial) weight-loss frequently being perceived as desirable, admirable and a positive demonstration of will-power.<sup>54</sup> Having poor insight poses particular challenges for early intervention, impeding the crucial first step of seeking help, as individuals may lack the motivation to change or have conflicting feelings about doing so.<sup>55</sup>

Down-playing or denial of illness severity can manifest differently depending on the specific diagnosis. For those who predominantly restrict food intake (eg, with AN), denial of an ED may stem from a desire to avoid intervention, as the individual may view the disorder as essential to their sense of self (ie, ego-syntonic).<sup>56</sup> In such cases, the key features of ED are often valued and seen as functional, providing a coping mechanism, focus, or sense of control and stability.<sup>55</sup> In contrast, for those who engage in loss-of-control over-eating (eg, with BN), denial may be motivated by feelings of shame and guilt, and the belief that their ED reflects a lack of willpower and self-control.<sup>57</sup> Regardless of specific diagnosis, denial of the presence of an ED may additionally stem from a general, over-arching fear of stigmatization, and wanting to avoid being labeled as having a mental illness.

Understanding the different causes of ED sufferers’ limited problem recognition, down-playing or outright denial of the illness is crucial to facilitating patient motivation and engagement with early intervention, as well as allowing the development of individually tailored treatment plans.

Within the FREED model, for example, specific strategies are incorporated to improve patient motivation and engagement at each stage of early intervention. After referral, each patient receives a 48-hr call to reduce anxiety and promote active engagement with the service. Access to developmentally appropriate resources is also given, such as information on the role of social media in maintaining ED symptoms, information on emerging adulthood and advice on how to prepare for university.<sup>46</sup> Throughout the treatment pathway, a motivational style of interaction between patients and clinicians is encouraged. Individuals with AN typically receive treatment using the Maudsley Model of Anorexia Nervosa Treatment, which is currently the only evidence-based therapy that systematically incorporates a motivational therapeutic style and tries to address valued (ego-syntonic) aspects of AN.<sup>58</sup> Demonstrating the effectiveness of this motivational approach in increasing patient engagement, Brown et al reported a significantly higher treatment uptake for patients going through the FREED pathway, compared to a treatment-as-usual group (100% versus 73%, respectively).<sup>46</sup>

Given that the median age of ED onset is approximately 18 years, particular attention should be paid to the patient-related barriers and facilitators that are unique to adolescents and emerging adults.<sup>1</sup> Digital interventions, for example, cater particularly well to the needs of young people with emerging EDs, as they allow for greater privacy and anonymity, as well as ease of access (ie, day and night). Hotzel et al, for example, developed an individualized online intervention (“ESS-KIMO”), which involved six weekly sessions based on motivational enhancement therapy.<sup>59</sup> Compared to wait list controls, participants who completed the ESS-KIMO intervention had significantly higher motivation to change and increased self-esteem. Novel approaches, involving mobile apps, are also currently being trialed. Given the growing recognition of the utility of smartphones in reaching young people, the UK-based FREED team is piloting a FREED-Mobile (FREED-M) app. To increase motivation to change and promote treatment seeking, FREED-M shares downloadable resources, engaging psychoeducational animations and personalized feedback on ED symptoms.<sup>60</sup>

Another key facilitator to early intervention for young people is receiving support from parents and carers.<sup>19,27</sup> Parents are well-situated for early identification of an ED and can initiate treatment seeking when the young person is

unlikely (or unwilling) to doing so, due to low motivation to change or lack of awareness. The benefits of parental involvement in early intervention were highlighted in a recent qualitative study, which examined adolescent and caregiver views on early detection and responses to EDs.<sup>61</sup> The authors found that parents were often the first to notice and confront emerging EDs symptoms, by seeking out professional help and setting boundaries around disordered eating behaviors (eg, by encouraging healthy eating habits).

However, the early phases of an ED are often subtle and symptoms can be misconstrued as temporary or part of normative development (eg, initial weight loss), and this can prove a barrier to early intervention. The most visible symptoms for parents to identify have consistently been reported as physical and behavioral changes typically associated with AN, such as extreme weight loss, changes in exercise and eating behaviors.<sup>61</sup> Research has shown that parents struggle to identify emerging symptoms of BN, leading to a delay in parental recognition of the illness during which ED can become more severe.<sup>62,63</sup>

To increase the likelihood of early intervention, parents may need greater support for swift and compassionate responding, as well as access to useful, accurate resources on the typical signs and symptoms of an emerging ED.<sup>61</sup> Promising results from two studies by Nicholls et al showed the effectiveness of a brief parenting group intervention. Delivered at the point of referral, the six session parent group significantly increased the parents' knowledge, confidence, skills and understanding of their child's ED.<sup>64</sup> Importantly, this was reflected in improved ED psychopathology and weight gain for children, which was maintained at the six-month program follow-up.<sup>65</sup> The success of this intervention, however, was likely dependent on the parents' willingness to engage with the program. A study by Jacobi et al assessed the effects of a 6-week, online family based intervention called Parents Act Now, which was designed to educate parents of girls deemed at high risk of developing AN.<sup>66</sup> For intervention participants, at a 12-month follow-up, the girls displayed a significantly higher expected body weight percentage compared to an assessment-only control group. However, overall parental engagement and completion rates were low, with only 16% of contacted parents agreeing to participate in the intervention. The difference between Nicholls et al's and Jacobi et al's results therefore suggests that these parent-directed interventions may only be successful with more motivated parents or parents who are more willing to acknowledge the perceived risk of their daughter developing an ED. Similar results are found in two recent guided self-help studies, by Wade et al and Lock et al, targeted at parents with children diagnosed with AN. While both studies showed significant improvements in the children's ED-related psychopathology post-intervention, only 13% of parents expressed interest in Wade et al's study, while 21% of participants dropped out during treatment in Lock et al's study.<sup>67,68</sup> Again, these results support the notion that parent-based interventions may be useful for early intervention for EDs, but only if there are strategies developed to improve parental recruitment and retention.

Considering the diverse range of intrinsic and extrinsic patient-related barriers to early intervention, equally diverse strategies, such as these, are therefore needed to remove these barriers to problem-recognition, help-seeking and timely treatment at the earliest possible point.

## Clinician-Related Factors

Several ED clinician traits have been identified as facilitators of help-seeking and early intervention. In a qualitative evaluation of the FREED early intervention service, patients valued clinicians who were highly knowledgeable and informative about EDs, which led them to feel safe and understood.<sup>69</sup> Additionally, clinicians being concerned and expressing a sense of urgency in early appointments enhanced motivation to change.<sup>70</sup>

In most European countries, however, access to specialist ED assessment and treatment is preceded by contact with a primary healthcare service/professional.<sup>15</sup> A recent multicenter study across seven European countries showed that most patients (92%) with an ED do not access specialist ED care directly, but rather through primary access points, like a general practitioner (GP). In this study, around 24.7% of the patients recruited were referred into treatment by GPs. For all patients, they saw an average of two healthcare professionals before being referred into specialist ED care. This demonstrates the important role that non-mental health (or non-ED specific) professionals play in the early detection and management of EDs and their role in referring patients to specialist care in Europe.<sup>71</sup> Primary healthcare professionals are also very well placed to challenge inappropriate perceptions of an ED.<sup>72</sup> Inquiry about mental health by general practitioners has been associated with higher treatment rates for EDs.<sup>73</sup> Healthcare professionals who are empathetic,

informative, and understanding can facilitate a positive help-seeking experience for those reaching out for help for the first time. In contrast, a lack of empathy and rapport characterize negative help-seeking experiences.<sup>72</sup>

Unfortunately, research has shown that medical professionals receive limited clinical training on EDs, leaving them ill-equipped to assess and manage patients with these conditions. A report from the UK by Ayton et al found that medical students on average attend <2 hours of ED training, with opportunities for clinical ED placements being offered to <1% of students.<sup>74</sup> Assessments of students' ED knowledge also appear to be limited. Half of UK medical schools, for example, did not include questions on EDs in final undergraduate exams in 2017.<sup>75</sup> Given these shortcomings in training and assessment on EDs, it is perhaps unsurprising that healthcare professionals report a lack of confidence in managing these disorders. In a US study, 78% of frontline medical providers (including general practice physicians and nurse practitioners) reported feeling unsure of how to treat EDs and 92% of respondents believed that they had missed an ED diagnosis.<sup>74</sup> This lack of confidence and knowledge on EDs, felt by medical professionals, is reflected in survey answers from individuals with lived experience. In a survey by the UK eating disorder charity Beat, 67% of respondents with lived experience of an ED felt that opportunities for early intervention for their ED were missed by their GPs and 92% also felt that their GP would benefit from more ED-specific training.<sup>75</sup>

The reasons for missed ED diagnoses and delays in referring to specialist treatment are complex. The first of these, already alluded to, is limited training. The second is due to EDs presenting with a high level of comorbidity. A recent rapid review demonstrated that individuals with an ED often present with anxiety disorders (up to 62%), mood disorders (up to 54%) or substance use and post-traumatic stress disorders (around 27%).<sup>76</sup> Not only can these co-morbidities result in increased medical instability but their presence may affect the identification of the ED or take clinical priority.<sup>77</sup> EDs other than classical AN presentations (eg, atypical AN, avoidant restrictive food intake disorder; ARFID, other specified feeding or eating disorder; OSFED) may not be picked up readily by busy primary care professionals, as they are less visible. In one study, individuals presenting with EDs and a premorbid history of obesity took 10 months longer to be diagnosed than those without such a history.<sup>78</sup> As a consequence, these individuals may ultimately present with more severe or more entrenched ED pathology. Finally, healthcare professionals may be as susceptible as the rest of society to the "SWAG" ED stereotype (skinny, white, affluent girls) and therefore find it harder to pick up EDs in those who do not present in this way. A recent rapid review suggested that those with a high BMI, males, transgender and gender diverse people, and those from an ethnic minority background are less likely to be flagged for an ED by a medical professional.<sup>79</sup> This is concerning, considering that being overlooked by a medical professional may perpetuate self-stigma in those seeking help (as mentioned in the previous section).<sup>80</sup>

To bypass gate keeping via primary care, digital screening tools can be used for self-referral to specialist services. Frequently used screening tools include the SCOFF questionnaire, Eating Disorder Examination-Questionnaire, Eating Attitudes Test (EAT-26), and the Eating Disorder Diagnostic Scale, although novel instruments are also being developed specifically for online use.<sup>81–84</sup> The InsideOut Institute-Screener (IOI-S) is a recent example, designed to streamline the referral process for high-risk individuals with early-stage EDs. A study by Bryant et al demonstrated the excellent psychometric validity of IOI-S, with 1346 participants accessing the online tool, resulting in reliable and accurate detection of ED risk and emerging symptomology in the user group.<sup>85</sup>

Although self-referral to specialist ED services is allowed (and encouraged) for under-18s in the UK, self-referral is not yet mandated for those aged 18 or above, creating an additional barrier to early intervention for emerging adults.<sup>86</sup> Given the recent rise in ED referrals (leading on from the COVID-19 pandemic), introducing UK-wide self-referrals for adults may overwhelm a system, which already has an established demand-capacity gap, due to a (hypothesized) influx of self-referrals from those with milder/minor EDs.<sup>87</sup> Regardless, this difference in referral pathways creates a clear health inequality between age populations, which needs to be addressed. In 2023, clinical and academic researchers in an expert consensus consortium recommended all-age self-referrals, to facilitate early intervention via direct access to specialist care.<sup>88</sup>

Training programs for primary care are also being developed, to address knowledge gaps and delays in or lack of detection of EDs. These programs aim to increase ED awareness and knowledge on how to refer patients into specialist treatment, as well as provide practical tools to facilitate the referral process.<sup>71</sup> A recent Australian study examined an approach to increase ED screening among GPs.<sup>89</sup> This approach involves three components. First, providing GPs with a simple referral procedure for assessment and treatment pathways. Second, providing an electronic screening tool, and



thirdly, providing GPs with information on how to screen for EDs. After following the program, GPs reported feeling more confident in their ability to identify and support people with an ED, leading to an almost threefold increase in ED referrals. Other initiatives, however, have not been as successful. In Germany, the public health intervention psychenet was implemented, in order to reduce DUED for people with AN.<sup>90</sup> As well as establishing a multidisciplinary healthcare network for primary care practitioners, the intervention ran a mental health literacy campaign and developed an online treatment guide for people with EDs. Results showed that DUED for participants was not significantly different pre- and post-intervention (time between symptom onset and start of treatment being 36.5 months and 40.1 months, respectively). Whether this study fails due to methodological and practical reasons (eg, the sample sizes being too small or not reaching the target population), or due to the intervention as a whole being ineffective, remains unclear. Nonetheless, the authors did find that participants in both pre- and post-intervention samples most frequently went to their GPs at the start of the help-seeking process. This finding emphasizes the importance of primary care practitioners in facilitating early intervention. Future initiatives should be targeted at primary care practitioners, with the aim of increasing knowledge and understanding of referral pathways and screening procedures, to improve rates of early detection and treatment access.

## Service-Related Factors

The main ED service-related barriers to early intervention stem from limited resources and personnel, out of keeping with clinical need.<sup>91</sup> Examples include lengthy waiting lists and narrow referral criteria that exclude patients with certain types of diagnoses (eg, BED, ARFID or having a weight threshold for accepting AN referrals). These factors are further compounded by high rates of non-attendance at initial ED appointments, as well as high levels of patient drop-out following assessment.

Non-attendance rates for first ED appointments are as high as those for community psychiatry and substance abuse services.<sup>92</sup> A study by Leavey et al, for example, found that 26% of individuals missed their initial appointment when referred to a major ED unit in London.<sup>93</sup> This non-attendance has cost implications and also impacts healthcare resources, leading to administrative and clinical time-losses. Furthermore, non-attendance has been linked to poorer clinical outcomes for patients.<sup>94</sup> As such, the reasons for non-attendance must be understood and managed to ensure better outcomes for patients and to make the best use of limited healthcare resources.

Research has identified several service-related factors that may contribute to a patient's decision to miss an ED appointment. One significant factor is long treatment waiting times. Studies show that longer waiting times can demotivate patients by diminishing their readiness for change following initial contact.<sup>95</sup> For every week that passes between referral and an initial appointment, one study found that the chances of the patient attending decreased by 15%. Notably, patients who waited more than 4 weeks were also 2.4 times more likely to not attend (frequently referred to as "Did Not Attend" or DNA).<sup>96</sup> This suggests that, for early intervention to be successful, patients should ideally begin ED treatment within 4 weeks of referral.<sup>22</sup> In line with this, 4 weeks is currently the wait-time target for starting treatment in Child and Adolescent ED services in the UK, as well as for the FREED model for 16–25-year olds. A qualitative study with FREED patients found that rapid access to treatment meant that patients received care before they had time to reconsider their decision to seek help, thereby "striking while the iron is hot".<sup>70</sup>

To reduce DNA rates and manage long waiting lists, various digital options are currently being employed. Sending automated text messages about appointments is a simple, direct way for healthcare services to stay in contact. Illustrating the utility of this approach, a meta-analysis found that SMS reminders increased the chances of attendance in an initial healthcare assessment by 50%.<sup>97</sup> Another helpful approach to decrease non-attendance is the active management of treatment waiting lists. By emphasizing patient choice when making an appointment, evidence suggests that "opt-in" procedures can decrease waiting times within ED services and reduce the likelihood of non-attendance (from approximately 20% to 15%, as reported by Jenkins et al).<sup>98,99</sup> An example of a more novel approach to reduce DNAs is MotivATE, an automated, online program specifically designed to increase motivation and confidence to attend an initial ED appointment, by providing users with access to motivational tools, information on EDs, and lived experience stories.<sup>58</sup> Although primary analyses revealed no overall difference in appointment attendance following a written invitation to access MotivATE, secondary analyses did show improved attendance for those who actively engaged

with the program. Whether this is because MotivATE improved motivation to attend (as hypothesized) or because more motivated individuals were more likely to engage with the program, however, remains unclear.

If there is high service demand, there are strategies available to bridge the gap between referral and treatment. The FREED pathway, for example, offers a biopsychosocial, person-centered assessment within 2 weeks of referral to each patient, focused on managing expectations around treatment and on change-focused strategies that patients could use to prepare for treatment. Although the specific effects of the FREED assessment have not yet been quantified, a study by Fursland et al did examine the impact of a single session 75–90-min psychoeducational assessment for ED patients. Delivered 16 days after referral, this intervention led to significant reductions in waiting list time, decreased DNA rates, and improved ED symptoms.<sup>100</sup>

Access to ED treatment depends on the availability and capacity of services, along with other factors such as referral criteria (eg, only accepting referrals for AN and BN but not BED, or having weight thresholds). To increase service accessibility, free (or low-cost) materials can be promoted for patient populations that would otherwise have limited access to ED services (eg, due to long waiting times). Examples include self-help resources and online interventions, which can be tailored to address the specific needs of young people with eating difficulties. One intervention that reduces treatment wait time and alleviates service pressure is the option of abbreviated treatment, such as guided self-help (GSH) for those with binge/purge ED. Although this approach is recommended by NICE as first-line treatment, it is not currently widely adopted in the UK (with GSH only being offered to 15% of eligible patients in the FREED pathway). Research has shown that this intervention leads to similar clinical outcomes to longer in-person treatments (eg, CBT-T or CBT-ED).<sup>101</sup>

Finally, lack of choice regarding treatment options may dissuade patients from starting or continuing with ED therapy. For example, in a clinical trial in adolescents with BN, comparing family therapy with cognitive-behavioral GSH, a subgroup of young people did not want to join the study for fear of being allocated to family therapy.<sup>102</sup> Complex life circumstances (eg, instability and unpredictability) have also been described by patients as a barrier to treatment retention and engagement.<sup>70</sup> For example, patients may need treatment to be scheduled around work shift patterns and family commitments. Although one of the central goals of early intervention is to tailor interventions to the individual, the state funded sector may not be able to accommodate some individual needs due to limited resources (eg, not being able to schedule out-of-hours appointments), thereby introducing incongruence between patients' expectations and service delivery of treatment.<sup>93</sup>

One initiative that focuses on increasing the accessibility and flexibility of service provision is ED “drop-in” programs. Although not currently adopted in routine clinical practice, a pilot drop-in program was run in Sweden, staffed by a multi-disciplinary team of ED healthcare professionals.<sup>103</sup> The program enabled prospective patients to simply “show up” to the ED service and attend psychoeducational sessions, support groups, and specialist assessments without a referral, prior booking, or need to commit to more intensive treatment. In semi-structured interviews assessing the program, “freedom of choice” and “accessibility” emerged as two themes that were key to increasing therapeutic engagement and facilitating the early identification of EDs. Specifically, patients emphasized the importance of being able to choose what they participated in, as well as the importance of having readily available access to professional support. This was reflected by reduced drop-out rates, increased motivation to engage, and a strengthened therapeutic alliance, as reported by the participants. In a similar manner, a few UK-based charities run ED-related support groups, which can be attended on a flexible basis without a need for an ED diagnosis. The Student Minds charity, for example, runs structured and unstructured “eating difficulty” groups for university students experiencing less severe ED symptoms. Guided by a group facilitator, participants are encouraged to suggest discussion topics and are signposted to information about accessing professional care.<sup>104</sup> Similarly, the Beat charity runs daily online support groups for people to “drop-in” to, with groups running according to ED-related symptoms (AN, BN, BED, and ARFID), age (under or over-25), and gender (whether you identify as male).<sup>105</sup> The range of groups and informal atmosphere may help facilitate early intervention, by providing a first step to accessing support for those who may be reluctant to receive a formal diagnosis or contact a specialist service.

Innovative approaches, such as these, are therefore helping to transform aspects of early intervention for EDs, although this will require changes in how healthcare is delivered at the level of clinicians, services, and regulatory frameworks.

## Healthcare System-Related Factors

To significantly improve access to and implementation of early intervention for EDs, policy change and increased government funding are essential. This higher-level support is needed to address overarching, healthcare system-related barriers, primarily the “treatment gap” and the “research-practice gap.” The treatment gap pertains to the large number of individuals who require professional help but do not receive it, due to issues with service capacity and outreach. The “research-practice gap” refers to the (lack of) translation of evidence-based treatments, from research settings to clinical practice.

Firstly, access to specialized ED units has a significant impact on early ED detection and intervention. Compared to general mental health services, specialist ED services have the benefit of direct pathways from primary care, as well as healthcare professionals with the capacity, skillset and training required to provide evidence-based (ie, NICE recommended) treatment for EDs. In Greater London, UK, for example, a 2012 study showed that areas with a specialist service were able to identify 2–3 times more ED cases than areas without.<sup>106</sup> The rate of inpatient admission was 2.5 times lower for patients who started treatment on a specialized care pathway, rather than a non-specialized one. Notably, a health economic analysis also revealed significant cost differences for those who started treatment in a specialized ED unit compared to a generic mental health service (approximate 1-year healthcare costs equaling £17k and over £41k, respectively).<sup>107</sup> Given the considerable clinical and economic cost benefits, there is a clear incentive to develop easily accessible pathways to specialized ED care. Funding was therefore allocated to enable a UK systems-level transformation for Children and Young People (CYP) ED services in 2016, equaling £30 million/year. This NHS England Access and Waiting Time Guideline for CYP resulted in the development of a network of over 70 CYP ED services and the England-wide upskilling of CYP staff via a whole-team training approach (for a review, see Eisler et al 2022).<sup>108</sup> As recommended by the Royal College of Psychiatrists (RCPsych) in 2017, parallel funding should be allocated to support large-scale adult ED service reforms, with efforts to expand the trained workforce and increase service outreach. This is important for those individuals who develop an ED during adulthood, with ED onset occurring after the age of 18 for approximately 51.9% of individuals and after the age of 25 for 17.6%.<sup>1</sup> Some efforts have been made to progress early intervention for adults with EDs, as outlined in the NHS Mental Health implementation plan.<sup>109</sup>

Compounding ED service access as a barrier to early intervention is the occurrence of age-related service transitions. Such transitions (especially if mainly determined by age and not individual need) can result in treatment delays, discontinuity of care, deterioration and relapse among patients.<sup>110</sup> To reduce the impact of service transitions during a first-treatment episode, transition protocols and care pathways should be developed jointly between CYP and adult ED services. To remove age-related transitions as a barrier to early intervention, RCPsych guidelines suggested an evaluation of service models, comparing the merits of the CYP/adult model with all-age or 0–25 service models (which may offer a more seamless treatment pathway).<sup>111</sup>

The shortage of trained workers in the mental health field is another fundamental barrier to early intervention, given that the delivery of evidence-based treatment depends on clinician availability. The number of active mental health practitioners in the US, for example, has been approximated at 700,000.<sup>112</sup> As estimated 30 million people in the US will experience an ED at some point during their life, it is difficult to envision how there would be enough professionals (skilled in ED treatment) to sufficiently treat this population.<sup>113</sup> This shortage of trained workers is a particular problem for communities with low population density, given that mental health practitioners and specialist ED services are typically concentrated in urban areas.<sup>114</sup> To provide underserved rural populations with specialized ED care, as in Canada and Australia, ED “hub and spokes models” can be established at relatively low cost.<sup>15</sup> Smaller outreach clinics (ie, the “spokes”) can be developed in local communities, which are located a long distance from larger ED services (ie, the hubs), or in areas with high concentrations of at-risk individuals, such as universities.

Other than building outreach clinics and training individuals to become specialized clinicians (a process that takes many years to complete), initiatives should focus on promoting “task-sharing” to meet service demand. Task-sharing splits the roles of clinicians with other staff members, such as peer support workers, experts with experience, and therapists who deliver lower-intensity treatments (eg, GSH). Having this range of staff not only increases service capacity but also creates a diverse workforce that may be better able to meet the needs of a heterogeneous patient population.

Virtually delivered GSH is an example of a task-sharing strategy with positive results. In a preliminary study by Dalton et al, non-experts delivered GSH over video to 130 individuals with BN, BED, and OSFED. Following eight sessions of treatment, participants reported large reductions in ED behaviors and attitudinal symptoms, as measured by the ED-15.<sup>115</sup> Despite receiving limited training, these results show that with appropriate supervision and training, non-experts can successfully deliver virtual GSH, which can be used as a brief, focused intervention for EDs on the bulimic spectrum. The 'train the trainer' (TTT) model is another example of a promising task-sharing strategy. In the TTT model, a designated practitioner is trained to both deliver a treatment and to train and supervise others in its implementation. In a study by Zandberg et al, a designated practitioner trained seven doctoral students in cognitive-behavioral GSH for recurrent binge eating. Following training, GSH was delivered by the upskilled students to 38 treatment-seeking participants, resulting in significant reductions in ED psychopathology and functional impairment.<sup>116</sup> These results not only demonstrate the feasibility and effectiveness of the TTT model but also demonstrate its potential to bridge the treatment gap via task-sharing with non-specialists.

Digital interventions can be run fully automated and across geographical barriers, to reach individuals who may otherwise be at-risk of developing an ED. Online early intervention programs may therefore act as a complementary approach to task-sharing, to meet rising service demand with limited staff. AcceptME is an example of a self-directed, gamified early-intervention program for EDs. Based on Acceptance and Commitment Therapy, users help a character overcome personal ED-related difficulties, such as weight and shape concerns. This program provides users with opportunities for vicarious learning, increased acceptance, and greater body image flexibility. Promising results from a clinical trial showed that 57% of AcceptME users ended up below the at-risk cut-off on the Weight Concerns Scale, compared to 7% of controls.<sup>117</sup> Another ongoing, online project is the ProYouth program, developed in 2011 to help bridge the gap between prevention and early intervention. In a recent study, over 3500 users accessed the ProYouth platform, which was promoted via a variety of channels (eg, high schools, the internet, and print materials).<sup>118</sup> This therefore shows that early intervention initiatives can be successfully translated from research to real-world contexts.

Despite EDs being among the most severe mental health illnesses, with one of the highest mortality rates, ED research has historically received low funding. In 2021, for example, only 7.5% of the 1.35 billion fund (from the National Health and Medical Research Council) was allocated to broad mental health research. Within this category, across all mental health conditions, the highest discrepancy between funding and disease burden was for ED research.<sup>119</sup> When examining funding in Australia between 2009 and 2021, Bryant et al found that ED research investment equated to \$2.05 per affected individual, compared to \$19.56 for depression, \$32.11 for autism, and \$176.19 for schizophrenia.<sup>119</sup> Notably, ED research was the only mental health category that saw no significant increase in funding across the 13 years. Half of this funding was for "basic" research (ie, illness underpinning), with limited investment in translational or applied research (ie, ED detection, treatment development, and management of illness and health services). A 2021 report published by Beat and the All-Party Parliamentary Group (APPG) on Eating Disorders found similar levels of underfunding for ED research in the UK.<sup>120</sup> Between 2009 and 2019, ED research funding equated to only £1.13 per affected person per year. This was equivalent to 1% of UK mental health research funding, despite people with EDs accounting for 9% of people in the UK with a mental health condition. A minimum 9–13 fold increase in research funding was recommended, to reach between £13 and £18 million a year, although £50 to £100 million a year was stated as the ambition.

This historic underfunding of ED research has resulted in a lack of active ED researchers and research centers. The APPG 2021 report described this as a "vicious cycle", leading to fewer ED grant applications being submitted and less ED research being published.<sup>120</sup> Without active researchers and sufficient funding for translational or applied research, innovation within early intervention for EDs is severely limited. A recent review by Allen et al identified several streams of research that should be prioritized. Implementation studies, for example, are needed to investigate the effectiveness, scalability, and sustainability of early intervention pathways. Key research themes also include neurobiological studies (characterizing the genetic and neurobiological profiles of first-episode cohorts) and clinical studies (to develop assessment and illness stage-appropriate treatment procedures for young people and marginalized patient populations).<sup>15</sup> To address this research-practice gap, encouraging initiatives are currently being employed across the globe. In the US, for example, the Strategic Training Initiative for the Prevention of EDs (STRIPED) is bringing together experts to promote transdisciplinary collaboration on ED detection, prevention and treatment seeking.<sup>121</sup> In the UK, the 4-year EDIFY project (Eating Disorders: Delineating illness and recovery trajectories to inform personalized prevention and early

intervention in young people) includes six core workstreams, investigating how EDs progress and are maintained. Initial investments and research agendas are also being developed in Australia and Canada, with a focus on early intervention for EDs.<sup>122</sup> Together, these global initiatives are a promising starting point for early intervention, with the overall aim of facilitating timely access to ED services for all populations, regardless of age, gender, ethnicity and socioeconomic background.

## Discussion

This narrative review aims to provide a comprehensive overview of the facilitators and barriers to early intervention for eating disorders. Various patient-, clinician-, service-, and healthcare system-related factors that impact early intervention are presented, and approaches to facilitate early intervention or to address barriers are highlighted.

One of the most significant patient-related barriers to early intervention is low help-seeking, driven by a variety of factors such as self-stigmatization and shame, lack of problem awareness and denial/downplaying of illness severity. By definition, early intervention should tailor and target treatment interventions to the individual's specific needs and stage of illness. A range of initiatives to tackle the complex intrinsic and extrinsic patient-related factors affecting help-seeking should be developed and one approach is unlikely to fit all. Models such as FREED have shown promise in increasing treatment uptake for young people by incorporating a range of youth-friendly adaptations such as active outreach and engagement, early developmentally tailored psychoeducation, and change-focused assessment procedures. These initiatives place an emphasis on "starting the treatment well", including an optimistic therapeutic stance focused on recovery, building young people's motivation and commitment to change and enlisting support from close others as appropriate, together with setting realistic expectations and early goal setting. All of this is designed to maximize early change, which is predictive of clinical outcomes.<sup>123</sup>

Digital interventions to encourage increased help-seeking for young people are in development, such as the ProYouth program and FREED-Mobile. Efforts should be made to incorporate these digital interventions into a diverse therapeutic toolkit that meets the needs and preferences of different patient groups and clinicians. However, as highlighted by Hollis et al, it should not be assumed that patients prefer digital over printed formats.<sup>124</sup> Moving forward, the cost and clinical effectiveness of these novel online interventions should be evaluated, and the accessibility of readily available interventions should be increased (eg, by making interventions available in different languages).

Parents and carers are well-placed to facilitate early intervention, by spotting emerging ED symptoms and perhaps being more motivated than the young person themselves to seek help.<sup>15</sup> Parents of children with EDs on treatment waitlists have shown improvements in knowledge, skills, and confidence in managing AN after receiving GSH.<sup>67</sup> Importantly, involvement of parents and young people's need of support from their family does not stop when they reach age 18 (ie, emerging adulthood). In recognition of this, FREED encourages family involvement for emerging adults (18+). Increasingly, studies are exploring use of family or multi-family therapy in young adults with AN and in BN.<sup>102,125</sup>

More research is needed on how to best support parents to facilitate early intervention across both adolescent and young adult groups, and how to enable/empower clinicians to encourage family involvement in treatment, whilst still respecting patient choice. The lack of training for medical staff and the importance of greater training and screening tools for primary care staff have already been emphasized widely.<sup>7,126</sup> UK ED charity Beat has recently launched a training package for medical students and foundation doctors after an investigation conducted by the Parliamentary and Health Service Ombudsman.<sup>127</sup> Other training programs and screening tools have shown promise in increasing referrals from primary care services for assessment.<sup>89</sup> However, there are currently no evaluations of the benefits and harms of routine screening versus no screening.<sup>128</sup> The uptake and sustainability of new training programs is also not known. Given the high turnover of staff in the mental health field, pre-emptive efforts should be made to make new training sustainable.<sup>129</sup> As well as the TTT model, recordings of training, adherence checklists, and "frequently asked questions" documents could be developed for trainees.<sup>88</sup>

At the service and healthcare system level, staffing gaps remain an important service-related barrier to early intervention. In the UK, demand for adult ED services is far exceeding capacity and substantial investment is required to ensure these services operate at a safe level.<sup>91</sup> Qualitative research interviewing innovation experts supporting the national scaling of the FREED early intervention model also highlights staffing issues as a key barrier to early intervention for EDs in the UK and that long-term investment in early intervention is essential.<sup>69</sup> In the immediate term, briefer, less resource-intensive interventions such as task-sharing and GSH may help reduce waitlists in ED services. Although GSH (or brief versions of evidence-based treatment) is not



currently widely incorporated into routine clinical practice, there is scope to implement these interventions as evidence-based, scalable, and accessible treatment options.<sup>101</sup>

Research funding is still disproportionately low for EDs, making it particularly difficult to evaluate the effectiveness and feasibility of new interventions in large-scale, randomized, controlled trials. In an expert consensus statement, Davey et al highlighted the utility of adopting pragmatic implementation and practice-based approaches for ED early intervention research.<sup>88</sup> Evidence for new treatments can be gathered during practice, using clinical observation and lived experience, often in a timelier manner than for larger-scale clinical trials. To have long-term success in a service-level transformation, however, ongoing evaluation and audit is recommended.<sup>108</sup> This includes collecting data from individual services (eg, clinical outcomes and patient feedback), as well as from across services (eg, service waiting times and demand).

This review is limited by adopting a narrative approach, which increases the risk of selection bias. As our search was not as extensive as a systematic or scoping review method, it is likely that certain literature or topics have been unknowingly omitted. However, our aim in conducting a narrative review was to provide a broader coverage and integration of research and issues in early intervention for EDs not covered by existing systematic reviews and meta-analyses.

## Conclusion

Individuals with EDs face many barriers to all aspects of early intervention, from problem recognition and early detection, to accessing timely specialist assessment and appropriate evidence-based treatment. To remove these barriers to early intervention, several strategies are currently being developed. Through innovative digital tools, patient outreach programs, and education of primary healthcare professionals, these strategies aim to facilitate timely recognition of EDs, and promote access to (and utilization of) ED services. These interventions and services, however, are only beginning to emerge. For early intervention to become a standard part of best practice care around the globe, such as the FREED service model in England, a combined top-down and bottom-up approach is key. Government support, funding, and policy change are needed to tackle systemic barriers in service provision and prioritize research into early intervention for EDs.

## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

## Funding

LH receives a PhD studentship from the Health Foundation. US is supported by the Medical Research Council/Arts and Humanities Research Council/Economic and Social Research Council Adolescence, Mental Health and the Developing Mind initiative as part of the EDIFY programme (grant number MR/W002418/1). US receives salary support from the National Institute of Health Research (NIHR) Biomedical Research Centre (BRC) at the South London and Maudsley NHS Foundation Trust (SLaM) and King's College London (KCL). The views expressed are those of the authors and not necessarily those of the Health Foundation, NHS, NIHR or Department of Health.

## Disclosure

RM, LH and US are part of the FREED national team, located at South London and Maudsley NHS Foundation Trust Eating Disorder Service. LH reports PhD Studentship from Health Foundation, outside the submitted work. The authors report no other conflicts of interest in this work.

## References

1. Solmi M, Radua J, Olivola M, et al. Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Mol Psychiatry*. 2022;27(1):281–295. doi:10.1038/s41380-021-01161-7
2. van Hoeken D, Hoek HW. Review of the burden of eating disorders: mortality, disability, costs, quality of life, and family burden. *Curr Opin Psychiatry*. 2020;33(6):521. doi:10.1097/YCO.0000000000000641

3. Treasure J, Duarte TA, Schmidt U. Eating disorders. *Lancet Lond Engl*. 2020;395(10227):899–911. doi:10.1016/S0140-6736(20)30059-3
4. Galmiche M, Déchelotte P, Lambert G, Tivolacci MP. Prevalence of eating disorders over the 2000–2018 period: a systematic literature review. *Am J Clin Nutr*. 2019;109(5):1402–1413. doi:10.1093/ajcn/nqy342
5. Eddy KT, Tabri N, Thomas JJ, et al. Recovery From Anorexia Nervosa and Bulimia Nervosa at 22-Year Follow-Up. *J Clin Psychiatry*. 2017;78(2):184–189. doi:10.4088/JCP.15m10393
6. Investing in need: cost-effective interventions for eating disorders. Butterfly Foundation; 2014. Available from: <https://butterfly.org.au/>. Accessed July 31, 2023.
7. Streatfeild J, Hickson J, Austin SB, et al. Social and economic cost of eating disorders in the United States: evidence to inform policy action. *Int J Eat Disord*. 2021;54(5):851–868. doi:10.1002/eat.23486
8. Tannous WK, Hay P, Girosi F, Heriseanu AI, Ahmed MU, Touyz S. The economic cost of bulimia nervosa and binge eating disorder: a population-based study. *Psychol Med*. 2021;1–15. doi:10.1017/S0033291721000775
9. Watson HJ, Jangmo A, Smith T, et al. A register-based case-control study of health care utilization and costs in binge-eating disorder. *J Psychosom Res*. 2018;108:47–53. doi:10.1016/j.jpsychores.2018.02.011
10. Bode K, Götz von Olenhusen NM, Wunsch E-M, Kliem S, Kröger C. Population-based cost-offset analyses for disorder-specific treatment of anorexia nervosa and bulimia nervosa in Germany. *Int J Eat Disord*. 2017;50(3):239–249. doi:10.1002/eat.22686
11. McGorry PD, Ratheesh A, O'Donoghue B. Early Intervention—An Implementation Challenge for 21st Century Mental Health Care. *JAMA Psychiatry*. 2018;75(6):545–546. doi:10.1001/jamapsychiatry.2018.0621
12. Austin A, Flynn M, Richards K, et al. Duration of untreated eating disorder and relationship to outcomes: a systematic review of the literature. *Eur Eat Disord Rev*. 2021;29(3):329–345. doi:10.1002/erv.2745
13. Ambwani S, Cardi V, Albano G, et al. A multicenter audit of outpatient care for adult anorexia nervosa: symptom trajectory, service use, and evidence in support of “early stage” versus “severe and enduring” classification. *Int J Eat Disord*. 2020;53(8):1337–1348. doi:10.1002/eat.23246
14. Currin L, Schmidt U. A critical analysis of the utility of an early intervention approach in the eating disorders. *J Ment Health*. 2005;14(6):611–624. doi:10.1080/09638230500347939
15. Allen KL, Mountford VA, Elwyn R, et al. A framework for conceptualising early intervention for eating disorders. *Eur Eat Disord Rev*. 2023;31(2):320–334. doi:10.1002/erv.2959
16. Austin A, Flynn M, Shearer J, et al. The First Episode Rapid Early Intervention for Eating Disorders - Upscaled study: clinical outcomes. *Early Interv Psychiatry*. 2022;16(1):97–105. doi:10.1111/eip.13139
17. Wade TD, Wilksch SM. Internet eating disorder prevention. *Curr Opin Psychiatry*. 2018;31(6):456–461. doi:10.1097/YCO.0000000000000450
18. Stice E, Johnson S, Turgon R. Eating Disorder Prevention. *Psychiatr Clin North Am*. 2019;42(2):309–318. doi:10.1016/j.psc.2019.01.012
19. Koreshe E, Paxton S, Miskovic-Wheatley J, et al. Prevention and early intervention in eating disorders: findings from a rapid review. *J Eat Disord*. 2023;11(1):38. doi:10.1186/s40337-023-00758-3
20. Early Intervention Eating Disorders: supporting Mental Health Teams Across England to Speed Up Diagnosis and Treatment of Eating Disorders in Young People. Academic Health Science Network; 2020. Available from: <https://www.ahsnnetwork.com/about-academic-health-science->. Accessed August 31, 2023.
21. Schmidt U, Brown A, McClelland J, Glennon D, Mountford VA. Will a comprehensive, person-centered, team-based early intervention approach to first episode illness improve outcomes in eating disorders? *Int J Eat Disord*. 2016;49(4):374–377. doi:10.1002/eat.22519
22. McClelland J, Hodsoll J, Brown A, et al. A pilot evaluation of a novel First Episode and Rapid Early Intervention service for Eating Disorders (FREED). *Eur Eat Disord Rev*. 2018;26(2):129–140. doi:10.1002/erv.2579
23. O'Connell N, O'Connor K, McGrath D, et al. Early Intervention in Psychosis services: a systematic review and narrative synthesis of the barriers and facilitators to implementation. *Eur Psychiatry*. 2022;65(1):e2. doi:10.1192/j.eurpsy.2021.2260
24. Greenhalgh T, Thorne S, Maltersud K. Time to challenge the spurious hierarchy of systematic over narrative reviews? *Eur J Clin Invest*. 2018;48(6):e12931. doi:10.1111/eci.12931
25. Ali K, Farrer L, Fassnacht DB, Gulliver A, Bauer S, Griffiths KM. Perceived barriers and facilitators towards help-seeking for eating disorders: a systematic review. *Int J Eat Disord*. 2017;50(1):9–21. doi:10.1002/eat.22598
26. Regan P, Cachelin FM, Minnick AM. Initial treatment seeking from professional health care providers for eating disorders: a review and synthesis of potential barriers to and facilitators of “first contact”. *Int J Eat Disord*. 2017;50(3):190–209. doi:10.1002/eat.22683
27. Radunz M, Ali K, Wade TD. Pathways to improve early intervention for eating disorders: findings from a systematic review and meta-analysis. *Int J Eat Disord*. 2023;56(2):314–330. doi:10.1002/eat.23845
28. Innes NT, Clough BA, Casey LM. Assessing treatment barriers in eating disorders: a systematic review. *Eat Disord*. 2017;25(1):1–21. doi:10.1080/10640266.2016.1207455
29. Nicula M, Pellegrini D, Grennan L, Bhatnagar N, McVey G, Couturier J. Help-seeking attitudes and behaviours among youth with eating disorders: a scoping review. *J Eat Disord*. 2022;10(1):21. doi:10.1186/s40337-022-00543-8
30. Daugelat MC, Pruccoli J, Schag K, Giel KE. Barriers and facilitators affecting treatment uptake behaviours for patients with eating disorders: a systematic review synthesising patient, caregiver and clinician perspectives. *Eur Eat Disord Rev*. 2023. doi:10.1002/erv.2999
31. Keski-Rahkonen A, Mustelin L. Epidemiology of eating disorders in Europe: prevalence, incidence, comorbidity, course, consequences, and risk factors. *Curr Opin Psychiatry*. 2016;29(6):340–345. doi:10.1097/YCO.0000000000000278
32. Zaitsoff SL, Taylor A. Factors related to motivation for change in adolescents with eating disorders. *Eur Eat Disord Rev J Eat Disord Assoc*. 2009;17(3):227–233. doi:10.1002/erv.915
33. Clausen L, Lübeck M, Jones A. Motivation to change in the eating disorders: a systematic review. *Int J Eat Disord*. 2013;46(8):755–763. doi:10.1002/eat.22156
34. Mond JM, Robertson-Smith G, Vetere A. Stigma and eating disorders: is there evidence of negative attitudes towards anorexia nervosa among women in the community? *J Ment Health*. 2006;15(5):519–532. doi:10.1080/09638230600902559
35. Ebner DS, Latner JD. Stigmatizing attitudes differ across mental health disorders: a comparison of stigma across eating disorders, obesity, and major depressive disorder. *J Nerv Ment Dis*. 2013;201(4):281–285. doi:10.1097/NMD.0b013e318288e23f
36. Stewart MC, Keel PK, Schiavo RS. Stigmatization of anorexia nervosa. *Int J Eat Disord*. 2006;39(4):320–325. doi:10.1002/eat.20262

37. O'Connor C, McNamara N, O'Hara L, McNicholas M, McNicholas F. How do people with eating disorders experience the stigma associated with their condition? A mixed-methods systematic review. *J Ment Health Abingdon Engl*. 2021;30(4):454–469. doi:10.1080/09638237.2019.1685081
38. Crisp A. Stigmatization of and discrimination against people with eating disorders including a report of two nationwide surveys. *Eur Eat Disord Rev*. 2005;13(3):147–152. doi:10.1002/erv.648
39. Brelet L, Flaudias V, Désert M, Guillaume S, Llorca PM, Boirie Y. Stigmatization toward People with Anorexia Nervosa, Bulimia Nervosa, and Binge Eating Disorder: a Scoping Review. *Nutrients*. 2021;13(8):2834. doi:10.3390/nu13082834
40. McArdle S, Meade MM, Burrows E. Service Providers' Attitudes Toward Athletes With Eating Disorders. *Clin J Sport Med off J Can Acad Sport Med*. 2018;28(1):51–55. doi:10.1097/JSM.0000000000000406
41. Seah XY, Tham XC, Kamaruzaman NR, Yobas PK. Nurses' perception of knowledge, attitudes and reported practice towards patients with eating disorders: a concurrent mixed-methods study. *Arch Psychiatr Nurs*. 2018;32(1):133–151. doi:10.1016/j.apnu.2017.11.011
42. Räisänen U, Hunt K. The role of gendered constructions of eating disorders in delayed help-seeking in men: a qualitative interview study. *BMJ Open*. 2014;4(4):e004342. doi:10.1136/bmjopen-2013-004342
43. Mond JM, Hay PJ, Rodgers B, Owen C. Health service utilization for eating disorders: findings from a community-based study. *Int J Eat Disord*. 2007;40(5):399–408. doi:10.1002/eat.20382
44. Griffiths S, Mond JM, Murray SB, Touyz S. The prevalence and adverse associations of stigmatization in people with eating disorders. *Int J Eat Disord*. 2015;48(6):767–774. doi:10.1002/eat.22353
45. Brownlow RS, Maguire S, O'Dell A, Dias-da-Costa C, Touyz S, Russell J. Evaluation of an online training program in eating disorders for health professionals in Australia. *J Eat Disord*. 2015;3(1):37. doi:10.1186/s40337-015-0078-7
46. Brown A, McClelland J, Boysen E, Mountford V, Glennon D, Schmidt U. The FREED Project (first episode and rapid early intervention in eating disorders): service model, feasibility and acceptability. *Early Interv Psychiatry*. 2018;12(2):250–257. doi:10.1111/eip.12382
47. Farrell NR, Lee AA, Deacon BJ. Biological or psychological? Effects of eating disorder psychoeducation on self-blame and recovery expectations among symptomatic individuals. *Behav Res Ther*. 2015;74:32–37. doi:10.1016/j.brat.2015.08.011
48. Crisafulli MA, Von Holle A, Bulik CM. Attitudes towards anorexia nervosa: the impact of framing on blame and stigma. *Int J Eat Disord*. 2008;41(4):333–339. doi:10.1002/eat.20507
49. Bannatyne AJ, Abel LM. Can we fight stigma with science? The effect of aetiological framing on attitudes towards anorexia nervosa and the impact on volitional stigma. *Aust J Psychol*. 2015;67(1):38–46. doi:10.1111/ajpy.12062
50. Easter MM. "Not all my fault": genetics, stigma, and personal responsibility for women with eating disorders. *Soc Sci Med*. 2012;75(8):1408–1416. doi:10.1016/j.socscimed.2012.05.042
51. Doley JR, Hart LM, Stukas AA, Petrovic K, Bouguettaya A, Paxton SJ. Interventions to reduce the stigma of eating disorders: a systematic review and meta-analysis. *Int J Eat Disord*. 2017;50(3):210–230. doi:10.1002/eat.22691
52. Konstantakopoulos G, Tchanturia K, Surguladze SA, David AS. Insight in eating disorders: clinical and cognitive correlates. *Psychol Med*. 2011;41(9):1951–1961. doi:10.1017/S0033291710002539
53. Baier M. Insight in Schizophrenia: a Review. *Curr Psychiatry Rep*. 2010;12(4):356–361. doi:10.1007/s11920-010-0125-7
54. Geerling DM, Saunders SM. College students' perceptions of individuals with anorexia nervosa: irritation and admiration. *J Ment Health*. 2015;24(2):83–87. doi:10.3109/09638237.2014.998807
55. Gulliksen KS, Nordbø RHS, Espeset EMS, Skårderud F, Holte A. The process of help-seeking in anorexia nervosa: patients' perspective of first contact with health services. *Eat Disord*. 2015;23(3):206–222. doi:10.1080/10640266.2014.981429
56. Gregertsen EC, Mandy W, Serpell L. The Egocentric Nature of Anorexia: an Impediment to Recovery in Anorexia Nervosa Treatment. *Front Psychol*. 2017;8:2273. doi:10.3389/fpsyg.2017.02273
57. Pettersen G, Rosenvinge JH, Ytterhus B. The "Double Life" of Bulimia: patients' Experiences in Daily Life Interactions. *Eat Disord*. 2008;16(3):204–211. doi:10.1080/10640260802016696
58. Denison-Day J, Appleton KM, Newell C, Muir S. Improving motivation to change amongst individuals with eating disorders: a systematic review. *Int J Eat Disord*. 2018;51(9):1033–1050. doi:10.1002/eat.22945
59. Hötzel K, von BR, Schmidt U, et al. An internet-based program to enhance motivation to change in females with symptoms of an eating disorder: a randomized controlled trial. *Psychol Med*. 2014;44(9):1947–1963. doi:10.1017/S0033291713002481
60. Gruczk L, Monssen D, Davies MR, et al. Shortening Duration of Untreated Illness in Young People with First Episode Eating Disorders: a Randomised Controlled Feasibility Trial of a Smartphone Friendly Multi-Modal Decision-Making Tool (FREED-M) to Improve Help-Seeking. *Int J Eating Disorders*. 2022.
61. Ciao AC, Lebow J, VandenLangenberg E, Ohls O, Berg KC. A qualitative examination of adolescent and parent perspectives on early identification and early response to eating disorders. *Eat Disord*. 2022;30(3):249–266. doi:10.1080/10640266.2020.1805960
62. Thomson S, Marriott M, Telford K, Law H, McLaughlin J, Sayal K. Adolescents with a diagnosis of anorexia nervosa: parents' experience of recognition and deciding to seek help. *Clin Child Psychol Psychiatry*. 2014;19(1):43–57. doi:10.1177/1359104512465741
63. Bartholdy S, Allen K, Hodsoll J, et al. Identifying disordered eating behaviours in adolescents: how do parent and adolescent reports differ by sex and age? *Eur Child Adolesc Psychiatry*. 2017;26(6):691–701. doi:10.1007/s00787-016-0935-1
64. Nicholls DE, Yi I. Early intervention in eating disorders: a parent group approach. *Early Interv Psychiatry*. 2012;6(4):357–367. doi:10.1111/j.1751-7893.2012.00373.x
65. Rosello R, Gledhill J, Yi I, et al. Early intervention in child and adolescent eating disorders: the role of a parenting group. *Eur Eat Disord Rev*. 2021;29(3):519–526. doi:10.1002/erv.2798
66. Jacobi C, Hütter K, Völker U, et al. Efficacy of a Parent-Based, Indicated Prevention for Anorexia Nervosa: randomized Controlled Trial. *J Med Internet Res*. 2018;20(12):e9464. doi:10.2196/jmir.9464
67. Wade T, Byrne S, Fursland A, et al. Is guided self-help family-based treatment for parents of adolescents with anorexia nervosa on treatment waitlists feasible? A pilot trial. *Int J Eat Disord*. 2022;55(6):832–837. doi:10.1002/eat.23720
68. Lock J, Darcy A, Fitzpatrick KK, Vierhile M, Sadeh-Sharvit S. Parental guided self-help family based treatment for adolescents with anorexia nervosa: a feasibility study. *Int J Eat Disord*. 2017;50(9):1104–1108. doi:10.1002/eat.22733

69. Hyam L, Torkelson C, Richards K, et al. Early intervention isn't an option, it's a necessity": learning from Implementation Facilitators and Challenges from the Rapid Scaling of an Early Intervention Eating Disorders Programme in England. *Int J Eating Disorders*. 2023.
70. Potterton R, Austin A, Flynn M, et al. "I'm truly free from my eating disorder": emerging adults' experiences of FREED, an early intervention service model and care pathway for eating disorders. *J Eat Disord*. 2021;9(1):3. doi:10.1186/s40337-020-00354-9
71. Monteleone AM, Barone E, Cascino G, et al. Pathways to eating disorder care: a European multicenter study. *Eur Psychiatry*. 2023;66(1):e36. doi:10.1192/j.eurpsy.2023.23
72. Evans EJ, Hay PJ, Mond J, et al. Barriers to Help-Seeking in Young Women With Eating Disorders: a Qualitative Exploration in a Longitudinal Community Survey. *Eat Disord*. 2011;19(3):270–285. doi:10.1080/10640266.2011.566152
73. Hay P, Ghabrial B, Mannan H, et al. General practitioner and mental healthcare use in a community sample of people with diagnostic threshold symptoms of bulimia nervosa, binge-eating disorder, and other eating disorders. *Int J Eat Disord*. 2020;53(1):61–68. doi:10.1002/eat.23174
74. Linville D, Benton A, O'Neil M, Sturm K. Medical Providers' Screening, Training and Intervention Practices for Eating Disorders. *Eat Disord*. 2010;18(2):110–131. doi:10.1080/10640260903585532
75. Hit and Miss' Experiences of people with eating disorders seeking help from Healthcare Professionals. Beat; 2021. Available from: [https://beat.contentfiles.net/media/documents/Hit\\_and\\_Miss\\_EDAW\\_Report.pdf](https://beat.contentfiles.net/media/documents/Hit_and_Miss_EDAW_Report.pdf). Accessed July 31, 2023.
76. Hambleton A, Pepin G, Le A, et al. Psychiatric and medical comorbidities of eating disorders: findings from a rapid review of the literature. *J Eat Disord*. 2022;10(1):132. doi:10.1186/s40337-022-00654-2
77. Jahraus J. Medical Complications of Eating Disorders. *Psychiatr Ann*. 2018;48(10):463–467. doi:10.3928/00485713-20180912-04
78. Kennedy GA, Forman SF, Woods ER, et al. History of Overweight/Obesity as Predictor of Care Received at 1-year Follow-Up in Adolescents With Anorexia Nervosa or Atypical Anorexia Nervosa. *J Adolesc Health off Publ Soc Adolesc Med*. 2017;60(6):674–679. doi:10.1016/j.jadohealth.2017.01.001
79. Bryant E, Spielman K, Le A, et al. Screening, assessment and diagnosis in the eating disorders: findings from a rapid review. *J Eat Disord*. 2022;10(1):78. doi:10.1186/s40337-022-00597-8
80. Roberts KJ, Chaves E. Beyond Binge Eating: the Impact of Implicit Biases in Healthcare on Youth with Disordered Eating and Obesity. *Nutrients*. 2023;15(8):1861. doi:10.3390/nu15081861
81. Morgan JF, Reid F, Lacey JH. The SCOFF questionnaire: assessment of a new screening tool for eating disorders. *BMJ*. 1999;319(7223):1467–1468. doi:10.1136/bmj.319.7223.1467
82. Stice E, Telch CF, Rizvi SL. Development and validation of the Eating Disorder Diagnostic Scale: a brief self-report measure of anorexia, bulimia, and binge-eating disorder. *Psychol Assess*. 2000;12(2):123–131. doi:10.1037/1040-3590.12.2.123
83. Fairburn CG, Beglin SJ. Assessment of eating disorders: interview or self-report questionnaire? *Int J Eat Disord*. 1994;16(4):363–370. doi:10.1002/1098-108X(199412)16:4
84. Garner DM, Olmsted MP, Bohr Y, Garfinkel PE. The Eating Attitudes Test: psychometric features and clinical correlates. *Psychol Med*. 1982;12(4):871–878. doi:10.1017/S0033291700049163
85. Bryant E, Miskovic-Wheatley J, Touyz SW, Crosby RD, Koreshe E, Maguire S. Identification of high risk and early stage eating disorders: first validation of a digital screening tool. *J Eat Disord*. 2021;9(1):109. doi:10.1186/s40337-021-00464-y
86. Access and Waiting Time Standard for Children and Young People with an Eating Disorder. Commissioning Guide Version 1.0. NHS; 2015. Available from: <https://www.england.nhs.uk/wp-content/uploads/2015/07/cyp-eating-disorders-access-waiting-time-standard-comm-guid.pdf>. Accessed August 21, 2023.
87. Hyam L, Richards KL, Allen KL, Schmidt U. The impact of the COVID-19 pandemic on referral numbers, diagnostic mix, and symptom severity in Eating Disorder Early Intervention Services in England. *Int J Eat Disord*. 2023;56(1):269–275. doi:10.1002/eat.23836
88. Davey E, Allen K, Bennett SD, et al. Improving programme-led and focused interventions for eating disorders: an experts' consensus statement —A UK perspective. *Eur Eat Disord Rev*. 2023;31(5):577–595. doi:10.1002/erv.2981
89. Wade TD, Johnson C, Cadman K, Cook L. Turning eating disorders screening in primary practice into treatment: a clinical practice approach. *Int J Eat Disord*. 2022;55(9):1259–1263. doi:10.1002/eat.23732
90. Gumz A, Weigel A, Wegscheider K, Romer G, Löwe B. The psychnet public health intervention for anorexia nervosa: a pre-post-evaluation study in a female patient sample. *Prim Health Care Res Dev*. 2018;19(1):42–52. doi:10.1017/S1463423617000524
91. Viljoen D, King E, Harris S, et al. The alarms should no longer be ignored: survey of the demand, capacity and provision of adult community eating disorder services in England and Scotland before COVID-19. *BJPsych Bull*. 2023;1–9. doi:10.1192/bjb.2023.57
92. Mitchell AJ, Selmes T. A comparative survey of missed initial and follow-up appointments to psychiatric specialties in the United Kingdom. *Psychiatr Serv Wash DC*. 2007;58(6):868–871. doi:10.1176/ps.2007.58.6.868
93. Leavey G, Vallianatou C, Johnson-Sabine E, Rae S, Gunpath V. Psychosocial Barriers to Engagement With an Eating Disorder Service: a Qualitative Analysis of Failure to Attend. *Eat Disord*. 2011;56.
94. Bech M. The economics of non-attendance and the expected effect of charging a fine on non-attendees. *Health Policy*. 2005;74(2):181–191. doi:10.1016/j.healthpol.2005.01.001
95. Tatham M, Stringer H, Perera S, Waller G. "Do you still want to be seen?": the pros and cons of active waiting list management. *Int J Eat Disord*. 2012;45(1):57–62. doi:10.1002/eat.20920
96. Bell L, Newns K. What factors influence failure to engage in a supervised self-help programme for bulimia nervosa and binge eating disorder? *Eur Eat Disord Rev*. 2004;12(3):178–183. doi:10.1002/erv.554
97. Guy R, Hocking J, Wand H, Stott S, Ali H, Kaldor J. How Effective Are Short Message Service Reminders at Increasing Clinic Attendance? A Meta-Analysis and Systematic Review. *Health Serv Res*. 2012;47(2):614–632. doi:10.1111/j.1475-6773.2011.01342.x
98. Jenkins PE. Reducing Non-Attendance Rates for Assessment at an Eating Disorders Service: a Quality Improvement Initiative. *Community Mental Health Journal*. 2017;53(7):878–882. doi:10.1007/s10597-017-0118-7
99. Jenkins PE, Turner H, Morton L. Active Waiting List Management: potential Usefulness in a Community Eating Disorders Service. *Eating Disorders*. 2014;22(1):72–81. doi:10.1080/10640266.2014.857523
100. Fursland A, Erceg-Hurn DM, Byrne SM, McEvoy PM. A single session assessment and psychoeducational intervention for eating disorders: impact on treatment waitlists and eating disorder symptoms. *Int J Eat Disord*. 2018;51(12):1373–1377. doi:10.1002/eat.22983



101. Allen K Guided self-help for recent onset binge/purge eating disorders: use and outcomes in the FREED Network South London and Maudsley NHS Foundation Trust. Poster presented at: British Association for Behavioural and Cognitive Psychotherapies; 2023.
102. Schmidt U, Lee S, Beecham J, et al. A randomized controlled trial of family therapy and cognitive behavior therapy guided self-care for adolescents with bulimia nervosa and related disorders. *Am J Psychiatry*. 2007;164(4):591–598. doi:10.1176/ajp.2007.164.4.591
103. Clinton D, Almlöf L, Lindström S, Manneberg M, Vestin L. Drop-In Access to Specialist Services for Eating Disorders: a Qualitative Study of Patient Experiences. *Eating Disorders*. 2014;22(4):279–291. doi:10.1080/10640266.2014.912553
104. Eating Difficulties. England and Wales: student Minds. Available from: <https://www.studentminds.org.uk/eatingdifficulties.html>. Accessed August 23, 2023.
105. Online support groups. UK eating disorder charity, Beat. Available from: <https://www.beateatingdisorders.org.uk/get-information-and-support/get-help-for-myself/i-need-support-now/online-support-groups/>. Accessed August 23, 2023.
106. House ET, Lister NB, Seidler AL, et al. Identifying eating disorders in adolescents and adults with overweight or obesity: a systematic review of screening questionnaires. *Int J Eat Disord*. 2022;55(9):1171–1193. doi:10.1002/eat.23769
107. Schmidt U, Sharpe H, Bartholdy S, et al. Treatment of Anorexia Nervosa: a Multimethod Investigation Translating Experimental Neuroscience into Clinical Practice. NIHR Journals Library; 2017. Accessed August 24, 2023. <http://www.ncbi.nlm.nih.gov/books/NBK448393/>.
108. Eisler I, Simic M, Fonagy P, Bryant-Waugh R. Implementing service transformation for children and adolescents with eating disorders across England: the theory, politics, and pragmatics of large-scale service reform. *J Eat Disord*. 2022;10:146. doi:10.1186/s40337-022-00665-z
109. NHS Mental Health Implementation Plan 2019/20 – 2023/24. NHS; 2019. Available from: <https://www.england.nhs.uk/publication/nhs-mental-health-implementation-plan-2019-20-2023-24/>. Accessed September 1, 2023.
110. Lockertsen V, Nilsen L, Holm LAW, Rø Ø, Burger LM, Rössberg JI. Mental health professionals' experiences transitioning patients with anorexia nervosa from child/adolescent to adult mental health services: a qualitative study. *BMC Health Serv Res*. 2020;20(1):891. doi:10.1186/s12913-020-05740-2
111. Position statement on early intervention for eating disorders. Royal College of Psychiatrists; 2019. Available from: [https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/position-statements/ps03\\_19.pdf?sfvrsn=b1283556\\_2](https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/position-statements/ps03_19.pdf?sfvrsn=b1283556_2). Accessed August 23, 2023.
112. Hoge M, Morris J, Daniels A, Stuart G, Huey L, Adams N. *An Action Plan for Behavioral Health Workforce Development*. Cincinnati, OH: Annapolis Coalition on the Behavioral Health Workforce; 2007.
113. Wade TD, Keski-Rahkonen A, Hudson JI. *Epidemiology of Eating Disorders Textbook of Psychiatric Epidemiology*. 3 ed. Chichester, UK: John Wiley & Sons, Ltd; 2011:343–360.
114. Health Resources and Service Administration. Health professional shortage areas: mental health; 2016. Available from: [https://datawarehouse.hrsa.gov/ExportedMaps/HPSAs/HGDWMapGallery\\_BHPR\\_HPSAs\\_MH.pdf](https://datawarehouse.hrsa.gov/ExportedMaps/HPSAs/HGDWMapGallery_BHPR_HPSAs_MH.pdf). Accessed July 31, 2023.
115. Dalton B, Davies MR, Hutchings-Hay C, et al. Virtually delivered guided self-help for binge eating disorder and bulimia nervosa: findings from a service evaluation conducted during the COVID-19 pandemic. *Published Online February*. 2023;20. doi:10.31234/osf.io/xuyv8
116. Zandberg LJ, Wilson GT. Train-the-Trainer: implementation of Cognitive Behavioural Guided Self-Help for Recurrent Binge Eating in a Naturalistic Setting. *Eur Eat Disord Rev*. 2013;21(3):230–237. doi:10.1002/erv.2210
117. Karekla M, Nikolau P, Merwin RM. Randomized Clinical Trial Evaluating AcceptME—A Digital Gamified Acceptance and Commitment Early Intervention Program for Individuals at High Risk for Eating Disorders. *J Clin Med*. 2022;11(7):1775. doi:10.3390/jcm11071775
118. Bauer S, Bilić S, Ozer F, Moessner M. Dissemination of an Internet-Based Program for the Prevention and Early Intervention in Eating Disorders. *Z Kinder Jugendpsychiatr Psychother*. 2020;48(1):25–32. doi:10.1024/1422-4917/a000662
119. Bryant E, Koemel N, Martens J, Marks P, Hickie I, Maguire S. Mortality and mental health funding—do the dollars add up? Eating disorder research funding in Australia from 2009 to 2021: a portfolio analysis. *Lancet Reg Health – West Pac*. 2023. doi:10.1016/j.lanwpc.2023.100786
120. Breaking the cycle. An inquiry into eating disorder research funding in the UK; 2021. All-Party Parliamentary Group on Eating Disorders. Available from: [https://beat.contentfiles.net/media/documents/APPG\\_Research\\_Funding\\_inquiry\\_report.pdf](https://beat.contentfiles.net/media/documents/APPG_Research_Funding_inquiry_report.pdf). Accessed August 29, 2023.
121. Strategic Training Initiative for the Prevention of EDs. Harvard T.H. Chan; 2023. Available from: <https://www.hsph.harvard.edu/striped/introduction/#:~:text=The%20Strategic%20Training%20Initiative%20for%20the%20Prevention%20of,School%20of%20Public%20Health%20and%20Boston%20Children%E2%80%99s%20Hospital>. Accessed September 1, 2023.
122. Allison S, Wade T, Schmidt U, Treasure J, Bastiampillai T, Looi JC. Setting a youth-focused research agenda for eating disorders during the COVID-19 pandemic. *Aust N Z J Psychiatry*. 2022;56(6):591–593. doi:10.1177/00048674211054743
123. Vall E, Wade TD. Predictors of treatment outcome in individuals with eating disorders: a systematic review and meta-analysis. *Int J Eat Disord*. 2015;48(7):946–971. doi:10.1002/eat.22411
124. Hollis C, Falconer CJ, Martin JL, et al. Annual Research Review: digital health interventions for children and young people with mental health problems - a systematic and meta-review. *J Child Psychol Psychiatry*. 2017;58(4):474–503. doi:10.1111/jcpp.12663
125. Eisler I, Simic M, Hodsoll J, et al. A pragmatic randomised multi-centre trial of multifamily and single family therapy for adolescent anorexia nervosa. *BMC Psychiatry*. 2016;16(1):422. doi:10.1186/s12888-016-1129-6
126. Ayton A, Ibrahim A. Does UK medical education provide doctors with sufficient skills and knowledge to manage patients with eating disorders safely? *Postgrad Med J*. 2018;94(1113):374–380. doi:10.1136/postgradmedj-2018-135658
127. Ignoring the alarms: how NHS eating disorder services are failing patients. Parliamentary and Health Service Ombudsman. Available from: <https://www.ombudsman.org.uk/publications/ignoring-alarms-how-nhs-eating-disorder-services-are-failing-patients>. Accessed August 23, 2023.
128. Peat CM, Feltner C. Addressing eating disorders in primary care: understanding screening recommendations and opportunities to improve care. *Int J Eat Disord*. 2022;55(9):1202–1207. doi:10.1002/eat.23786
129. Adult IAPT workforce census report. NHS England Skipton House; 2016. Available from: <https://www.england.nhs.uk/mental-health/adults/nhs-talking-therapies/workforce/>. Accessed September 1, 2023.



## Adolescent Health, Medicine and Therapeutics

Dovepress

**Publish your work in this journal**

Adolescent Health, Medicine and Therapeutics is an international, peer-reviewed, open access journal focusing on health, pathology, and treatment issues specific to the adolescent age group. All aspects of health maintenance, preventative measures and disease treatment interventions are addressed within the journal and practitioners from all disciplines are invited to submit their work as well as healthcare researchers and patient support groups. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/adolescent-health-medicine-and-therapeutics-journal>