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Increased wait-list time predicts dropout from outpatient enhanced cognitive behaviour therapy (CBT-E) for eating disorders

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ABSTRACT

Between 30 and 70% of patients with eating disorders drop out from outpatient treatment. However, research has been unable to identify factors that consistently predict dropout from eating disorder treatment. Most studies have exclusively investigated the role that individual patient characteristics play in dropout and have ignored more process-based factors such as expectations about treatment, the therapeutic alliance, or time spent on a treatment waiting list. This study aimed to investigate the roles of both individual patient characteristics and process-based factors in dropout from outpatient treatment for eating disorders. The study involved data collected from consecutive eating disorder referrals to the only public specialist eating disorder service for youth and adults in Perth, Western Australia. The standard treatment provided at this service is Enhanced Cognitive Behaviour Therapy on an individual basis. The study involved 189 patients referred to the service between 2005 and 2010. Forty five percent of this sample dropped out of treatment. Results showed that, in this sample, two individual factors, lowest reported weight and the tendency to avoid affect, and one process-based factor, time spent on the wait list for treatment, were significant predictors of dropout. These findings are valuable because a process-based factor, such as wait-list time, may be easier to address and modify than a patient's weight history or the trait of mood intolerance. Increased resources for eating disorder services may reduce waiting list times which would help to reduce dropout and maximize treatment outcomes.

Introduction

The incidence of eating disorders in Australia is estimated to have increased more than two-fold between 1995 and 2005 (Hay, Mond, Buttner, & Darby, 2008). Despite this, a study by Mond, Hay, Rodgers, and Owen (2007) revealed that less than half (40.3%) of the individuals in an Australian community sample with a diagnosable eating disorder have ever presented for treatment. Even among those who do present for treatment, a significant proportion fails to complete the full treatment course (Blouin et al., 1995; Campbell, 2009). 'Dropout' is commonly defined as non-consensual termination of treatment by the patient, or staff-initiated discharge due to the patient's inability to accept the goals of treatment (e.g., achieving a Body Mass Index [BMI] > 18.5 kg/m^2 or cessation of purging). According to a recent meta-analysis, dropout rates from treatment for eating disorders vary between 20 and 51% in inpatient settings, and 29–73% in outpatient settings (Fassino, Pierò, Tomba, & Abbate-Daga, 2009).

The high dropout rates associated with eating disorder treatment are problematic for several reasons. First, and most importantly, clinical outcomes are generally assumed to be worse for those individuals who drop out of treatment. However, since few studies have been able to include dropouts in post-treatment or follow-up assessments, this assumption has been largely untested. Second, failed and/or repeated treatment delivery burdens the mental health system, increases waiting list times and results in low cost-effectiveness of treatment delivery (Mahon, 2000; Wierzbicki & Pekarik, 1993). Third, high dropout rates significantly limit the production of statistically sound treatment outcome research in the eating disorders, particularly in anorexia nervosa (AN). Fourth, studies have found that patient dropout can adversely affect clinician morale (Gleeson, Chant, Cusick, Dickson, & Hodgers, 1991; Tweed & Salter, 2000).

In order to maximise the chance of a successful outcome for eating disordered individuals, minimise future health risks, and

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help improve the quality of treatment and treatment outcome research, it would appear important that patients who enter treatment complete the prescribed course. In order to achieve this goal, research is required to ascertain why individuals drop out of treatment for eating disorders, and how dropout can be minimised.

Previous research focussing on factors affecting patient dropout from treatment for eating disorders has yielded varied, and sometimes disparate, results (Masson, Perlman, Ross, & Gates, 2007). In a review of the literature relating to dropout among individuals being treated for AN in an inpatient setting, Wallier et al. (2009) concluded that "results were scarce and conflicting, with methodological issues complicating comparisons" (p. 636). Dropout from treatment for an eating disorder has been found to be variously predicted by comorbidity for a psychiatric disorder, previous psychiatric treatment, longer duration of illness, family dysfunction, increased levels of depression and hopelessness, higher levels of body dissatisfaction and certain personality variables such as aggressive tendencies and perfectionism (Fassino, Abbate-Daga, Piero, Leombruni, & Rovera, 2003; Franzen, Backmund, & Gerlinghoff, 2004; Hoste, Zaitsoff, Hewell, & le Grange, 2007; Kahn & Pike, 2001; Lock, Couturier, Bryson, & Agras, 2006; Mahon, Winston, Palmer, & Harvey, 2001; Peake, Limbert, & Whitehead, 2005; Steel et al., 2000). However, few findings have ever been replicated and, in many cases, results have been contradictory (Mahon, 2000). As a result, it is difficult to form conclusions about the factors that increase a patient's risk of dropping out from treatment for an eating disorder.

Recent reviews by Sly (2009) and Campbell (2009) have suggested that the very use of the term 'dropout' may have biased researchers towards focussing their investigations on individual patient characteristics associated with dropout rather than adopting a broader approach which encompasses the whole process of treatment. Kahn and Pike (2001) have also suggested that, in many ways, the individuals who drop out of treatment are virtually indistinguishable from those who do not, and that "process-based" factors, such as expectations about treatment and strength of the therapeutic alliance, may be more potent predictors of dropout than specific individual patient characteristics. Few studies have investigated the role of these process-based factors, although a poor therapeutic alliance (Piper et al., 1999) and discordance between patients' and therapists' expectations of treatment (Clinton, 1996) have been found to be associated with an increased risk of dropout in separate studies.

Investigation of these factors is important because they may be more amenable to positive intervention than individual patient characteristics, thus facilitating the development of strategies to retain people in treatment regardless of individual differences. The aim of this study was to investigate the roles of both individual patient characteristics previously identified as possible predictors of dropout (such as patient history, psychopathology, and eating disorder symptomatology) and other process-based factors (such as therapeutic alliance, patient expectations of treatment, and wait-list time) in dropout from treatment for eating disorders. The current study involved data collected from consecutive eating disorder referrals to a public outpatient clinic, the Centre for Clinical Interventions Eating Disorder Programme (CCI-ED), between 2005 and 2010. This is the only public specialist eating disorder service for youth and adults in Perth, Western Australia. The standard treatment provided at CCI-ED is Enhanced Cognitive Behaviour Therapy (CBT-E) on an individual basis (Byrne, Fursland, Allen, & Watson, 2011; Fairburn et al., 2008). Data were collected as part of ongoing research and service evaluation, in line with standard clinical practice at CCI-ED.

Method

The assessment and treatment process for patients seen at CCI-ED are described in detail in Byrne et al. (2011).

Participants

Participants were 235 patients who had received outpatient CBT-E for an eating disorder at CCI-ED. Each patient was treated by one of a team of clinical psychologists. To be considered for treatment at CCI-ED, an individual must meet the *Diagnostic and Statistical Manual* (*DSM-IV-TR*; APA, 2000) criteria for an eating disorder, and be at least 16 years old. Those who meet DSM-IV-TR proposed diagnostic criteria for binge eating disorder are excluded from the service and referred elsewhere. A total of 46 individuals were excluded from analysis, either because they were withdrawn from the program ($n = 9$) or were assessed at CCI but dropped out before attending their first treatment session ($n = 37$). This resulted in an effective sample size of 189. Participants ranged in age from 16 to 53 years ($M = 25.98$, SD = 8.54). The sample was predominantly female, including only four males (2.1%). Of the 189 participants, 34 (18.0%) had a diagnosis of AN; 76 (40.2%) had a diagnosis of bulimia nervosa (BN); and 79 (41.8%) had a diagnosis of eating disorder not otherwise specified (EDNOS). All participants had previously provided written, informed consent for their de-identified data to be used for research purposes.

Measures

Individual factors

A range of individual factors were assessed and investigated as possible predictors of treatment dropout in the current study. These factors are listed in full in Table 1. Demographic information and patient history were collected via a self-report questionnaire. Eating disorder diagnosis was established during pre-treatment assessment using the 12th edition of the Eating Disorder

Table 1
Individual factors tested in univariate logistic regression analyses.

Demographic factors	Age, sex, occupation, marital status, education
Background information	Family history of eating disorder and other mental illnesses, history of: family problems, happy childhood/adolescence, substance abuse, self-harm, suicide attempts, relationship problems, physical abuse, sexual abuse, behavioural problems, academic or learning problems, legal problems, medication use
History of the eating disorder	Duration of the problem, age of onset of eating disorder, lowest adult weight, highest adult weight, number of previous hospital admissions, number of previous treatment episodes
Current eating disorder symptoms and psychopathology (pre-treatment assessment)	Diagnosis, Co-morbid Axis 1 disorders (MINI), BMI, number of binge/purge episodes in past 28 days (EDE-Q); global EDE-Q, Depression, Anxiety, Stress Scale (DASS), Rosenberg Self Esteem Inventory (Rosenberg, 1965), Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Urneo & Villasenor, 1988), Distress Tolerance Scale (DTS), Eating Disorders Inventory – Perfectionism and Impulse Regulation subscales (Garner, Olmstead, & Polivy, 1983); Dichotomous Thinking Scale (Byrne, Allen, Dove, Watt, & Nathan, 2008), General Perceived Self-Efficacy Scale (Schwarzer & Jerusalem, 1995)