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Addressing Critical Gaps in the Treatment of Eating Disorders

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Abstract

Remarkable progress has been made in developing psychosocial interventions for eating disorders and other mental disorders. Two priorities in providing treatment consist of addressing the research-practice gap and the treatment gap. The research-practice gap pertains to the dissemination of evidence-based treatments from controlled settings to routine clinical care. Closing the gap between what is known about effective treatment and what is actually provided to patients who receive care is crucial in improving mental health care, particularly for conditions such as eating disorders. The treatment gap pertains to extending treatments in ways that will reach the large number of people in need of clinical care who currently receive nothing. Currently, in the United States (and worldwide), the vast majority of individuals in need of mental health services for eating disorders and other mental health problems do not receive treatment. This article discusses the approaches required to better ensure: 1) that more people who are receiving treatment obtain high-quality, evidence-based care, using such strategies as train-the-trainer, web-centered training, best-buy interventions, electronic support tools, higher-level support and policy; and 2) that a higher proportion of those who are currently underserved receive treatment, using such strategies as task shifting and disruptive innovations, including treatment delivery via telemedicine, the Internet, and mobile apps.

Keywords

research-practice gap; treatment gap; eating disorders

Eating disorders are associated with high medical and psychiatric comorbidity, poor quality of life, and high mortality.[1–3] Mortality from anorexia nervosa (AN) is the highest of all mental disorders, and eating disorders rank as the 12th leading cause of disability in young women in high-income nations.[4] The development and evaluation of evidence-based psychosocial interventions (EBPIs) for eating disorders and other psychiatric disorders are remarkable advances. EBPIs refer to interventions that have been evaluated in randomized controlled clinical trials, where treatments, client samples, and outcomes have been well specified, and where the effects have been replicated by an independent research team. A current priority is to disseminate—transmit information about a treatment (e.g., its nature,

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effectiveness, indications, characteristics)—from research to practice, and implement, or actually adopt and use, those treatments in routine clinical practice,[5] thus addressing the "research-practice gap." Extending interventions from research to practice is a critical step in the process of improving mental health care, but another crucial step is extending treatments in ways that will reach the large number of people in need of clinical care but who are not receiving services, which we will refer to here as addressing the "treatment gap." Disseminating EBPIs to clinical practice alone will not necessarily address this latter need. This paper discusses these critical gaps in the treatment of eating disorders, that is, the research-practice gap and the treatment gap, and the approaches that are needed to address them effectively.

Critical Gaps in Treatment

Research-Practice Gap

The research-practice gap refers to the discrepancy between what is known about effective treatment and what is actually provided to patients who receive care.[6] Among those who actually receive services for mental health problems, what do they receive? As part of the National Comorbidity Survey-Replication in the United States (US), over 9,000 individuals with psychiatric disorders answered questions about their treatment that included who the service provider was (e.g., psychiatrist, family physician, social worker, spiritual advisor, other) and the type of treatment they received (e.g., self-help group, medication, hospital admission).[7] Minimally adequate treatment was defined as receiving an intervention (e.g., medication, psychotherapy) that followed evidence-based guidelines for the specific disorder and included multiple contacts (rather than only one visit). For individuals with a psychiatric disorder, 21.5% received treatment from a mental health specialist; 41.7% received treatment if this is expanded to include contact with any health-care person, in addition to those trained in mental health. For those who did not meet full criteria for disorder (subclinical disorder), 4.4% received treatment from a mental health specialist and 10.1% received treatment if this is expanded to include any contact. Overall, across the entire sample, only 32.7% were classified as receiving at least minimally adequate treatment based on evidence-based treatment guidelines. This issue has been studied internationally as well. The World Health Organization (WHO)[8] provided extensive data on mental disorder treatment receipt from surveys of over 60,000 adults in 14 countries in the Americas, Europe, the Middle East, Africa, and Asia. The proportion of respondents who received treatment for emotional or substance-use disorders during the previous 12 months ranged from a low of 0.8% (Nigeria) to a high of 15.3% (US)—percentages refer to those who received treatment among those in need. "Receiving services" was based on asking respondents if they ever saw anyone from a long list of caregivers as an outpatient or inpatient for problems with emotions, nerves, mental health, or use of alcohol or drugs. Included were mental health professionals (e.g., psychiatrist, psychologist), general medical or other professionals (e.g., general practitioner, occupational therapist), religious counselors (e.g., minister, sheikh), and traditional healers (e.g., herbalist, spiritualist). The precise service provided by these individuals was not identified and the duration of the intervention was not specified, but receiving services required at least one contact. Thus when we say that 15% of individuals in the US with any type of mental health disorder received treatment,

information is ambiguous and could be one contact with someone who has had no training in mental health.

There is worrisome evidence that access to EBPIs is actually diminishing. Based on service use data from two representative surveys of the US general population in 1998 (N = 22,953) and 2007 (N = 29,370), spending on psychotherapy declined by more than a third, from $12.74 billion in 1998 to $8.35 billion in 2007 (for ease of interpretation, these amounts are in current dollars, as of 2016); in contrast, the use of patients receiving psychotropic medication only increased from 44.1% to 57.4%.[9] Importantly, it is not known the extent to which the treatments delivered were EBPIs but tempting to speculate that it might be a small proportion.[10] Also there is the issue that the programs training the major providers of psychotherapy (i.e., psychiatrists, psychologists, social workers) are generally not providing competency-based instruction in EBPIs; although programs may provide exposure to EBPIs, few programs require the acquisition of competence through both a didactic and clinical supervision.[11,12] Notably, the most recent American Psychological Association Standards of Accreditation, which go into effect in 2017, mandate some training in EBPIs (e.g., "must demonstrate a fundamental understanding of and competency in…evidence-based professional practice"),[13] but it is unknown how this will be enforced, and further, how to do competency-based training has yet to be fully delineated. Also, this only affects accredited psychology training programs, and there are far more practitioners who are not psychologists as well as many who come from unaccredited programs for which these standards would not apply.

Likewise, when individuals with eating disorders receive care, more often than not, it is not an EBPI.[14–16] The number of eating disorder specialist clinicians who report adhering to evidence-based protocols is between 6 and 35%, with far more clinicians reporting using an eclectic mix of techniques derived from EBPIs and some techniques that are not even supported at that level.[17] Even when clinicians say that they are using an EBPI for eating disorders, such as cognitive-behavioral therapy (CBT) or family-based treatment (FBT), they often omit key elements of those approaches.[18,19]

There are a number of reasons to believe that translation from research to practice and dissemination of EBPIs in the field of eating disorders is warranted. First, it has been reliably demonstrated that there is specificity of effects for specialist psychological treatments for eating disorders. For example, 5 months of enhanced cognitive-behavioral therapy (CBT-E) has been shown to be markedly superior to 2 years of psychoanalytic psychotherapy for bulimia nervosa (BN),[20] standing in stark contrast to the widespread claim that there are no differences in outcomes between psychological treatments and that they all work through common or non-specific processes.[21] This study provides strong support for the specificity of a key EBPI for BN, and per Hollon and Wilson,[22] provides one of the clearest examples of the superiority of one well-implemented psychological treatment over another. Many other randomized controlled trials demonstrate specificity of effects for other psychological treatments for eating disorders as well.[23,24] Furthermore, pharmacological treatments for eating disorders have reliably shown small to moderate effects, whereas evidence-based psychological treatments have reliably demonstrated large

effects and combining medication with psychotherapy interventions fails to significantly enhance outcomes.[25–27]

Second, data suggest that EBPIs are superior to TAU for eating disorders. For instance, CBT guided self-help (CBTgsh), delivered in 8 sessions in a health maintenance organization setting, resulted in greater abstinence from binge eating at 6- and 12-month follow-ups than TAU offered within the health plan among individuals with binge-type eating disorders.[28] Furthermore, CBTgsh was also found to be more cost-effective, due to reduced use of TAU services in that group, resulting in lower net costs for the CBTgsh group despite the additional cost of CBTgsh itself.[29] For adolescents with AN, FBT has been compared to standardized versions of the "usual" treatments offered in the community, including psychodynamic individual therapy, non-specific individual therapy, and systemic family therapy, and has consistently been demonstrated to be superior.[24]

Finally, there appears to be indication of an association between therapist competence and outcome, suggesting that implementing a treatment better has value and setting up the need for further training in EBPIs. Although these studies are not eating disorder-specific, they are suggestive. For example, among patients with depression receiving cognitive therapy, competence predicted session-to-session symptom change early in treatment and also predicted evaluator-rated end-of-treatment depressive symptom severity.[30] Likewise, competence has been found to be significantly associated with outcome for patients with anxiety disorders receiving CBT,[31,32] accounting for 48% of the variance in outcome in one study.[32] Even amongst work that has not found a general competence-outcome association, relations between these constructs are suggested. For example, the relationship between competence and patient outcome with CBT was investigated among 43 therapists treating 1247 patients over the period of one year in England.[33] Results found little support of a general association between CBT competence and patient outcome. However, significantly more patients of the most competent therapists demonstrated a reliable improvement in their symptoms of anxiety than would be expected by chance alone, and fewer experienced no reliable change. Likewise, significantly more patients treated by the least competent therapists experienced a reliable deterioration in their anxiety symptoms than would be expected.[33] Taken together, these lines of study—the demonstrated specificity of effects for specialist psychological treatments for eating disorders, the superiority of EBPIs over TAU for eating disorders, and the competence-outcome association—indicate that translation from research to practice in the field of eating disorders is clearly warranted.

Treatment Gap

The treatment gap refers to the difference in the proportion of people who have disorders or a particular disorder (prevalence) and the proportion of those individuals who actually receive care.[34,35] In the US, millions of children, adolescents, and adults experience eating disorders and other significant mental health problems and receive no help whatsoever. Based on results of the National Comorbidity Survey-Replication, lifetime prevalence estimates of AN, BN, binge eating disorder (BED), subthreshold BED, and any binge eating in the US are 0.6%, 1.0%, 2.8%, 1.2%, and 4.5%.[36] From a US population of approximately 300 million when this study was published,[37] this translates to 30 million people being

affected, and likely even more if we consider the US population growth since that time.[38] In terms of mental disorders more generally, based on results of the National Comorbidity Survey and its Replication, 26% of the US population meet criteria for a psychiatric disorder within the past 12 months,[39,40] and 46% of the US population have met criteria for a psychiatric disorder at some point in their lives.[41] For ease of computation, consider that approximately 25% of the US population experience a psychiatric disorder during a given year and 50% in their lifetime. This translates to 75 million and 150 million people, respectively, using the US population of 300 million from the time period when these studies were published. Remarkably, these may even be conservative estimates, as some disorders (e.g., schizophrenia) as well as subclinical disorders often are omitted from prevalence surveys. Separate lines of research have addressed the extent to which individuals in need of services actually receive them. In the US, approximately 70% in need of services do not receive any services,[42] with the problem of access to care being even worse for certain groups. For example, racial/ethnic minority groups (e.g., African American, Hispanic, Native American) have much less access to care for mental disorders than do European Americans.[43] African Americans are less likely to have access to services than are European Americans (12.5 vs. 25.4%), and Hispanic Americans are less likely to have adequate care than are European Americans (10.7 vs. 22.7%).[44] Internationally, as many as 97% or more of those with severe mental health disorders go untreated in some countries.[45]

The statistics regarding receipt of any treatment for eating disorders are equally dire—in the National Comorbidity Survey-Replication, only 16% of individuals with BN and 29% of individuals with BED had received treatment for emotional problems in the past 12 months.[36] Similarly, less than 20% of college students with eating disorders report receiving treatment.[46] There is a paradox such that few individuals with an eating disorder receive treatment specifically for the eating disorder, yet these individuals are actually more likely to receive treatment and incur higher health services use costs than individuals who do not have an eating disorder.[47] Furthermore, individuals from racial/ethnic minority backgrounds with eating disorders are significantly less likely than their White counterparts to be diagnosed with an eating disorder, receive care or a referral for further evaluation, or to even be asked by a doctor about eating disorder symptoms.[48–50] The lack of available services for most people and systematic disparities in accessibility of services underlie the importance of delivering services in ways that can reach many more people as well as target special groups.

Barriers to mental health care.—Many impediments or barriers stand in the way of people receiving mental health interventions[51–53] and thus perpetuate the treatment gap. To begin, receiving services for psychological dysfunction encompasses multiple steps that include experiencing symptoms or some form of dysfunction, identifying those as symptoms or something in need of help, deciding whether action is needed to do something about the symptoms, identifying the options for intervention (e.g., a psychosocial “treatment” or something else), seeking and actually obtaining treatment if that is the option selected, beginning the treatment, and remaining in treatment as needed, and with recurrent disorders traversing the process or abbreviated variants again. These seem like a natural flow of steps, and once one started, the rest of the steps would unfold. Actually, multiple obstacles at each of steps can impede or prevent the individual from moving forward and receiving care.[54] For

example, many people (approximately one third of individuals in a survey of six countries) believe professional mental health care is worse than or equal to no help at all for mental disorders.[55] Even when the process does unfold, remarkable delays occur. In fact, almost half of individuals with eating disorders will wait over a year after recognizing symptoms before *seeking* treatment.[56] This delay is often longer for BED, perhaps due to a lack of awareness of this disorder, in comparison to AN and BN, which tend to be acted upon earlier. Furthermore, those surveyed report a lag time of fifteen months between identifying symptoms and *starting* treatment, oftentimes due to long wait times.[56]

Several other specific barriers impede seeking and obtaining mental health services generally and specific to eating disorders.[51–53,57] Although their elaboration is beyond the goals of the present article, they are important to mention in the context of understanding and addressing the treatment gap. They include: cost of mental health services (including not only copayments or full payment for services but also indirect costs, such as time spent in session and payment to babysitter); policy and legal constraints (e.g., restrictions on which conditions are reimbursed); stigma; mental health literacy; cultural and ethnic influences; general issues in case identification (i.e., not identifying individuals at risk early in their course toward dysfunction); and especially relevant in relation to eating disorders, denial of the illness or low motivation to change.

These barriers may result from system factors, attitudinal factors, or both. For example cultural and ethnic influences may result from less access to services due to systemic issues, such as reduced number of providers in close proximity to ethnic minority clients, as well as from biases on the part of the provider who may believe eating disorders are uncommon in ethnic minority groups and thus fail to detect an eating disorder in a minority client. It should also be noted that a majority of individuals who receive treatment for an eating disorder are first seen by their primary care physician,[58,59] and thus if primary care providers are not trained to identify eating disorders, many cases will be missed. Indeed, one study indicated that 92% of frontline medical providers (e.g., general practice physicians and nurse practitioners) believed they had missed an eating disorder diagnosis,[60] highlighting the need for training in disorder identification as a means to increase access to care. Furthermore, many individuals who meet criteria for an eating disorder do not seek treatment given the ego-syntonic nature of their disorder or a general lack of motivation to change. It is possible that more attractive or convenient treatment delivery formats might spur some of these individuals to seek treatment when they otherwise might not have, but these issues (i.e., ego-syntonic nature, low motivation) will likely always contribute as barriers to treatment seeking in this population.

Dominant model of treatment delivery.—Another critical barrier in mental disorders in general and eating disorders specifically[14] is the dominant model of treatment delivery, i.e., the most frequent way psychological interventions are provided to individuals who seek treatment. For purposes of this discussion, it is critical to distinguish a treatment technique from its delivery format. For example, in the context of physical health care, some vaccines (the intervention) can be provided by injection, nasal spray, orally, or needle-free patch. In the context of mental health care, so too can we distinguish the intervention (e.g., CBT) from the models of delivery (e.g., by a live therapist, smartphone “app,” or the Web).

In relation to various forms of traditional, cognitive-behavioral, and other therapies, the dominant model of delivery has three interrelated characteristics: 1) treatment sessions are provided in person and one-to-one with a client (individual, couple, family); 2) treatment is administered by a highly trained (e.g., Master's or doctoral level) mental health professional; and 3) sessions are held at a clinic, private office, or health-care facility. Currently in the US, the vast majority of psychosocial treatments are administered using the dominant model. This model applies to EBPIs as well as the much larger number of interventions yet to be evaluated empirically including TAU, or practices that are routinely used in a clinical service.

Limitations of the dominant model in reaching people.—The dominant model may limit the degree to which treatment can be extended to reach many individuals in need. Meeting with a mental health professional individually in treatment conveys the constraints of the model. To begin, there are many mental health professionals but not enough to meet the demands using the dominant model. The estimated number of mental health professionals in the US who provide services is approximately 700,000,[61] which may be an underestimate given the range of providers not usually counted, including other professionals (e.g., pastoral counselors) and individuals with various titles (e.g., personal coaches, healers). Even so, it is difficult to envision that the number could help sufficiently if 25% of the US population in any given year meets criteria for a psychiatric disorder leaving aside those with subclinical disorders, or that there are enough professionals trained in eating disorders to serve up to 30 million people in the US who will have a clinically significant eating disorder at some point in their lives.[62]

An initial reaction might be to claim that it is not the model of delivery that is the problem but the fact that we just need more trained mental health professionals who can provide treatment. Having more mental health professionals might be valuable but cannot be expected by itself to be able to reach the vast numbers of people in need of care who are receiving none whatsoever, given the geographical distribution, interests, and composition of the professional workforce. First, in the US, mental health professionals are concentrated in highly populated, affluent urban areas and in cities with major universities.[63] All of the states in the US include rural areas where the concentration of people to square miles of land is low.[64] For these areas and small towns more generally, very few and more commonly no mental health professionals may be available, and it is even less likely that any providers with training in eating disorders will be available.

Second, the majority of mental health professionals do not provide care to populations and clinical problems for which there is an especially great demand (children and the elderly, individuals of minority groups, special populations in need such as victims of violence, single-mothers, individuals of lower income). For example, most psychiatric disorders have their onset in childhood and adolescence, including eating disorders,[65–67] but most individuals in the mental health professions are trained in the treatment of adults. Children's access to evidence-based mental health treatment is an urgent matter in its own right.[68]

Finally, disproportionately few mental health professionals reflect the cultural and ethnic characteristics of those in need of care. Indeed, eating disorders have been found to affect

individuals across all racial and ethnic groups.[49,69] Individuals do not necessarily have to be treated by persons of the same racial/ethnic and cultural group with which they identify. Yet entering into treatment, forming an alliance, being able to communicate in one's primary language, and having a shared view of psychological problems can all depend on having a match between therapist and patient in relation to race/ethnicity and culture. A mismatch of race/ethnicity and culture between prospective client and therapist at minimum adds another obstacle for receiving services. A mismatch can have (but does not invariably have) a variety of deleterious influences including not remaining in treatment, less quality of the alliance, and less therapeutic change.[70,71] In one review, when there was an ethnic adaptation to treatment, treatment was much more effective than when not in the native language of the client or not ethnically adapted in some way (e.g., 2 – 4x more as measured by effect size).[72] In short, having poor ethnic and cultural representation among mental health professionals who can provide services maintains and fosters huge disparities among groups and obstacles for entering treatment.

For the above reasons, expanding the workforce to deliver treatment with the usual, in-person, one-to-one model of care, with a trained mental health professional is likely not enough to have major impact on reaching the vast number of people in need of services for mental disorders in general and eating disorders specifically. What is being offered to those who have access to the dominant model can certainly be improved in terms of its quality, but this will not be enough to reach the large number of individuals who are currently not receiving any treatment whatsoever. The increased person power may not provide treatments where they are needed, for the problems that are needed, and attract the cultural and ethnic mix of clientele that are essential. Professional organizations and funding agencies that provide support for trainees can incentivize professional development in areas of need (e.g., training in rural psychology, mental health services for special groups), but the problem is that increasing more of what we are doing now in relation to the dominant model of delivery will not suffice in closing the treatment gap.

Another feature of the dominant model raises similar concerns in reaching individuals in need. Requiring clients to go to a special setting (e.g., clinic, private office) is a constraint, too. Settings where services are provided are not readily available for most individuals, and "going" to a setting raises a host of other barriers that are both system issues (e.g., transportation) and attitudinal issues (e.g., stigma).

Addressing Critical Gaps in Treatment

In order to address these critical gaps in treatment, we must: 1) ensure that more people who are receiving treatment obtain high-quality, evidence-based care; and 2) reach the large number of individuals who are unserved by current treatments. For example, in eating disorders, about 20% or less of those afflicted report receiving treatment.[46] Consider the analogy of an iceberg and that those 20% are above the surface of the water. We certainly want to improve the quality of services received by those 20%, but it also important to make some type of treatment available for the 80% below the surface of the water who are currently receiving nothing whatsoever (see Figure 1). See Table 1 for an overview of novel models used to address both of these issues.

Models to Address the Research-Practice Gap

The first set of approaches addresses the research-practice gap and involves ensuring that more people who are treated receive high-quality, EBPI care. The past decades have seen the development and evaluation of empirically-supported psychological therapies in rigorous, randomized controlled efficacy studies.[73] There is substantial evidence that patients are not receiving these treatments in routine clinical care.[10,74] Even when patients do receive these treatments, they are often not competently delivered.[75] This failing has been highlighted by the past director of the National Institute of Mental Health (NIMH): "We have powerful, empirically-supported psychosocial interventions, but they are not widely available…A serious deficit exists in training for empirically supported psychosocial interventions. Translational research will need to focus not only on 'bench to bedside' but also on 'bedside to practice."[76] We highlight a number of novel models that can be used for the dissemination of EBPIs.

Train-the-Trainer.—Current approaches to training therapists to conduct new treatments typically consist of a one or two day workshop delivered by an expert and provision of a manual for the therapy in question.[74] Reviews have concluded that while workshops increase therapists' knowledge, their impact on skills may be short-lived without further consultation.[77] Alternatively, there is a strong theoretical case for the "train-the-trainer" approach, which is based on the principles of social cognitive theory,[78] and features active learning via modeling, feedback on performance, building self-efficacy, and supportive interactions among therapists developing skills in a given treatment. This train-the-trainer approach centers around development of an internal coach and champion, and has been recommended as the most effective means of changing actual therapist behaviors rather than just attitudes and self-reported proficiency.[74] Train-the-trainer models have been used to train community mental health center staff in evidence-based treatments by providing expert training to a single member of the staff who then trains the rest of the staff and serves as an internal coach and champion[79,80] and to bring evidence-based treatment for trauma-spectrum disorders to resource-poor countries.[81] Relevant to the field of eating disorders, there is preliminary support for the usefulness and acceptability of the train-the-trainer method for CBTgsh for eating disorders,[82] and in the field of eating disorder prevention, a pilot effectiveness trial showed support for a train-the-trainer model for implementation of the Body Project, an in-person, cognitive-dissonance-based prevention program.[83] Furthermore, Wilfley, Wilson, and Agras[84,85] are currently testing the effectiveness of a train-the-trainer approach to training college counselors in interpersonal psychotherapy (IPT) for the treatment of eating disorders. College student counseling centers are an optimal setting in which to study the implementation of evidence-based treatment for eating disorders. These disorders typically begin in adolescence and the young adult years,[65–67] and they constitute one of the most common mental health problems seen by college counseling centers/health services.[86] In this study, several reasons dictated the choice of IPT: 1) readily acceptable to therapists and clients[87,88]; 2) hypothesized to result in high rates of adoption because it is perceived as similar to the type of psychotherapy many therapists in student counseling centers provide; 3) IPT, with its focus on interpersonal issues, is particularly appropriate for a population of young adults, especially females[89,90]; 4) broadly applicable to a wide range of clients with an eating disorder[90]; and 5) IPT may have broader

therapeutic effects than just those on eating disorders.[91–93] Thus, in this study, careful attention was given to setting and treatment type so as to maximize implementation success and sustainability. Just as sustainability of individual treatment effects is an important outcome in efficacy trials (e.g., whether a given treatment is associated with not only short-term but also long-term impact on disorder remission), sustainability is a key outcome that needs to be considered in implementation studies as well.

Web-Centered Training.—Standard methods for training and supervision require substantial time and resources, and while the train-the-trainer approach decreases the time and resources required relative to standard training, additional scalable, low-cost methods for training and ongoing supervision are needed to increase the number of clinicians trained to deliver high-quality care for eating disorders and other problems. Web-centered training may be such a solution that has several key advantages[94]: 1) training can be offered to geographically dispersed trainees using minimal person-based resources; 2) the website can be accessed anytime and anywhere to effectively accommodate clinicians' busy schedules; 3) it enables trainees to repeatedly review and reference material, which will reinforce learning; 4) the process of training to fidelity can be customized to the trainee through quizzes, feedback, and refresher courses, which may prevent clinician "drift" and enhance sustainability of skills in the treatment[15,95]; 5) the website can be updated regularly, facilitating incorporation of new information; and 6) data collection on website usage can provide valuable information on the most accessed program features, informing program refinement. A comprehensive platform for training in CBT-E has been developed, with testing underway.[96] Likewise, a comprehensive online training program and telephone-based simulation assessment for training in IPT has been developed, with testing currently in progress.[97] Important to keep in mind is that multi-component trainings have most consistently demonstrated positive training outcomes relative to other training methods—studies evaluating the utility of reading, self-directed trainings, and workshops have shown that these methods do not routinely produce positive outcomes and that workshop follow-ups (e.g., including observation, feedback, consultation, and/or coaching) are essential for sustaining outcomes.[77] As such, in order to improve the likelihood of changing therapist behaviors, alternative training delivery models must include active learning and follow-up, including consultation or coaching.[74,77] With the IPT training platform, telephone simulation is being used as a more scalable method for ensuring active learning, follow-up, and clinician competence; this approach is easily accessible, standardized across trainees, and provides the ability to practice "without risk" to patients.[98,99] Promising research suggests that simulation could be used for evaluating clinician training outcomes and for enhancing learning, and in the field of medicine, simulations are rated positively by students and educators.[100]

Best-Buy Interventions.—Best buy refers to an intervention for which, "there is compelling evidence that is not only highly cost effective, but is also feasible, low-cost (affordable), and appropriate to implement within the constraints of a local health system"(p. 2).[101] Best buy also considers features such as appropriateness for the setting (e.g., culture, resources), capacity of the health system to deliver a given intervention to the targeted

population, technical complexity of the intervention (e.g., level of training that might be required), and acceptability based on cultural, religious, and social norms.

Identifying best buys was conceived as an economic tool to help countries evaluate how to achieve a given amount of change, given the number of eligible individuals in need of the intervention, the potential savings of those changes, and the cost differences of alternative strategies.[102–104] For example, in one analysis, four criteria (health impact, cost-effectiveness, cost of implementation, and feasibility of scaling up) were used to identify best-buy interventions that would have significant public health impact on noncommunicable diseases including cardiovascular disease, cancers, diabetes, and chronic lung disease.[101] Best buys for cardiovascular disease and diabetes were counseling, multi-drug therapy, and aspirin. These were selected in light of the reduction of disease burden and very low cost. The example is not necessarily one that applies to all locales. The best-buy interventions can differ for a given disorder and country in light of variation in the health-care resources, infrastructure, and distribution of the population (e.g., very sparsely populated areas). More explicit designations of best buys have been identified for select mental disorders. For example, for clinical depression, generically produced antidepressant medication, brief psychotherapy, and treating depression in primary care qualified as best buys.[102] For psychoses, treating people with antipsychotic drugs and with psychosocial support are regarded as best buys.

When selecting an evidence-based treatment to disseminate, for example, using the train-the-trainer approach, web-centered training, or more traditional approaches, selection criteria should include: efficacy (i.e., short and long-term effects); cost-effectiveness; clinical range (transdiagnostic); ease of training and learning; and mode of treatment delivery (e.g., with limited external input and by therapists with minimal training vs. lengthy treatments that require a high level of professional input and expertise).[15] Such a treatment would be considered a best-buy intervention. In particular, transdiagnostic treatments help solve the "too many empirically supported treatments problem"[105](p. 58) and have the advantage of having greater clinical range and thus more practicality, which may enhance adoption by therapists.[106] In that sense, IPT might be considered a best-buy intervention given, as previously mentioned, the ability of this intervention to not only address eating disorders but also a variety of other problems, including depression, anxiety, and post-traumatic stress disorder.[91–93] Although it is acknowledged that IPT may work more slowly than CBT for BN,[107,108] when considering treatment options for a health care delivery system (that needs to treat psychiatric disorders beyond just eating disorders), IPT should be regarded as a best buy because it can be used for a large client base in contrast to other EBPIs that may work for only one type of problem. Likewise, CBT-E is a transdiagnostic treatment for eating disorders and has the ability to address eating disorders across the diagnostic spectrum.[109] Cost-effectiveness is also a key consideration in defining a best buy. For this reason, FBT should be considered a best buy given the fact that it is cost saving in comparison to weight restoration via inpatient hospitalization.[110] Likewise, CBTgsh is an effective treatment for binge-type eating disorders that has the advantage of being very easy to learn and deliver, even by relatively inexperienced practitioners, making it very cost-effective.

Electronic Support Tools.—Electronic support tools for clinicians have the potential to enhance quality of care as well. Checklists can help the clinician ensure that important topics and points are covered when caring for patients and can also aid in decision-making. For instance, a clinical decision support tool to help clinicians deliver smoking cessation treatment, which prompts clinicians to ask patients specific questions, has preliminary support for its feasibility and acceptability in clinical care.[111] Furthermore, *Recovery Record,* a direct-to-consumer mobile app that has been downloaded more than 100,000 times over two years, can be used by individuals with eating disorders to self-monitor meals, emotions, behaviors, and thoughts and share this information with their therapist.[112] Such an app may increase adherence to self-monitoring, given the greater convenience of the app vs. paper-and-pencil format, and thus may ultimately enhance the effectiveness of treatment.

Higher-Level Support and Policy.—For access to evidence-based care to dramatically increase, higher-level support is required. One excellent example of this approach comes from a development in England called Improving Access to Psychological Therapies (IAPT), a systematic way of organizing the delivery of evidence-based psychological treatment, according to the National Institute for Health and Care Excellence (NICE) guidelines, within England's National Health Service. It aims to provide, in every part of the country, teams of well-trained therapists working under expert supervision. The progress of each patient is measured every session, which not only provides the patient and therapist valuable information on symptom improvement but also provides information to the funders of IAPT (National Health Service) on whether they are getting their money's worth. IAPT is a system, and it involves a team of people with different skills who are able to handle the range of problems that patients may enter treatment with, including offering treatments with different levels of intensity based on severity of presenting problems. IAPT started in late 2008, and by 2013, it had trained more than 3,600 therapists in CBT and was treating over 400,000 people per year, nearly half of whom recovered by the end of treatment.[113] The National Health Service, in partnership with the National Collaborating Centre for Mental Health in England, released a commissioning guide in 2015 that introduces access and wait time standards for eating disorders, detailing that those referred for treatment for an eating disorder should receive NICE-concordant treatment within four weeks for routine cases and within one week for urgent cases.[114] At the same time, the government announced an additional £30 million funding a year (starting in 2015 and recurrent for five years) to support the development of such services, which will be delivered within the IAPT framework and will promote access to evidence-based, outcome-focused treatment.[115]

In the US, the Veterans Health Administration (VHA), which operates the largest integrated healthcare system in the nation, is actively implementing a national initiative to disseminate and implement EBPIs. As an integrated system, VHA establishes its own policies and services and funds the care delivered by the system. The initiative includes: policy (i.e., national requirements for EBPI availability in VHA); staff training and support (e.g., competency-based staff training programs, longer-term consultation support including "virtual office hours" and local peer consultation); local clinical infrastructures and buy-in (e.g., local EBPI coordinators, quantitative assessment of impact of EBPIs, including effectiveness, acceptability, and service/cost offset); clinical implementation strategies (e.g.,

patient informed choice, assessing and enhancing the therapeutic relationship, case conceptualization and goals-based approach); and accountability (e.g., EBPI training program evaluation, including therapist- and patient-level outcomes).[116] IAPT and the VHA model are initiatives that involve centralized control of money from the top and their implementation is mandated. Such programs have a much greater likelihood of success in actually changing therapist behavior relative to relying on individual therapists to voluntarily receive training and modify their behavior. Indeed, policy shapes behavior. Furthermore, programs such as these ensure not only improved access to treatment but also improved access to treatment that we know actually works.

Models to Address the Treatment Gap

The second set of approaches addresses the treatment gap and reaching individuals who are unserved by current treatments. Typically, as we develop treatments, we begin with a focus on a clinical disorder, a model of how that disorder may come about, how treatment can address key components of the disorder, and what we might draw from the human and nonhuman animal research in the way of principles or techniques. We then begin tests of treatment. For example, if one considers CBT, IPT, or FBT for eating disorders, many of these steps have been critical for developing these interventions. The viability of this model needs no more proof than the successes of these and many other EBPIs for eating and other disorders. However, to address the “bottom of the iceberg” problem, we need to expand the focus in how we develop the interventions or at least considerations to which we attend from the outset. Consider the goal or target as reaching a large number of individuals who are unserved by current treatments. We begin with the question: What are key characteristics we would want of treatments and models of delivery to achieve that goal? Table 2 lists several characteristics that might guide our development of treatment and focus our attention on delivery. There is no need for a single model to meet all or even most of these characteristics or to address all of the barriers to treatment discussed previously; rather, multiple models are likely to be needed to reach people in different contexts.

Multiple models have emerged from global health care, business, economics, and the media —all well outside of traditional psychological and psychiatric care.[117,118] We highlight a number of examples below to convey different ways in which treatments can reach large numbers of individuals and in which key characteristics noted in Table 2 and different barriers to care can be addressed.

Task Shifting.—Task shifting is a method to strengthen and expand the health-care work force by redistributing the tasks of delivering services to a broad range of individuals with less training and fewer qualifications than traditional workers.[119] This redistribution allows an increase in the total number of health workers (e.g., nonprofessionals, lay individuals) to scale up the scope of providing services. The concept and practice of task shifting are not new and currently are in place in many developed countries (e.g., Australia, England, US) where nurses, nurse assistants, and pharmacologists provide services once reserved for doctors. Task shifting emerged from global health initiatives, particularly in developing countries (e.g., Ethiopia, Haiti, Malawi, and Namibia). These initiatives focused on treating and preventing infectious (e.g., malaria, HIV/AIDS, tuberculosis) and noncommunicable

disease (e.g., cardiovascular disease, diabetes, cancer, respiratory disease) and improving living conditions and education.[101,120–122] These initiatives provide an important context because they contended with key challenges of meeting health-care needs in many cultures, under a variety of conditions (e.g., enormous resource constraints, geographical obstacles), and where people in need of services were not receiving them. Empirical evaluations have shown task shifting to rapidly increase access to services, reach large numbers of individuals in need, yield good health outcomes, and have high levels of patient and counselor satisfaction.[119]

Task shifting was extended to mental health problems because of its ability to be scaled up to provide services to individuals who otherwise did not have access to care and its adaptability to diverse countries, cultures, and local conditions. An exemplary application of task shifting in mental health was a randomized controlled trial of treatment of anxiety and depression in India.[123,124] Twenty-four public and private facilities (including more than 2,700 individuals with depression or anxiety) received a stepped-care intervention beginning with psychoeducation and then IPT, as needed and as administered by lay counselors. The lay counselors had no health background and underwent a structured two-month training course. Medication was available as was specialist attention (health professional) for suicidal patients. At 6 and 12 months after treatment, the intervention group had higher rates of recovery than did a treatment-as-usual control group administered by a primary health-care worker, as well as lower severity symptom scores, lower disability, fewer planned or attempted suicides, and fewer days of lost work. Overall, the study showed that lay counselors could be trained to administer interventions with fidelity and that their interventions reduced the rates of disorder in a large sample. This is an excellent example of extending EBPIs developed in controlled research settings to community applications but with a change in the model of delivery of those treatments. Other studies have demonstrated the impact of task shifting as a model of delivery for the treatment of depression and schizophrenia.[125,126] These demonstrations not only establish the clinical utility of task shifting but also add to the evidence that lay counselors can deliver effective treatment and that outcome effects are not sacrificed in the process.

In the field of eating disorders, task shifting has been used to train relatively inexperienced practitioners lacking formal professional credentials (i.e., clinical psychology graduate students with limited or no previous experience treating eating disorders) to administer for recurrent binge eating.[82] This study also used the train-the-trainer implementation strategy, as after receiving expert-led training in CBTgsh, a master's-level graduate student in clinical psychology subsequently trained and supervised the less experienced graduate students to implement the treatment in an open clinical trial. Participants were 38 students with recurrent binge eating, with intent-to-treat analyses revealing that 42.1% were abstinent from binge eating at post-treatment and 47.4% at one-month follow-up—outcomes that compared favorably with randomized controlled efficacy trials of CBTgsh.[28,127,128] Participants also reported significant reductions in eating disorder-specific psychopathology, general psychopathology, and high levels of treatment acceptability, with findings thus strongly suggesting that such task shifting can be done without compromising clinical outcomes. Likewise, non-specialist "facilitators" with no formal clinical qualifications achieved an outcome of 50% abstinence from binge eating using CBTgsh for individuals

with BED,[129] and a culturally adapted version of CBTgsh for Mexican Americans with binge eating, using master's-level psychology students facilitators providing support sessions over the phone, achieved an outcome of 36% abstinence.[130] The delivery of group CBT for adolescent girls with recurrent binge eating has also been task-shifted to master's-level counselors and health care professionals through use of comprehensive facilitator materials with strong outcomes—100% of participants in the CBT group were abstinent at 6-month follow-up vs. 50% in the TAU group.[131] However, a limitation to these studies is that the individuals to whom work was task shifted were psychology graduate students or master's-level clinicians—individuals with a keen interest, or even training, in psychological treatment and a desire for a professional career in the field. Furthermore, there are not large numbers of such individuals available. As such, future research will need to consider other individuals (e.g., peers, lay people) to whom work could be task shifted to provide eating disorders treatment. One example of this comes from FBT, which shifts the task of re-feeding underweight adolescents with AN from professionals (e.g., highly skilled nursing staff on inpatient eating disorder units) to parents (i.e., lay people).[132] Task shifting has been successfully used for eating disorder prevention as well. The training of peer leaders to implement the Body Project, a cognitive dissonance-based in-person eating disorder prevention program, was task shifted to undergraduate students using a hybrid task shifting/train-the-trainer model, with almost no evidence to suggest that the presence of a doctoral-level trainer yielded superior participant outcomes compared to training by undergraduate students alone.[133]

As any single model of delivering treatment, task shifting has its own unique challenges. Among them is the two-fold task of obtaining personnel. The first of these tasks is to recruit the individuals who will deliver treatment. This is easier in most circumstances that obtaining trained mental health professionals, but still can be an issue depending on the scope and scale of the treatment that is to be delivered and other potential constraints (e.g., applications in multiple rural settings). The second personnel challenge is obtaining sufficient trainers to develop the skills in those who provide direct treatment. In some of the physical health task-shifting work, administration of treatment (e.g., medication) was more straightforward than administration of psychotherapy would be. These challenges do not at all detract from the contributions of task shifting, and many of the concerns highlighted have been addressed empirically in early applications of task shifting.[119]

Disruptive Innovations.—Disruptive technology or disruptive innovations emerged from business rather than health care.[134–136] The concept pertains to a change in a product or service that is not a linear, evolutionary, or incremental step. Rather the product or service often provides a disruptive, disjunctive, or qualitative leap and develops or extends a market that is not otherwise being served. Examples include innovations in manufacturing (e.g., interchangeable parts, assembly line in car production), business (e.g., cell phone, smartphone, tablet), consumer purchasing (e.g., via credit cards, smartphones, and PayPal), social networking (e.g., Facebook, Twitter, LinkedIn), and health care (e.g., home pregnancy tests, medical robotics, and urgent care, walk-in, and minute clinics).[134] These innovations often provide simpler, less expensive, or more convenient solutions to problems and often can be scaled to reach people who would not otherwise have access.

Telemedicine, which refers to the use of communication and information technology to extend the reach of medical practice, is an example of a disruptive innovation that has changed how and where some patients receive medical care.[137] Telemedicine has been in use for over 40 years.[138] At the same time, leaps in both hardware and software have extended the range of remote applications, as illustrated by the development of diverse specialty areas (e.g., telepsychiatry, telesurgery, teleopthamology. teleaudiology, teleneurology).[139–141] Other disruptive innovations in health care have utilized nonmedical settings, such as drug stores and shopping malls, to provide a range of services to measure blood pressure or cholesterol, treat various illnesses (e.g., allergies, pinkeye, strep throat) and skin conditions (e.g., cold sores, minor burns, wart removal), and provide vaccines (e.g., flu shots). Patient referrals can be made if the tests reveal the need for further diagnostic work or intervention. The field of eating disorders has begun to make use of this advance. CBT for BN delivered via telemedicine was found to be similarly effective as face-to-face treatment and cost substantially less.[142] A study is also in progress to test the feasibility of telemedicine delivery of FBT for adolescents with AN.[143] However, a barrier to telemedicine is, at least in the US, the lack of a universal reimbursement policy among public and private sector payers regarding payment for these services.[144]

Disruptive innovations could also provide more accessible ways of delivering mental health interventions directly to patients.[145] The availability and use of computers, the Internet, and mobile phones have expanded tremendously. In 2014, nearly 90% of U.S. adults accessed the Internet,[146] and as of 2015, 68% of U.S. adults had a smartphone, up from 35% in 2011.[147] Although mental health professionals may be in short supply in developing countries and in certain parts of developed countries, mobile phones are not. In 2015, 37% of adults living in developing nations owned a smartphone.[148] As access has grown so has the functionality of technology and at the same time, technological advances have become less expensive, more compact, and more powerful.[149]

Online delivery of treatment is a disruptive intervention that extends the dominant model of therapy. These programs often include the same core CBT sessions as used with in-person treatment and are divided into sessions (with video clips describing key information and assigned homework) that patients can complete from home. Scores of online, evidence-based self-help psychosocial interventions for a range of psychological problems are now available.[150,151] These interventions can leap over many of the usual barriers of receiving treatment and expand on the dominant model of in-person, individual psychotherapy at a clinic. The NIMH in the US is clearly committed to the issue of using technology to advance mental health treatment, as evidenced by the focus of its strategic plan on the development of innovative, technology-based service delivery models[152] and the creation of the *National Advisory Mental Health Council Workgroup on Opportunities and Challenges of Developing Information Technologies on Behavioral and Social Science Research* to track and guide this rapidly-changing area.[153]

Technological-based psychosocial interventions vary in the extent to which they utilize facets of the dominant model. For example, some Web-based treatments are administered one-to-one by a mental health professional but do not require the client to go to a clinic. Others are based on self-help and may involve no therapist at all. All variations can

contribute to extending treatment to those who otherwise would not receive services. Yet, we still need demonstrations that technology in fact can and does reach large numbers of individuals and in the process has impact.

In the field of eating disorders, the growing number of reviews on the use of technology, the Internet, and mobile applications ("apps") for the treatment of eating disorders demonstrates the high level of interest in this area.[154–163] Just considering randomized controlled trials that have utilized technology for CBT delivery for individuals with clinical eating disorders, great advances have been made—from the testing of unguided CD-ROM-based programs[164,165] to email as a vehicle for therapist input[166,167] to Internet-based CBT.[155,156,168–173] This research is in its infancy, and additional studies with stronger methodology are needed, as the majority compared Internet-based CBT for eating disorders to a waitlist control. The studies needed now are randomized comparisons with CBTgsh or with full CBT, and there are several ongoing or recently completed efforts with stronger control conditions: 1) an Internet-based version of group CBT for BN (CBT4BN), in which the group intervention was conducted via a therapeutic chat group, vs. face-to-face group CBT,[174] finding that CBT4BN appeared to be efficacious, although with a slower trajectory of recovery compared to face-to-face group treatment[175]; 2) an Internet-based guided self-help CBT program for individuals with BED vs. face-to-face individual CBT (ongoing)[176]; and 3) Student Bodies-Eating Disorders (SB-ED), a CBTgsh program, utilizing brief 10–15 minute daily sessions, that is offered both via an Internet-based platform and mobile app, vs. referral to usual care among college women with clinical or subclinical eating disorders, with the exception of AN (ongoing).[177,178] Previous work has established the SB-ED's initial efficacy for reducing eating disorder psychopathology, weight concerns, binge eating, and purging.[179–181]

An example of a very large-scale application of Internet-based treatment outside of the field of eating disorders consisted of a Web-based intervention for smoking cessation.[182] The program was available in two languages (Spanish and English) and was visited by over 290,000 individuals from 168 countries. Data reported for over 7,000 participants revealed smoking quit rates ranging from 39 to 50% at different points of assessment up to an 18-month follow-up. This program advanced the notion of Massive Open Online Interventions (MOOI) to resemble the model (Massive Open Online Courses-MOOC) in education. MOOI would make available interventions that could reach individuals on a scale as the demonstration in the context of cigarette smoking.

Technology has many forms and formats, and it is useful to consider technology at an early stage, even though facets (e.g., telepsychiatry) are not new. The next evolution in treatment delivery is the mobile app. Research suggests that Americans now use smartphone apps more frequently than personal computers to access the Internet[183] and that consumers spend over 85% of their time on smartphones using apps.[184] Just as the Internet made interventions more accessible in comparison to CD-ROM-delivered programs, apps may make treatment even more accessible given their portability, high level of functionality and interactivity, and capacity for in-the-moment intervention in the real world.[185,186] There are several potential roles for apps. They may be used solely to monitor change in symptoms or other important features of a particular syndrome. Feedback can then be provided to both patient and

therapist. They may also be used to enhance behavior changes between therapy sessions or to provide coping skills for use in particular situations. Such usages may reduce therapist time and enhance outcomes. They may be used to deliver self-help or guided self-help as well. However, a recent review of smartphone applications for the treatment of eating disorders found that existing, publicly available apps contained minimal CBT techniques, failed to incorporate smartphone capabilities, and none had been well evaluated.[186]

There are a number of issues related to the strengths, limits, and potential of technology.[187] First, and most relevant to the present article, few applications of technology demonstrate that interventions can be scaled to reach large numbers and produce significant (statistically, clinically) clinical outcomes. Evidence for these might well be on the horizon, but there has been cogent concern voiced that the contribution of the use of technology may be oversold at this time or at least until better scaling with outcome evidence are forthcoming.[158,188]

Second, technologies bring their own set of limitations related to adoption including: acceptability by practitioners and the public as “treatment”; access to the Internet; and maintaining participation in a program that may not be or seem individualized. Indeed, engagement and adherence have been issues in technology-based programs for eating disorders as well as technology-based mental health programs in general.[189] Interestingly, the utility and adoption of technology (by clinical services, therapists, and clients) may well improve in the next decade as a function of cohort effects as well as the availability of more sophisticated programs. Younger age individuals are increasingly at home with technology and social media, and young children routinely chat with relatives via cell phones and Skype. Of note, about one in four users abandon apps after just one use, and almost two-thirds of users use any given app less than 11 times.[190] Future program development can take full advantage of the capabilities of technology by using approaches such as machine learning to become acquainted with an individual’s behavior patterns and subsequently deliver customized interventions during times of need, offering a form of personalized medicine. Highly sophisticated features such as these, as well as professional quality design and enhanced user experience, will increase the likelihood that users will engage with programs. Furthermore, at least in the field of eating disorders, the majority of the Internet-based programs tested have used longer, less frequent sessions (e.g., weekly 45 minute sessions) that mimic in-person delivery, but it may be that it is most optimal for technology-delivered programs to be engaged with for shorter periods of time more frequently. The overall point is clear. Technology even if at some early stage is central to our everyday lives and awaits newborns as they enter the world. How technology is viewed and accessed may well change as most people are “connected” to the Web most of the time.

Finally and related, thinking about the use of technology would profit from a revolution. To stretch our thinking of what technology can do, let us go beyond improved ways of reaching people to entirely new interventions.[191] A useful distinction has been noted in a discussion of the physical Internet, which is an active area of work in industry, engineering, and manufacturing, and refers to a way of transforming how physical objects (e.g., manufactured goods) are transported, stored, supplied, and used to achieve greater efficiency as well as sustainability.[192] As one researcher noted in that context, “It’s [the physical internet] not about a better way of doing what you now do. It’s about doing things you’ve never thought

of doing before" (p. 1106).[193] The comment is instructive by keeping both facets in mind. We want to do things better (e.g., deliver EBPIs better, more broadly, with greater reach, and so on). In addition, we also want to rethink all facets of treatment and what technology offers that may lead us to solutions that are not just novel ways of delivering what is already available.

The distinction is not dichotomous but sensitizes us to options to consider and foster truly novel ways of helping people that do not follow from standard treatments (i.e., what we do now). For example, for both treatment and prevention, large-scale and fully automated and individualized interventions can be designed to promote exercise.[194] Also, for individuals with stress, psychosocial symptoms, and impairment, support programs could be made routinely available and alleviate both mental and physical health problems.[195] Or let us be much more ambitious. A huge problem in physical and mental health care is treatment adherence. For example, getting individuals to follow through on treatment (e.g., activities, taking medication, monitoring biological states, getting follow-up checkups, filling and refilling medication prescriptions) is an issue with direct impact on disability and mortality (e.g., cardiovascular disease, cancer, diabetes, HIV/AIDs). As another example, "matching markets" are used extensively to match consumers with products and messages that are especially relevant to them (e.g., traveling, lodging, purchasing special products, and taxi services).[196] Perhaps this could be extended to mental health in some way so that people could be better targeted for the information, options, and services that might be of use to them. A recent systematic review indicated that social media can be successfully leveraged to provide health information, engage the adolescent and young adult community, and recruit research participants for health-related studies.[197] However, privacy is a valid concern and ethical implications of and best practices for targeted marketing should be carefully considered. Future work will need determine how best to utilize matching markets so as to minimize the likelihood that individuals will feel stigmatized or distressed if targeted with mental health care information or services. For instance, it is possible that information about sensitive health topics disseminated by (online) peers might be more acceptable that messages coming from health professionals.

If technology as a means of providing mental health services takes the route of other disruptive innovations, the landscape of treatment may change considerably. When disruptive innovations first emerge (e.g., personal computer, cell phone), they do not compete head-to-head with the traditional product (e.g., mainframe computer, centralized computers in industry and on campuses, landline phones, pay phones). Over time the innovation may begin to compete and take over as the product develops and the use expands. The expansions include greater convenience, ease of use, and portability in relation to original products. Perhaps innovative treatment delivery models that are disruptive, including those involving technology, will have a similar course.

Summary and Conclusions

EBPIs represent an enormous research advance. We are now at the first point in history where behavioral and social sciences have established a large set of treatments with rigorous scientific evidence on their behalf. Many evidence-based treatments for eating disorders

have also been established, including CBT, IPT, and FBT. This accomplishment has to be recognized as an evolutionary leap that allows us to consider what is needed for the next set of breakthroughs. The vast majority of EBPIs rely on a model of providing services that is one-to-one, in-person treatment delivered by a mental health professional and usually in a special setting. This model has proven itself as a platform for effective treatments. What is clear now is that we must not only ensure that more people who are receiving treatment for eating disorders and other mental disorders receive EBPIs but that we must also reach the large number of individuals who are unserved by current treatments.

In order to address the research-practice gap and ensure that more people among the small minority who are receiving treatment obtain high-quality, evidence-based care, the use of novel approaches will be required including: 1) train-the-trainer, which involves providing expert training to a single therapist who then trains other therapists at his/her center and acts as an internal coach and champion for the EBPI; 2) web-centered training, or using the Internet and technology to train and supervise therapists; 3) implementation of best-buy interventions, which are selected based on their cost-effectiveness, affordability, feasibility, and appropriateness for the setting; 4) electronic support tools that help clinicians ensure key treatment components are covered and aid in decision making; and 5) higher-level support and policy for the use of EBPIs, which has a greater likelihood of success in actually changing therapist behavior relative to relying on individual therapists to voluntarily change their behavior. To address the treatment gap and reach the large number of individuals who are unserved by current treatments, the approaches needed include: 1) task shifting, or expanding the workforce by using lay individuals to administer interventions; and 2) disruptive innovations, including the use of telemedicine, the Internet, and mobile apps for intervention delivery.

Eating disorders are still not considered serious mental illnesses in some states and countries,[3] further limiting access to treatment. Exclusion from the serious mental illness category is significant, as this information can be used by insurers to determine which mental disorders are covered vs. excluded by their policies, and unfortunately, there is no accepted definition of this category or federal legislation defining this term.[198] Thus, we may need to shift our focus to policy translation in order to accelerate progress to maximize the impact on population health.[199] Indeed, there has been a call for strategic science—research designed to address gaps in knowledge important to policy decisions, derived from the reciprocal flow of information between researchers and policy makers.[200]

Notably, there may be therapist resistance toward strategies for addressing these critical gaps in treatment. Regarding tackling the research-practice gap, some clinicians hold negative attitudes toward treatment manuals and may overvalue certain treatment features despite a lack of evidence for them, including pre-therapy motivational work and the development of a strong working alliance as a facilitator of change.[201] Likewise, clinicians may undervalue key elements of eating disorder treatment, such as the need to weigh patients, and may not use EBPIs on the grounds of spurious “justifications” (e.g., chronicity, comorbidity) that are not supported by the literature.[201] In terms of strategies for addressing the treatment gap, therapists may worry that strategies such as task shifting and using online interventions will “put them out of business.” Indeed, a review paper found conflicting evidence regarding

psychologists' acceptance of online approaches.[202] What will likely be most effective in terms of increasing use of the approaches reviewed here for tackling the research-practice and treatment gaps, as well as changing attitudes about them in the long-run, is higher-level support and policy. For instance, countries, states, or health care systems mandating the availability of EBPIs (as is being done with IAPT and the VHA model), requiring insurance reimbursement for telemedicine, providing more psychoeducation about what approaches like task shifting and mobile apps will mean (and not mean) for therapist practices, and incentivizing for the use of disruptive innovations. This kind of higher-level support has a greater likelihood of enacting widespread change versus reliance on individual behavior change, highlighting the need for strategic science. Thus, strategic science is greatly needed to dramatically increase the proportion of individuals who receive EBPIs when they receive care and to ensure coverage for novel methods and non-traditional providers of treatment for eating disorders.

There is an enormous need worldwide for interventions that reduce the personal and social burdens of eating disorders and other forms of mental illness. Research in eating disorders began and continues with the study of EBPIs in highly controlled settings. With that success, increased attention has been accorded to not only extending these to clinical practice for eating disorders through diverse dissemination efforts but also on delivering treatments in ways that reach the vast majority of individuals in need of services for eating disorders who are not otherwise served. By focusing on strategic science and conducting research to generate the data policy makers need in order to formulate relevant laws and regulations, progress in addressing critical gaps in treatment will be accelerated.

References

1. Agras WS. The consequences and costs of the eating disorders. Psychiatr Clin North Am 2001;24:371–379. [PubMed: 11416936]
2. de la Rie S, Noordenbos G, van Furth E. Quality of life and eating disorders. Qual Life Res 2005;14:1511–1521. [PubMed: 16110931]
3. Klump KL, Bulik CM, Kaye WH, Treasure J, Tyson E. Academy for eating disorders position paper: eating disorders are serious mental illnesses. Int J Eat Disord 2009;42:97–103. [PubMed: 18951455]
4. Hoek HW. Review of the worldwide epidemiology of eating disorders. Curr Opin Psychiatry 2016;29:336–339. [PubMed: 27608181]
5. Schoenwald SK, McHugh RK, Barlow DH. The science of dissemination and implementation Dissemination and implementation of evidence-based psychological interventions. Oxford University Press; 2012 p. 16–42.
6. Shidhaye R, Lund C, Chisholm D. Closing the treatment gap for mental, neurological and substance use disorders by strengthening existing health care platforms: strategies for delivery and integration of evidence-based interventions. Int J Ment Health Syst 2015;9:40. [PubMed: 26719762]
7. Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005;62:629–640. [PubMed: 15939840]
8. Demyttenaere K, Bruffaerts R, Posada-Villa J, et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. JAMA 2004;291:2581–2590. [PubMed: 15173149]
9. Olfson M, Marcus SC. National trends in outpatient psychotherapy. Am J Psychiatry 2010;167:1456–1463. [PubMed: 20686187]

10. Harvey AG, Gumport NB. Evidence-based psychological treatments for mental disorders: modifiable barriers to access and possible solutions. Behav Res Ther 2015;68:1–12. [PubMed: 25768982]
11. Sudak DM, Goldberg DA. Trends in psychotherapy training: a national survey of psychiatry residency training. Acad Psychiatry 2012;36:369–373. [PubMed: 22983467]
12. Weissman MM, Verdeli H, Gameroff MJ, et al. National survey of psychotherapy training in psychiatry, psychology, and social work. Arch Gen Psychiatry 2006;63:925–934. [PubMed: 16894069]
13. American Psychological Associaton. Standards of accreditation for health service psychology. 2015 Available at: https://www.apa.org/ed/accreditation/about/policies/standards-of-accreditation.pdf., accessed on October 31, 2016.
14. Cooper Z, Bailey-Straebler S. Disseminating evidence-based psychological treatments for eating disorders. Curr Psychiatry Rep 2015;17:551. [PubMed: 25663154]
15. Fairburn CG, Wilson GT. The dissemination and implementation of psychological treatments: problems and solutions. Int J Eat Disord 2013;46:516–521. [PubMed: 23658103]
16. Lilienfeld SO, Ritschel LA, Lynn SJ, Brown AP, Cautin RL, Latzman RD. The research-practice gap: bridging the schism between eating disorder researchers and practitioners. Int J Eat Disord 2013;46:386–394. [PubMed: 23658076]
17. Waller G Treatment protocols for eating disorders: Clinicians' attitudes, concerns, adherence and difficulties delivering evidence-based psychological interventions. Curr Psychiatry Rep 2016;18:1–8. [PubMed: 26685903]
18. Kosmerly S, Waller G, Lafrance Robinson A. Clinician adherence to guidelines in the delivery of family-based therapy for eating disorders. Int J Eat Disord 2015;48:223–229. [PubMed: 24648335]
19. von Ranson KM, Wallace LM, Stevenson A. Psychotherapies provided for eating disorders by community clinicians: infrequent use of evidence-based treatment. Psychother Res 2013;23:333–343. [PubMed: 23088433]
20. Poulsen S, Lunn S, Daniel SI, et al. A randomized controlled trial of psychoanalytic psychotherapy or cognitive-behavioral therapy for bulimia nervosa. Am J Psychiatry 2014;171:109–116. [PubMed: 24275909]
21. Wampold BE, Ollendick TH, King NJ. Do therapies designated as empirically supported treatments for specific disorders produce outcomes superior to non-empirically supported treatment therapies? In: JC Narcoss LE Beutler RF Levant, eds. Evidence-based practices in mental health: Debate and dialogue on the fundamental questions. Washington, D.C.: American Psychological Association; 2006 p. 299–328.
22. Hollon SD, Wilson GT. Psychoanalysis or cognitive-behavioral therapy for bulimia nervosa: the specificity of psychological treatments. Am J Psychiatry 2014;171:13–16. [PubMed: 24399422]
23. Kass AE, Kolko RP, Wilfley DE. Psychological treatments for eating disorders. Curr Opin Psychiatry 2013;26:549–555. [PubMed: 24060917]
24. Lock J An Update on evidence-based psychosocial treatments for eating disorders in children and adolescents. J Clin Child Adolesc Psychol 2015;44:707–721. [PubMed: 25580937]
25. Flament MF, Bissada H, Spettigue W. Evidence-based pharmacotherapy of eating disorders. Int J Neropsychopharmacol 2012;15:189–207.
26. Grilo CM, Reas DL, Mitchell JE. Combining pharmacological and psychological treatments for binge eating disorder: Current status, limitations, and future directions. Curr Psychiatry Rep 2016;18:55. [PubMed: 27086316]
27. McElroy SL, Guerdjikova AI, Mori N, Keck PE, Jr. Psychopharmacologic treatment of eating disorders: Emerging findings. Curr Psychiatry Rep 2015;17:35. [PubMed: 25796197]
28. Striegel-Moore RH, Wilson GT, DeBar L, et al. Cognitive behavioral guided self-help for the treatment of recurrent binge eating. J Consult Clin Psychol 2010;78:312–321. [PubMed: 20515207]
29. Lynch FL, Striegel-Moore RH, Dickerson JF, et al. Cost-effectiveness of guided self-help treatment for recurrent binge eating. J Consult Clin Psychol 2010;78:322–333. [PubMed: 20515208]

30. Strunk DR, Brotman MA, DeRubeis RJ, Hollon SD. Therapist competence in cognitive therapy for depression: predicting subsequent symptom change. J Consult Clin Psychol 2010;78:429–437. [PubMed: 20515218]
31. Brown LA, Craske MG, Glenn DE, et al. CBT competence in novice therapists improves anxiety outcomes. Depress Anxiety 2013;30:97–115. [PubMed: 23225338]
32. Ginzburg DM, Bohn C, Hofling V, Weck F, Clark DM, Stangier U. Treatment specific competence predicts outcome in cognitive therapy for social anxiety disorder. Behav Res Ther 2012;50:747–752. [PubMed: 23072975]
33. Branson A, Shafran R, Myles P. Investigating the relationship between competence and patient outcome with CBT. Behav Res Ther 2015;68:19–26. [PubMed: 25791437]
34. Kohn R, Saxena S, Levav I, Saraceno B. The treatment gap in mental health care. Bull World Health Organ 2004;82:858–866. [PubMed: 15640922]
35. Patel V, Maj M, Flisher AJ, De Silva MJ, Koschorke M, Prince M. Reducing the treatment gap for mental disorders: a WPA survey. World Psychiatry 2010;9:169–176. [PubMed: 20975864]
36. Hudson JI, Hiripi E, Pope HG, Jr., Kessler RC. The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. Biol Psychiatry 2007;61:348–358. [PubMed: 16815322]
37. United States Census Bureau. Population Estimates: Vintage 2007: National Tables. 2007 Avilable at: http://www.census.gov/popest/data/historical/2000s/vintage_2007/index.html.
38. United States Census Bureau. Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2015. 2015 Avilable at: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2015_PEPAGESEX&prodType=table.
39. Kessler RC, McGonagle KA, Zhao S, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. Arch Gen Psychiatry 1994;51:8–19. [PubMed: 8279933]
40. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005;62:617–627. [PubMed: 15939839]
41. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005;62:593–602. [PubMed: 15939837]
42. Kessler RC, Demler O, Frank RG, et al. Prevalence and treatment of mental disorders, 1990 to 2003. N Engl J Med 2005;352:2515–2523. [PubMed: 15958807]
43. McGuire TG, Miranda J. New evidence regarding racial and ethnic disparities in mental health: policy implications. Health Aff 2008;27:393–403.
44. Wells K, Klap R, Koike A, Sherbourne C. Ethnic disparities in unmet need for alcoholism, drug abuse, and mental health care. Am J Psychiatry 2001;158:2027–2032. [PubMed: 11729020]
45. Betancourt TS, Chambers DA. Optimizing an era of global mental health implementation science. JAMA Psychiatry 2016;73:99–100. [PubMed: 26720304]
46. Eisenberg D, Nicklett EJ, Roeder K, Kirz NE. Eating disorder symptoms among college students: prevalence, persistence, correlates, and treatment-seeking. J Am Coll Health 2011;59:700–707. [PubMed: 21950250]
47. Weissman RS, Rosselli F. Reducing the burden of suffering from eating disorders: Unmet treatment needs, cost of illness, and the quest for cost effectiveness. Behav Res Ther In press.
48. Becker AE, Franko DL, Speck A, Herzog DB. Ethnicity and differential access to care for eating disorder symptoms. Int J Eat Disord 2003;33:205–212. [PubMed: 12616587]
49. Marques L, Alegria M, Becker AE, et al. Comparative prevalence, correlates of impairment, and service utilization for eating disorders across US ethnic groups: Implications for reducing ethnic disparities in health care access for eating disorders. Int J Eat Disord 2011;44:412–420. [PubMed: 20665700]
50. Cachelin FM, Striegel-Moore RH. Help seeking and barriers to treatment in a community sample of Mexican American and European American women with eating disorders. Int J Eat Disord. 2006;39(2):154–161. [PubMed: 16252278]

51. Andrade LH, Alonso J, Mneimneh Z, et al. Barriers to mental health treatment: results from the WHO World Mental Health surveys. Psychol Med 2014;44:1303–1317. [PubMed: 23931656]
52. Corrigan PW, Druss BG, Perlick DA. The Impact of Mental Illness Stigma on Seeking and Participating in Mental Health Care. Psychol Sci Public Interest 2014;15:37–70. [PubMed: 26171956]
53. Hinshaw SP, Stier A. Stigma as related to mental disorders. Annu Rev Clin Psychol 2008;4:367–393. [PubMed: 17716044]
54. Jorm AF. Mental health literacy: empowering the community to take action for better mental health. Am Psychol 2012;67:231–243. [PubMed: 22040221]
55. ten Have M, de Graaf R, Ormel J, Vilagut G, Kovess V, Alonso J. Are attitudes towards mental health help-seeking associated with service use? Results from the European Study of Epidemiology of Mental Disorders. Soc Psychiatry Pschiatr Epidemiol 2010;45(2):153–163.
56. Beating Eating Disorders. The costs of eating disorders: social, health, and economic impacts. 2015 Available at: https://www.b-eat.co.uk/assets/000/000/302/The_costs_of_eating_disorders_Final_original.pdf.
57. 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 2016.
58. Dickerson JF, DeBar L, Perrin NA, et al. Health-service use in women with binge eating disorders. Int J Eat Disord 2011;44(6):524–530. [PubMed: 21823138]
59. Striegel-Moore RH, DeBar L, Wilson GT, et al. Health services use in eating disorders. Psychol Med 2008;38(10):1465–1474. [PubMed: 17976250]
60. 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. [PubMed: 20390615]
61. 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.
62. Wade TD, Keski-Rahkonen A, Hudson JI. Epidemiology of eating disorders Textbook of Psychiatric Epidemiology, Third Edition Chichester, UK: John Wiley & Sons, Ltd; 2011 p. 343–360.
63. Health Resources and Service Administration. Health professional shortage areas: Mental health. 2016 Avilable at: https://datawarehouse.hrsa.gov/ExportedMaps/HPSAs/HGDWMapGallery_BHPR_HPSAs_MH.pdf.
64. Health Resources and Service Administration. Defining Rural Population. 2015 Available at: http://www.hrsa.gov/ruralhealth/aboutus/definition.html.
65. Micali N, Hagberg KW, Petersen I, Treasure JL. The incidence of eating disorders in the UK in 2000–2009: findings from the General Practice Research Database. BMJ Open 2013;3.
66. Stice E, Marti CN, Rohde P. Prevalence, incidence, impairment, and course of the proposed DSM-5 eating disorder diagnoses in an 8-year prospective community study of young women. J Abnorm Psychol 2013;122:445–457. [PubMed: 23148784]
67. Volpe U, Tortorella A, Manchia M, Monteleone AM, Albert U, Monteleone P. Eating disorders: What age at onset? Psychiatry Res 2016;238:225–227. [PubMed: 27086237]
68. Garland AF, Haine-Schlagel R, Brookman-Frazee L, Baker-Ericzen M, Trask E, Fawley-King K. Improving community-based mental health care for children: translating knowledge into action. Adm Policy Ment Health 2013;40:6–22. [PubMed: 23212902]
69. Perez M, Ohrt TK, Hoek HW. Prevalence and treatment of eating disorders among Hispanics/Latino Americans in the United States. Curr Opin Psychiatry 2016;29:378–382. [PubMed: 27648780]
70. Kim BS, Ng GF, Ahn AJ. Effects of client expectation for counseling success, client-counselor worldview match, and client adherence to Asian and European American cultural values on counseling process with Asian Americans. J Couns Psychol. 2005;52(1):67.
71. Zane N, Sue S, Chang J, et al. Beyond ethnic match: Effects of client-therapist cognitive match in problem perception, coping orientation, and therapy goals on treatment outcomes. J Community Psychol. 2005;33(5):569.

72. Griner D, Smith TB. Culturally adapted mental health intervention: A meta-analytic review. Psychotherapy (Chic). 2006;43(4):531–548. [PubMed: 22122142]
73. Nathan PE, Gorman JM. A guide to treatments that work. Oxford University Press; 2015.
74. Beidas RS, Kendall PC. Training therapists in evidence-based practice: A critical review of studies from a systems-contextual perspective. Clin Psychol 2010;17:1–30.
75. Shafran R, Clark DM, Fairburn CG, et al. Mind the gap: Improving the dissemination of CBT. Behav Res Ther 2009;47:902–909. [PubMed: 19664756]
76. Insel TR. Translating scientific opportunity into public health impact: a strategic plan for research on mental illness. Arch Gen Psychiatry 2009;66:128–133. [PubMed: 19188534]
77. Herschell AD, Kolko DJ, Baumann BL, Davis AC. The role of therapist training in the implementation of psychosocial treatments: a review and critique with recommendations. Clin Psychol Rev 2010;30:448–466. [PubMed: 20304542]
78. Bandura A Social foundations of thought and action. Englewoods Cliffs, NJ: Prentice-Hall; 1986.
79. Martino S, Ball SA, Nich C, Canning-Ball M, Rounsaville BJ, Carroll KM. Teaching community program clinicians motivational interviewing using expert and train-the-trainer strategies. Addiction 2011;106:428–441. [PubMed: 20925684]
80. Southam-Gerow MA, Daleiden EL, Chorpita BF, et al. MAPping Los Angeles County: taking an evidence-informed model of mental health care to scale. J Clin Child Adolesc Psychol 2014;43:190–200. [PubMed: 24079613]
81. Jacob N, Neuner F, Maedl A, Schaal S, Elbert T. Dissemination of psychotherapy for trauma spectrum disorders in postconflict settings: a randomized controlled trial in Rwanda. Psychother Psychosom 2014;83:354–363. [PubMed: 25323203]
82. 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;21:230–237. [PubMed: 23109361]
83. Greif R, Becker CB, Hildebrandt T. Reducing eating disorder risk factors: A pilot effectiveness trial of a train-the-trainer approach to dissemination and implementation. Int J Eat Disord 2015;48:1122–1131. [PubMed: 26281792]
84. National Institue of Mental Health; Washington University School of Medicine. Implementation of evidence-based treatments for on-campus eating disorders. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US) 2000- [cited 2016 10 31]. Available at: https://clinicaltrials.gov/ct2/show/NCT02079142?term=NCT02079142&rank=1 NLM Identifier: NCT02079142.
85. Wilfley DE, Wilson GT, Van Buren DJ, et al. Facilitating the dissemination and implementation of an evidence-based psychological treatment for eating disorders within college counseling centers Paper presented at the Annual Meeting of the Eating Disorders Research Society. New York, NY; 2016 Oct.
86. Resnick JL. Chapter 5. Evidence-Based Practice for Treatment of Eating Disorders. J College Stud Psychother 2005;20:49–65.
87. Tanofsky-Kraff M, Wilfley DE. Interpersonal psychotherapy for bulimia nervosa and binge-eating disorder The treatment of eating disorders: A clinical handbook. New York Guilford Press; 2010 p. 271–293.
88. National Institute for Health and Clinical Excellence Eating disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders. Leicester, UK: British Psychological Society; 2004.
89. Weisz JR, Hawley KM. Developmental factors in the treatment of adolescents. J Consult Clin Psychol 2002;70:21–43. [PubMed: 11860047]
90. Wilson GT, Wilfley DE, Agras WS, Bryson SW. Psychological treatments of binge eating disorder. Arch Gen Psychiatry 2010;67:94–101. [PubMed: 20048227]
91. Cuijpers P, Donker T, Weissman MM, Ravitz P, Cristea IA. Interpersonal Psychotherapy for Mental Health Problems: A Comprehensive Meta-Analysis. Am J Psychiatry 2016;173:680–687. [PubMed: 27032627]
92. Weissman MM, Hankerson SH, Scorza P, et al. Interpersonal Counseling (IPC) for Depression in Primary Care. Am J Psychother 2014;68:359–383. [PubMed: 26453343]

93. Markowitz JC, Petkova E, Neria Y, et al. Is exposure necessary? A randomized clinical trial of interpersonal psychotherapy for PTSD. Am J Psychiatry 2015;172:430–440. [PubMed: 25677355]
94. Fairburn CG, Cooper Z. Therapist competence, therapy quality, and therapist training. Behav Res Ther 2011;49:373–378. [PubMed: 21492829]
95. Waller G Evidence-based treatment and therapist drift. Behav Res Ther 2009;47:119–127. [PubMed: 19036354]
96. Fairburn CG, Patel V. The global dissemination of psychological treatments: a road map for research and practice. Am J Psychiatry 2014;171:495–498. [PubMed: 24788281]
97. Wilfley DE. Harnessing Technology for Training Clinicians to Deliver Interpersonal Psychotherapy (IPT) Paper presented at the National Eating Disorders Association Conference. San Deigo, CA; 2015 Oct.
98. Issenberg SB, McGaghie WC, Hart IR, et al. Simulation technology for health care professional skills training and assessment. JAMA 1999;282:861–866. [PubMed: 10478693]
99. Kuehster CR, Hall CD. Simulation: learning from mistakes while building communication and teamwork. J Nurses Staff Dev 2010;26:123–127. [PubMed: 20508427]
100. Gordon JA, Wilkerson WM, Shaffer DW, Armstrong EG. “Practicing” medicine without risk: students’ and educators’ responses to high-fidelity patient simulation. Acad Med 2001;76:469–472. [PubMed: 11346525]
101. World Health Organization. Prevention and Control of NCDs: Summary. First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control Moscow; 2011.
102. Chisholm D, Lund C, Saxena S. Cost of scaling up mental healthcare in low- and middle-income countries. Br J Psychiatry 2007;191:528–535. [PubMed: 18055957]
103. Chisholm D, Saxena S. Cost effectiveness of strategies to combat neuropsychiatric conditions in sub-Saharan Africa and South East Asia: mathematical modelling study. BMJ 2012;344:e609. [PubMed: 22389339]
104. World Health Organization. Scaling up action against NCDs: How much will it cost? 2011.
105. Weisz JR, Ng MY, Bearman SK. Odd couple? Reenvisioning the relation between science and practice in the dissemination-implementation era. Clin Psycholl Sci 2014;2:58–74.
106. Weisz J, Bearman SK, Santucci LC, Jensen-Doss A. Initial test of a principle-guided approach to transdiagnostic psychotherapy with children and adolescents. J Clin Child Adolesc Psychol 2016:1–15.
107. Fairburn CG, Jones R, Peveler RC, Hope RA, O’Connor M. Psychotherapy and bulimia nervosa. Longer-term effects of interpersonal psychotherapy, behavior therapy, and cognitive behavior therapy. Arch Gen Psychiatry. 1993;50(6):419–428. [PubMed: 8498876]
108. Agras WS, Walsh T, Fairburn CG, Wilson GT, Kraemer HC. A multicenter comparison of cognitive-behavioral therapy and interpersonal psychotherapy for bulimia nervosa. Arch Gen Psychiatry. 2000;57(5):459–466. [PubMed: 10807486]
109. Fairburn CG. Cognitive behavior therapy and eating disorders. New York Guilford Press; 2008.
110. Madden S, Miskovic-Wheatley J, Wallis A, et al. A randomized controlled trial of in-patient treatment for anorexia nervosa in medically unstable adolescents. Psychol Med. 2015;45(2):415–427. [PubMed: 25017941]
111. Jenssen BP, Bryant-Stephens T, Leone FT, Grundmeier RW, Fiks AG. Clinical decision support tool for parental tobacco treatment in primary care. Pediatrics. 2016;137. [PubMed: 27543009]
112. Tregarthen JP, Lock J, Darcy AM. Development of a smartphone application for eating disorder self-monitoring. Int J Eat Disord 2015;48:972–982. [PubMed: 26213130]
113. Layard R, Clark DM. Thrive: How Better Mental Health Care Transforms Lives and Saves Money. Princeton University Press; 2015.
114. National Collaborating Centre for Mental Health. Access and waiting time standard for children and young people with an eating disorder: Commissioning guide. 2015 Available at: https://www.england.nhs.uk/wp-content/uploads/2015/07/cyp-eating-disorders-access-waiting-time-standard-comm-guid.pdf.
115. National Health Service. Eating disorders programme. Available at: https://www.england.nhs.uk/mentalhealth/cyp/eating-disorders/.

116. Karlin BE, Cross G. From the laboratory to the therapy room: National dissemination and implementation of evidence-based psychotherapies in the U.S. Department of Veterans Affairs Health Care System. Am Psychol 2014;69:19–33. [PubMed: 24001035]

117. Kazdin AE, Blase SL. Rebooting psychotherapy research and practice to reduce the burden of mental illness. Perspect Psychol Sci 2011;6:21–37. [PubMed: 26162113]

118. Kazdin AE, Rabbitt SM. Novel models for delivering mental health services and reducing the burdens of mental illness. Clin Psychol Sci 2013;1:170–191.

119. World Health Organization. Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines. Geneva: World Health Organization; 2007.

120. Institute of Medicine (US) Committee on Preventing the Global Epidemic of Cardiovascular Disease: Meeting the Challenges in Developing Countries. Promoting Cardiovascular Health in the Developing World: A Critical Challenge to Achieve Global Health. Washington (DC): National Academies Press (US); 2010.

121. Institute of Medicine. Child and adolescent health and health care quality: Measuring what matters. Washington (DC): National Academies Press (US); 2011.

122. United Nations. Resolution adopted by the General Assembly. United Nations Millennium Declaration. 2000 Available at: http://www.un.org/millennium/declaration/ares552e.pdf.

123. Patel V, Weiss HA, Chowdhary N, et al. Effectiveness of an intervention led by lay health counsellors for depressive and anxiety disorders in primary care in Goa, India (MANAS): a cluster randomised controlled trial. Lancet 2010;376:2086–2095. [PubMed: 21159375]

124. Patel V, Weiss HA, Chowdhary N, et al. Lay health worker led intervention for depressive and anxiety disorders in India: impact on clinical and disability outcomes over 12 months. Br J Psychiatry 2011;199:459–466. [PubMed: 22130747]

125. Balaji M, Chatterjee S, Koschorke M, et al. The development of a lay health worker delivered collaborative community based intervention for people with schizophrenia in India. BMC Health Serv Res 2012;12:42. [PubMed: 22340662]

126. Rahman A, Malik A, Sikander S, Roberts C, Creed F. Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. Lancet 2008;372:902–909. [PubMed: 18790313]

127. Grilo CM, Masheb RM. A randomized controlled comparison of guided self-help cognitive behavioral therapy and behavioral weight loss for binge eating disorder. Behav Res Ther 2005;43:1509–1525. [PubMed: 16159592]

128. Mitchell JE, Agras S, Crow S, et al. Stepped care and cognitive-behavioural therapy for bulimia nervosa: randomised trial. Br J Psychiatry 2011;198:391–397. [PubMed: 21415046]

129. Carter JC, Fairburn CG. Cognitive-behavioral self-help for binge eating disorder: a controlled effectiveness study. J Consult Clin Psychol 1998;66:616–623. [PubMed: 9735577]

130. Cachelin FM, Shea M, Phimphasone P, Wilson GT, Thompson DR, Striegel RH. Culturally adapted cognitive behavioral guided self-help for binge eating: A feasibility study with Mexican Americans. Cultur Divers Ethnic Minor Psychol. 2014;20(3):449–457. [PubMed: 25045955]

131. Debar LL, Wilson GT, Yarborough BJ, et al. Cognitive behavioral treatment for recurrent binge eating in adolescent girls: A pilot trial. Cogn Behav Pract. 2013;20(2):147–161. [PubMed: 23645978]

132. Lock J, Le Grange D. Treatment manual for anorexia nervosa: A family-based approach. Guilford Publications; 2015.

133. Kilpela LS, Hill K, Kelly MC, et al. Reducing eating disorder risk factors: a controlled investigation of a blended task-shifting/train-the-trainer approach to dissemination and implementation. Behav Res Ther 2014;63:70–82. [PubMed: 25305538]

134. Christensen CM, Grossman JH, Hwang J. The innovator's prescription A disruptive solution for health care. New York, NY: McGraw-Hill; 2009.

135. Bower JL, Christensen CM. Disruptive technologies: catching the wave. Harvard Business Review Video; 1995.

136. Christensen C, Raynor M. The innovator's solution: Creating and sustaining successful growth. Harvard Business Review Press; 2013.

137. Roine R, Ohinmaa A, Hailey D. Assessing telemedicine: a systematic review of the literature. CMAJ 2001;165:765–771. [PubMed: 11584564]
138. American Telemedicine Association. Available at: http://www.americantelemed.org/home.
139. Buck J, Manges K, Kaboli P. Asynchronous Teleneurology: A Systematic Review of Electronic Provider-to-Provider Communications (P3. 400). Neurology. 2016;86(16 Supplement):P3. 400.
140. Martini MG, Hewage CT, Nasralla MM, Smith R, Jourdan I, Rockall T. 3-D robotic tele-surgery and training over next generation wireless networks. Conf Proc IEEE Eng Med Biol Sci 2013;2013:6244–6247.
141. Wotton R Telepsychiatry and e-mental health. 3rd ed. London: Royal Society of Medicine Press; 2003.
142. Crow SJ, Mitchell JE, Crosby RD, Swanson SA, Wonderlich S, Lancanster K. The cost effectiveness of cognitive behavioral therapy for bulimia nervosa delivered via telemedicine versus face-to-face. Behav Res Ther 2009;47:451–453. [PubMed: 19356743]
143. Anderson KE, Byrne C, Goodyear A, Reichel R, Le Grange D. Telemedicine of family-based treatment for adolescent anorexia nervosa: A protocol of a treatment development study. J Eat Disord 2015;3:25. [PubMed: 26167281]
144. Health Resources & Services Administration. What are the reimbursement issues for telehealth? Available at: https://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Telehealth/whatarethereimbursement.html.
145. Rotheram-Borus MJ, Swendeman D, Chorpita BF. Disruptive innovations for designing and diffusing evidence-based interventions. Am Psychol 2012;67:463–476. [PubMed: 22545596]
146. World Bank Group. Internet users (per 100 people). Available at: http://data.worldbank.org/indicator/IT.NET.USER.P2.
147. Anderson M Technology Device Ownership: 2015. 2015Available at: http://www.pewinternet.org/2015/10/29/technology-device-ownership-2015/.
148. Poushter J Smartphone ownership and internet usage continues to climb in emerging economies. 2016 Availale at: http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/.
149. Kurzweil R Technology 25 years hence. The New York Times 2010 Available at: http://www.nytimes.com/roomfordebate/2010/12/27/why-do-we-need-to-predict-the-future/technology-25-years-hence.
150. Bennett-Levy J, Richards D, Farrand P, et al. Oxford guide to low intensity CBT interventions. Oxford, UK: Oxford University Press; 2010.
151. Harwood TM, L'Abate L. Self-help in mental health: A critical review. New York, NY: Springer; 2010.
152. National Institute of Mental Health. NIMH Strategic plan for research. 2015 Available at: https://www.nimh.nih.gov/about/strategic-planning-reports/index.shtml.
153. National Institute of Mental Health. Technology and the future of mental health treatment. 2016 Available at: https://www.nimh.nih.gov/health/topics/technology-and-the-future-of-mental-health-treatment/index.shtml.
154. Aardoom JJ, Dingemans AE, Spinhoven P, Van Furth EF. Treating eating disorders over the internet: a systematic review and future research directions. Int J Eat Disord 2013;46:539–552. [PubMed: 23674367]
155. Aardoom JJ, Dingemans AE, Van Furth EF. E-Health interventions for eating disorders: Emerging findings, issues, and ppportunities. Curr Psychiatry Rep. 2016;18:42. [PubMed: 26946513]
156. Agras WS, Fitzsimmons-Craft EE, Wilfley DE. Evolution of cognitive-behavioral therapy for eating disorders. Behav Res Ther In press.
157. Ambwani S, Cardi V, Treasure J. Mobile self-help interventions for anorexia nervosa: Conceptual, ethical, and methodological considerations for clinicians and researchers. Prof Psychol Res Pr 2014;45:316.
158. Bauer S, Moessner M. Harnessing the power of technology for the treatment and prevention of eating disorders. Int J Eat Disord 2013;46:508–515. [PubMed: 23658102]

159. Dolemeyer R, Tietjen A, Kersting A, Wagner B. Internet-based interventions for eating disorders in adults: a systematic review. BMC Psychiatry 2013;13:207. [PubMed: 23919625]

160. Fairburn CG, Rothwell ER. Apps and eating disorders: A systematic clinical appraisal. Int J Eat Disord 2015;48:1038–1046. [PubMed: 25728705]

161. Loucas CE, Fairburn CG, Whittington C, Pennant ME, Stockton S, Kendall T. E-therapy in the treatment and prevention of eating disorders: A systematic review and meta-analysis. Behav Res Ther 2014;63:122–131. [PubMed: 25461787]

162. Schlegl S, Burger C, Schmidt L, Herbst N, Voderholzer U. The potential of technology-based psychological interventions for anorexia and bulimia nervosa: a systematic review and recommendations for future research. J Med Internet Res 2015;17:e85. [PubMed: 25840591]

163. Shingleton RM, Richards LK, Thompson-Brenner H. Using technology within the treatment of eating disorders: a clinical practice review. Psychotherapy (Chic) 2013;50:576–582. [PubMed: 23527906]

164. Schmidt U, Andiappan M, Grover M, et al. Randomised controlled trial of CD-ROM-based cognitive-behavioural self-care for bulimia nervosa. Br J Psychiatry 2008;193:493–500. [PubMed: 19043154]

165. Shapiro JR, Reba-Harrelson L, Dymek-Valentine M, Woolson SL, Hamer RM, Bulik CM. Feasibility and acceptability of CD-ROM-based cognitive-behavioural treatment for binge-eating disorder. Eur Eat Disord Rev 2007;15:175–184. [PubMed: 17676687]

166. Ljotsson B, Lundin C, Mitsell K, Carlbring P, Ramklint M, Ghaderi A. Remote treatment of bulimia nervosa and binge eating disorder: a randomized trial of Internet-assisted cognitive behavioural therapy. Behav Res Ther 2007;45:649–661. [PubMed: 16899213]

167. Robinson P, Serfaty M. Getting better byte by byte: a pilot randomised controlled trial of email therapy for bulimia nervosa and binge eating disorder. Eur Eat Disord Rev 2008;16:84–93. [PubMed: 17879223]

168. Carrard I, Crepin C, Rouget P, Lam T, Golay A, Van der Linden M. Randomised controlled trial of a guided self-help treatment on the Internet for binge eating disorder. Behav Res Ther 2011;49:482–491. [PubMed: 21641580]

169. Ruwaard J, Lange A, Broeksteeg J, et al. Online cognitive-behavioural treatment of bulimic symptoms: a randomized controlled trial. Clin Psychol Psychother 2013;20:308–318. [PubMed: 22298417]

170. Sanchez-Ortiz VC, Munro C, Stahl D, et al. A randomized controlled trial of internet-based cognitive-behavioural therapy for bulimia nervosa or related disorders in a student population. Psychol Med 2011;41:407–417. [PubMed: 20406523]

171. ter Huurne ED, de Haan HA, Postel MG, van der Palen J, VanDerNagel JE, DeJong CA. Web-based cognitive behavioral therapy for female patients with eating disorders: Randomized controlled trial. J Med Internet Res 2015;17:e152. [PubMed: 26088580]

172. Wagner G, Penelo E, Wanner C, et al. Internet-delivered cognitive-behavioural therapy v. conventional guided self-help for bulimia nervosa: long-term evaluation of a randomised controlled trial. Br J Psychiatry 2013;202:135–141. [PubMed: 23222037]

173. Wagner B, Nagl M, Dolemeyer R, et al. Randomized controlled trial of an internet-based cognitive-behavioral treatment program for binge-eating disorder. Behav Ther 2016;47:500–514. [PubMed: 27423166]

174. Bulik CM, Marcus MD, Zerwas S, et al. CBT4BN versus CBTF2F: comparison of online versus face-to-face treatment for bulimia nervosa. Contemp Clin Trials 2012;33:1056–1064. [PubMed: 22659072]

175. Zerwas SC, Watson HJ, Hofmeier SM, et al. CBT4BN: A Randomized Controlled Trial of Online Chat and Face-to-Face Group Therapy for Bulimia Nervosa. Psychother Psychosom. 2017;86(1): 47–53. [PubMed: 27883997]

176. de Zwaan M, Herpertz S, Zipfel S, et al. INTERBED: internet-based guided self-help for overweight and obese patients with full or subsyndromal binge eating disorder. A multicenter randomized controlled trial. Trials. 2012;13:220. [PubMed: 23171536]

177. Wilfley DE, Agras WS, Taylor CB. Reducing the burden of eating disorders: a model for population-based prevention and treatment for university and college campuses. Int J Eat Disord. 2013;46:529–532. [PubMed: 23658106]

178. National Institute of Mental Health; Washington University School of Medicine; University of Stanford. Using Technology to Improve Eating Disorders Treatment. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US) 2000- [cited 2016 10 31]. Available from: https://clinicaltrials.gov/ct2/show/NCT02076464?term=wilfley&rank=2.

179. Jacobi C, Volker U, Trockel MT, Taylor CB. Effects of an Internet-based intervention for subthreshold eating disorders: a randomized controlled trial. Behav Res Ther 2012;50:93–99. [PubMed: 22137366]

180. Jones M, Luce KH, Osborne MI, et al. Randomized, controlled trial of an internet-facilitated intervention for reducing binge eating and overweight in adolescents. Pediatrics 2008;121:453–462. [PubMed: 18310192]

181. Saekow J, Jones M, Gibbs E, et al. StudentBodies-eating disorders: A randomized controlled trial of a coached online intervention for subclinical eating disorders. Internet Interv 2015;2:419–428.

182. Muñoz RF, Bunge EL, Chen K, et al. Massive open online interventions a novel model for delivering behavioral-health services worldwide. Clin Psychol Sci 2015;4:194–205.

183. O'Toole J Mobile apps overtake PC Internet usage in US. 2014 Available at: http://money.cnn.com/2014/02/28/technology/mobile/mobile-apps-internet/.

184. Perez S Consumers Spend 85% Of Time On Smartphones In Apps, But Only 5 Apps See Heavy Use. 2015 Available at: https://techcrunch.com/2015/06/22/consumers-spend-85-of-time-on-smartphones-in-apps-but-only-5-apps-see-heavy-use/.

185. Heron KE, Smyth JM. Ecological momentary interventions: incorporating mobile technology into psychosocial and health behaviour treatments. Br J Health Psychol 2010;15:1–39. [PubMed: 19646331]

186. Juarascio AS, Manasse SM, Goldstein SP, Forman EM, Butryn ML. Review of smartphone applications for the treatment of eating disorders. Eur Eat Disord Rev 2015;23:1–11. [PubMed: 25303148]

187. Bennett GG, Glasgow RE. The delivery of public health interventions via the Internet: actualizing their potential. Annu Rev Public Health 2009;30:273–292. [PubMed: 19296777]

188. Tomlinson M, Rotheram-Borus MJ, Swartz L, Tsai AC. Scaling up mHealth: where is the evidence? PLoS Med 2013;10:e1001382. [PubMed: 23424286]

189. Nitsch M, Dimopoulos CN, Flaschberger E, et al. A Guided Online and Mobile Self-Help Program for Individuals With Eating Disorders: An Iterative Engagement and Usability Study. J Med Internet Res. 2016;18(1):e7. [PubMed: 26753539]

190. O'Connell C 23% of Users Abandon an App After One Use. Localytics. 2016 Available at: http://info.localytics.com/blog/23-of-users-abandon-an-app-after-one-use

191. Kazdin AE. Technology-based interventions and reducing the burdens of mental illness: Perspectives and comments on the special series. Cogn Behav Pract 2015;22:359–366.

192. Physical Internet: Efficient Sustainable Logisitcs. Available at: http://www.physicalinternetinitiative.org/

193. Wible B, Mervis J, Wigginton NS. Rethinking the global supply chain. Science 2014;344:1100–1103. [PubMed: 24904151]

194. Hurling R, Catt M, Boni MD, et al. Using internet and mobile phone technology to deliver an automated physical activity program: randomized controlled trial. J Med Internet Res 2007;9:e7. [PubMed: 17478409]

195. Bouma G, Admiraal JM, de Vries EG, Schroder CP, Walenkamp AM, Reyners AK. Internet-based support programs to alleviate psychosocial and physical symptoms in cancer patients: a literature analysis. Crit Rev Oncol Hematol 2015;95:26–37. [PubMed: 25701515]

196. Azevedo EM, Weyl EG. Matching markets in the digital age. Science 2016;352:1056–1057. [PubMed: 27230366]

197. Yonker LM, Zan S, Scirica CV, Jethwani K, Kinane TB. "Friending" teens: Systematic review of social media in adolescent and young adult health care. J Med Internet Res 2015;17(1):e4. [PubMed: 25560751]

198. Bye L, Partridge J. State level classification of serious mental illness: a case for a more uniform standard. J Health Soc Policy 2004;19:1–29.

199. Austin SB. Accelerating Progress in Eating Disorders Prevention: A Call for Policy Translation Research and Training. Eat Disord 2016;24:6–19. [PubMed: 25880718]

200. Brownell KD, Roberto CA. Strategic science with policy impact. Lancet 2015;385:2445–2446. [PubMed: 25703107]

201. Waller G Treatment Protocols for Eating Disorders: Clinicians' Attitudes, Concerns, Adherence and Difficulties Delivering Evidence-Based Psychological Interventions. Curr Psychiatry Rep 2016;18(4):36. [PubMed: 26893234]

202. Perle JG, Langsam LC, Nierenberg B. Controversy clarified: an updated review of clinical psychology and tele-health. Clin Psychol Rev 2011;31(8):1247–1258. [PubMed: 21963670]

203. Kazdin AE. Addressing the treatment gap: A key challenge for extending evidence-based psychosocial interventions. Behav Res Ther In press.

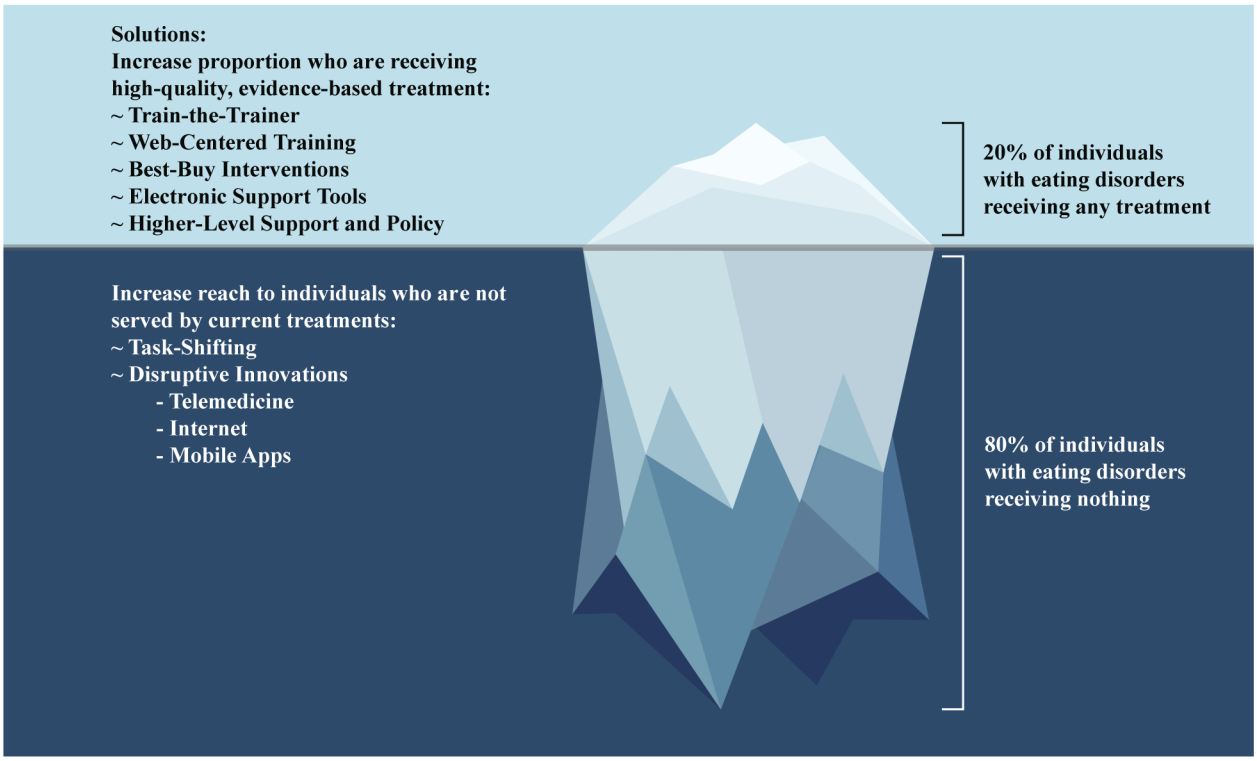

Figure 1.

Depiction of the iceberg analogy: Ensuring that more people among the small minority who are receiving treatment obtain high-quality, evidence-based care and reaching the large number of individuals who are unserved by current treatments

Table 1.

Novel Models Used for Addressing the Research-Practice and Treatment Gaps: Key Characteristics and Examples

Model	Key Characteristic	Examples	Sample References
Addressing the Research-Practice Gap: Ensuring More People Who Receive Treatment Receive Evidence-Based Psychosocial Interventions			
Train-the-Trainer	Expert training is provided to a single therapist, who then trains other therapists at his/her center and act as an internal coach and champion.	There is preliminary support of this method for cognitive-behavioral therapy guided self-help (CBTgsh) for eating disorders.	Zandberg & Wilson[82]
Web-Centered Training	Using the Internet to train and supervise therapists, which is lower in cost and more scalable than traditional methods.	In the field of eating disorders, the testing of comprehensive online training programs in enhanced cognitive-behavioral therapy (CBT-E) and interpersonal psychotherapy (IPT) is underway.	Fairburn & Patel[96] Wilfley, Wilson, & Agras[84,85]
Best-Buy Interventions	Implementation of interventions selected based on their cost-effectiveness, affordability, feasibility for the setting, and other criteria. Conceived as an economic tool to help countries select among evidence-based strategies to achieve a given amount of change.	Best buys for depression include generic antidepressants, brief psychotherapy, and treating it within the primary care setting. IPT might be considered a best buy given its ability to not only address eating disorders but also a variety of other mental health concerns. Likewise, CBT-E has the ability to address eating disorders across the diagnostic spectrum. On the dimension of cost-effectiveness for eating disorders, family-based treatment (FBT) and CBTgsh should be considered best buys.	Chisholm et al.[102] Cuijpers et al.[91] Fairburn[109] Madden et al.[110]
Electronic Support Tools	Can help ensure important topics are covered and aid in decision-making.	Support tools can help clinicians deliver smoking cessation treatment. In addition, the app *Recovery Record* allows clients with eating disorders to share data on their behaviors, thoughts, and emotions with their therapist.	Jenssen et al.[111] Tregarthen et al.[112]
Higher-Level Support and Policy	Higher-level support and policy has a greater likelihood of success in actually changing therapist behavior relative to relying on individual therapists to voluntarily receive training and modify their behavior.	In England, Improving Access to Psychological Therapies (IAPT) is a systematic way of organizing the delivery of evidence-based psychological treatment, according to NICE guidelines, within England's National Health Service.	Layard & Clark[113]
Addressing the Treatment Gap: Reaching Individuals Who Are Unserved by Current Treatments			
Task Shifting	Expanding the workforce by using lay individuals to administer interventions that otherwise might be delivered by health professionals.	This approach was used to treat anxiety and depression in India. In addition, it has been utilized to train graduate students to treat binge eating with CBTgsh.	Patel et al.[123] Zandberg & Wilson[82]
Disruptive Innovations	A change in a product or service that extends it to a market that is not otherwise being served.	CBT for bulimia nervosa delivered via telemedicine is just as effective as face-to-face treatment, but costs considerably less. Many other online interventions for eating disorders have been tested and show preliminary support.	Crow et al.[142] Aardoom et al.[155]

Table 2.

Key Characteristics of Models of Treatment Delivery to Reach More People in Need of Services

Characteristic	Explained
Reach	Capacity to reach individuals not usually served or well served by the traditional dominant service delivery model
Scalability	Capacity to be applied on a large scale or larger scale than traditional service delivery
Affordability	Relatively low cost compared to the usual model that relies on individual treatment by highly trained (Master's, doctoral degree) professionals
Expansion of the nonprofessional work force	Increase the number of providers who can deliver interventions
Expansion of settings where interventions are provided	Bring interventions to locales and everyday settings where people in need are likely to participate or attend already
Feasibility and flexibility of intervention delivery	Ensure the interventions can be implemented and adapted to varied local conditions to reach diverse groups in need
Flexibility and choice of alternatives for clients within a particular type or class of effective interventions	Allow choice or alternative ways to meet the criteria for what would be an effective intervention. Exercise and meditation, for examples, two very broad classes of intervention that affect mental health and clinical dysfunction. Yet, multiple options of precisely what is done to achieve similar outcomes are available.

Note. Adapted from Kazdin.[203]