# Evaluation of An Australian Day Treatment Program for Eating Disorders

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Day treatment programs (DTP) for eating disorders are being recognised as having therapeutic benefits. However, research is needed to evaluate the effectiveness of DTP to establish their validity. This article reports on the evaluation of a pilot DTP in an Australian mental health setting, which utilised an integrative approach combining evidence-based treatments such as dialectical-behavioural therapy and intensive short-term dynamic psychotherapy offered in a group-based setting. Comparison of pre- and post-treatment data outcome measures for eating disorder pathology and comorbid symptoms was undertaken. Patient satisfaction was also evaluated using qualitative methods. Results indicated a significant reduction in depressive symptoms post-treatment, along with a high degree of satisfaction with the treatment. Limitations of this study, along with the implications of the findings and directions for future research, are discussed.

*Keywords:* eating disorders, day treatment program, treatment outcomes, clinical significance, group treatment, patient satisfaction, intensive short-term psychotherapy

A variety of multidisciplinary, group-treatment focused, day treatment programs have been developed as part of a larger model or continuum of care for eating disorders patients in different countries and healthcare settings (Zipfel et al., 2002). These programs, which are subject to ongoing structural change, vary in the breadth and intensity of treatment and size, and have been developed to facilitate 'step-down' transition from inpatient care for patients who are too incapacitated for outpatient care, or for outpatients who have deteriorated but not to the extent of requiring acute inpatient care. Weight gain and improvement in eating and mood psychopathology in anorexia nervosa (AN) have been reported in such programs (Halmi, 2009a), along with reported effectiveness in eating disorder (ED) and general psychopathology in both AN and bulimia nervosa (BN), and maintained at 18 months (Fittig, Jacobi, Backmund, Gerlinghoff, & Wittchen, 2008). Apart from one study comparing a day treatment program (DTP) with outpatient care (Kong, 2005) these outcomes have not been evaluated by randomised, controlled studies (Halmi, 2009b).



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Day treatment programs promote autonomy and provide opportunities for patients to generalise the skills learned in treatment to their daily environments (Fittig et al., 2008), which has been found to be an advantage over inpatient treatments (Zeeck, Herzog, & Hartman, 2004; Zeek, et al., 2009; Zipfel, et al., 2002). Other advantages also relate to improved chances that patients will exhibit less opposition to treatment since they are less controlled and monitored compared with an inpatient setting (Kaplan & Olmsted, 1997), and they may experience less competition and identification with the disorder (Wilson, Grilo, & Vitousek, 2007). In addition, patients are able to maintain regular contact with supportive persons who may facilitate their recovery and importantly this allows individuals to maintain social contacts (Zipfel, et al., 2002).

The need for improved treatment interventions and approaches for people with EDs was highlighted in the April 2007 issue of *American Psychologist* (Chavez & Insel, 2007). These authors identified that present-day treatments of ED are significantly limited and that identifying the underlying pathophysiology is critical for developing more effective treatments and preventive strategies. As such, a key research area needed relates to investigations assessing multimodal interventions in outpatient settings (Schaffner & Buchanan, 2008). As such, this article reports on the evaluation and outcomes of a pilot DTP for people suffering from an ED, offered through St. Vincent's Body Image and Eating Disorders Service (SVBIEDS) in Melbourne, Australia. The service was established in 2007 as a privately funded, specialist outpatient service designed to offer treatment for people of all ages with an ED diagnosis, or who had presented with disordered eating behaviours. SVBIEDS did not have a DTP, but given that emerging, albeit modest empirical evidence exists, supporting the effectiveness of this form of treatment (Franzen, Backmund, & Gerlinghoff, 2004; Kaplan & Olmsted, 1997; Kong, 2005) a DTP was introduced to the continuum of care.

Most SVBIEDS patients referred to the service come through general practitioners or family members. All patients undergo a comprehensive biopsychosocial assessment, including DSM-IV-TR diagnosis, in order to identify the appropriate medical, psychological and nutritional needs for each individual. The clinical population is heterogeneous, with a mixture of patients meeting criteria for AN, BN, or ED Not Otherwise Specified (EDNOS), along with comorbidities including mood disorders, anxiety disorders, substance abuse disorders and personality disorders. Consequently, some patients may require more intensive forms of outpatient treatment than others, contingent on the extent of their eating disorder psychopathology, as well as the comorbid conditions. As such, the DTP at SVBIEDS was designed for patients who did not require inpatient treatment, but who required more intensive treatment than individual treatment.

Previous researchers have identified that the psychopathology of an ED may include difficulties with identification and regulation of emotional states (alexithymia), as well as problems associated with emotion dysregulation (Becker-Stoll & Gerlinghoff, 2004). Consequently, the unique features associated with this DTP were that the program was designed specifically to help patients overcome problems associated with the emotional and behavioural difficulties that were linked to their ED psychopathology.



## *The Day Treatment Program*

A number of reviews have been published that demonstrate the similarity and differences between DTPs (Lammers, Exterkate, & De Jong, 2007; Zipfel, et al., 2002). In general, these programs are evidence-based, multimodal, therapeutic programs designed to treat both the behavioural symptoms and the underlying psychopathology commonly associated with EDs. This DTP was similar to those, but differed in

that it was shorter in length (i.e., ran over 2 days a week for 4 weeks) and was more specifically focused on targeting the emotional experiences of patients and undoing the unhealthy coping mechanisms used to avoid emotional experiences.

To achieve this, group-based approaches were emphasised due to their established effectiveness on patients with bulimic tendencies (Fettes & Peters, 1992) and with young women in general (Kivlighan, Coleman, & Anderson, 2000). Further, it has also been shown that the link between social anxiety and disordered eating is mediated by expressive suppression (McLean, Miller, & Hope, 2007). As such, it was expected that group work could be helpful in addressing these factors by encouraging the expression of negative affect rather than directing it toward one's body. Further, this DTP combined nutritional, psychological and psychoeducational components to improve participants' physical health, to increase motivation to change (Garner & Garfinkel, 1997; Prochaska, 1994) and to improve social functioning and psychological wellbeing. Further, consideration of the comorbid symptom profile of patients was taken into account and interventions were designed to address common comorbid difficulties, such as problems with emotional dysregulation that have previously been shown to contribute to ED behaviours (Lavender & Anderson, 2010) and seen to be associated with mood, anxiety and personality disorders.

### *Nutritional Interventions*

The nutritional components included individual nutritional guidance and group-based nutritional education, along with meal support to address the eating disordered behaviours *in vivo*. Additionally, behavioural interventions were provided through food challenges, which were group outings to help reinforce the opportunities to practise eating from an increased variety of food groups in social settings outside of the therapeutic environment. These groups were based on exposure-response prevention principles that have been found to be useful in the treatment of ED (Hetherington & Rolls, 2001; Wilson, Eldredge, Smith, Niles, & Rachman, 1997).

### *Psychological Interventions*

Dialectical Behaviour Therapy (DBT) has been found to be effective in helping reduce emotional distress and self-harm behaviours in people from a range of different diagnostic categories, including ED (Palmer et al., 2003). Therefore, to assist patients in overcoming the problems associated with their emotional functioning, a modified version of the emotion regulation skills group (ERSG) was adapted from the DBT skills training manual (Linehan, 1993) and from the DBT for BN text (Safer, Telch, & Chen, 2009). This component was incorporated into the DTP to help patients increase their emotional awareness and to decrease the impact of behaviours associated with emotion dysregulation.

Participants also took part in a behavioural chain analysis group (CAG) that was designed to help patients identify the causal mechanisms that lead to their use of self-destructive behaviours (e.g., bingeing). As patients increased their awareness and understanding of internal (emotional) and/or external (environmental) triggers, and developed a range of alternative responses to ED triggering behaviours along with an awareness of how and when to use these alternative behaviours, it was expected that the frequency and severity of unhealthy ED behaviours would decrease.

These interventions were based on cognitive–behavioural therapy (CBT) principles. However, researchers have found limitations in using CBT for EDs, in that around 50% of ED patients respond to CBT (Ball & Mitchell, 2004). Further, it has

been suggested that individuals diagnosed with both an ED and personality disorder do particularly poorly with a CBT approach (Cooper, Wells, & Todd, 2004). Given that the ERSG and the CAG are CBT techniques, other techniques were utilised to increase the chances of recovery. Brief dynamic interventions have been utilised in treating EDs and found to be effective in that it can help neutralise defences and resistances to treatment and aids in accessing key conflicts and characterological problems commonly associated with ED psychopathology (Steiger, 1989). Specifically, principles from Davanloo's (1995, 2005) intensive short-term dynamic psychotherapy approach, perhaps among the best researched of the brief psychodynamic models, were utlilised. Davanloo's method is focused on clarification and challenges to the defences, mobilisation of underlying emotions, and working through these emotions. This method is now supported by over 17 studies (six randomised controlled trials, two controlled trials, and nine case series) that have examined individuals with somatic problems, personality disorders, anxiety disorders, treatment-resistant depression, eating disorders and mixed problems (Leichsenring, Rabung, & Leibing, 2004; Messer & Abbass, 2010). As such, it was suggested that incorporating these techniques into a psychotherapy group would provide another mechanism of therapeutic change aimed at targeting the underlying psychopathology. Previous researchers have found that severely disturbed patients can be treated in a psychodynamic-focused day program with similar results at discharge to patients in inpatient settings (Zeeck et al., 2004). Therefore, the psychotherapy group was focused on undoing the barriers to emotional experiences, and to develop a greater understanding of the underlying dynamics that contributed to the development and maintenance of ED symptoms. By adding this group, patients also have the opportunity to experiment with expressing emotions in a direct and more adaptive way (Schaffner & Buchanan, 2008). Further, it was expected that patients would be helped in addressing the difficulties associated with their alexithymia and emotional dysregulation by increasing self-awareness into how the emotional avoidance leads to the use of self-destructive and/or self-sabotaging mechanisms (Della Selva, 1996), such as bingeing or restrictive behaviour.

In addition to these groups, a creative-expressive group was also offered to provide participants with an opportunity to express their emotional experiences through mediums other than verbal language, as these have been found to be helpful for patients with an ED (Rust & Dokter, 1994). In addition, brief meetings at the start and end of each day were held with all clinical staff and patients together to ensure openness and transparency.

### *The Day Treatment Team*

It has been stated that it is essential that staff in an outpatient eating disorders program function as a cohesive, supportive group, with frequent communication, agreed upon treatment goals, and clearly established methods of intervention (Kaplan & Olmsted, 1997). For this reason, the program uses a treatment team approach. The treatment team consisted of dieticians, psychologists, and external primary health care providers. The team met weekly to consult with one another throughout the DTP regarding patients' treatment. This approach aids the team in staying cohesive, receiving support from one another, keeping open communication among the staff, and allowing discussion of each patient in the program from multiple perspectives (Schaffner & Buchanan, 2008). Team meetings were structured to prioritise discussion of any issues that needed immediate attention (e.g., considera-

tion of referring someone for inpatient care, significant conflicts in group therapy and other risk-related concerns).

Although efficacy studies are usually regarded as the gold standard of treatment research, the advantages of effectiveness trials are obvious. Specifically, effectiveness trials are thought to generate more robust and generalisable results due to higher resemblance to everyday life (Glasgow, Lichtenstein, & Marcus, 2003; Nash, McCrory, Nicholson, & Andrasik, 2005; Nathan, Stuart, Dolan, & Kazdin, 2003). Accordingly, the primary objective of this study was to examine the short-term effectiveness of this pilot DTP by comparing pre- and post-treatment data on several outcome measures. It was hypothesised that the patients who attended the DTP would experience decreased eating disordered symptoms and psychosocial impairment related to their ED behaviours, and decreases in the level of psychopathology when evaluated at post-treatment. However, it was hypothesised that patients' weight would remain stable due to the brief time frame of the pilot DTP.

A secondary objective of this study was to evaluate the feedback from participants about their experience in the DTP, in order to continue refining and developing the treatment. Consumer satisfaction and consultation processes are crucial elements of 'quality assurance', and the views of consumers are seen as an important component in the development of clinical practice guidelines (Swain-Campbell, Surgenor, & Snell, 2001). The focus on consumer ratings in the field of ED is highly important, as work in this field poses additional challenges for clinical services, in that up to half of the patients that present for treatment have been reported to prematurely cease contact following assessment (Button, Marshall, Shinkwin, Black, & Palmer, 1997; Vandereycken & Pierloot, 1983). Unlike most other psychiatric populations, the core features of an ED can be highly valued by the patient (Serpell, Treasure, Teasdale, & Sullivan, 1999) and consequently difficult to treat. Therefore, identifying the components that contribute to increased motivation to participate would be helpful in designing a program that patients would feel motivated to participate in. Even experienced clinicians underestimate the value of core components of treatment for patients they know well (Noble, Douglas, & Newman, 1999), suggesting that clinical interpretations of client perspectives may be inaccurate (Swain-Campbell et al., 2001). As such, the inclusion of measures designed to evaluate consumer satisfaction and participation in this program are important in evaluating the effectiveness of the pilot DTP and in providing information about the effectiveness of the core components offered to participants.

## Method

### *Participants*

The six participants who took part in the DTP were female and the age range was 18 to 39 years ($M$ = 25.50 years, $SD$ = 7.45). The Body Mass Index (BMI) was calculated for each participant pre-treatment and ranged from 16.7 to 27.5 kg/m$^2$ ($M$ = 23.08, $SD$ = 4.04). Of the six participants, three met DSM-IV-TR criteria for EDNOS (50%), two for BN (33%) and one for AN (Restrictive Type) (17%). The average length of illness was approximately 9.6 years, with 3 of the patients having been hospitalised at some time during their illness. The average number of admissions for these patients was 1.7. Comorbid diagnoses included depression, substance abuse, generalised anxiety disorder, and borderline personality disorder. All of the

patients had been receiving outpatient treatment prior to admission into the DTP, which included the use of psychotropic medications.

### *Materials*

Several psychometrically validated scales were included in the protocol to obtain data regarding the types and severity of psychological symptoms experienced, along with the degree of related impairment. Each scale was completed pre- and post-treatment (at 1 month). This data was grouped in order to protect the privacy of participants.

Participants completed the Eating Disorder Examination Questionnaire (EDE-Q), a 28-item, self-report measure that assesses attitudes, feelings, and behaviours related to eating and body image over the past 28 days (Fairburn & Beglin, 1994). The EDE-Q measures criteria for clinical EDs and yields a Global score and four subscale scores: Eating Restraint, Shape Concern, Weight Concern, and Eating Concern. The Global score is the average of the four subscale scores. Internal consistency reliabilities have been reported as acceptable for women in the age group of the participants in the DTP. The four subscales of the EDE-Q have been found to have good internal reliability and test–retest reliability (Luce & Crowther, 1999).

The Clinical Impairment Assessment Questionnaire (CIA) (Bohn & Fairburn, 2008) is a 16-item, self-report measure of the severity of psychosocial impairment due to ED features. The 16 items cover impairment in the domains of life that are typically affected by ED psychopathology: mood and self-perception, cognitive functioning, interpersonal functioning, and work performance. The purpose of the CIA is to provide a simple single index of the severity of psychosocial impairment secondary to ED features. The CIA is designed to be completed immediately after filling in the EDE-Q, in order to ensure consumers have their ED features at the 'front of their mind' when filling in the CIA. Internal reliabilities have been examined and were found to be appropriate (Reas, Oyvind, Kapstad, & Lask, 2010).

The Brief Symptom Inventory (BSI) is a 53-item self-report symptom inventory designed to reflect psychological symptom patterns (Derogatis, 1975). Each of the BSI items are rated on a 5-point scale of distress ranging from 0 (*Not at all*) at one end, to 4 (*Extremely*) at the other. The BSI is scored and profiled in terms of nine primary symptom dimensions and three global indices of distress. For the purposes of this pilot only the Global Severity Index (GSI) was used as it provides an overall measure of the psychopathological status of the individual and provides a more general indication of psychological wellbeing. The BSI has good internal reliability showing an average rating above .70 for each of the scales and subscales (Boulet & Boss, 1991; Derogatis, Fitzpatrick, & Maruish, 2004).

The Beck Depression Inventory — Second Edition (BDI-II) is a 21-item self-report instrument for measuring the severity of depression in adults and adolescents aged 13 years and older (Beck, Steer, & Brown, 1996). The BDI-II is scored by summing the ratings for the 21 items. Each item is rated on a 4-point scale ranging from 0 to 3. The maximum total score is 63. Cut scores have been developed with groupings ranging from minimal (0–13), mild (14–19), moderate (20–28), and severe (29–63). The authors have reported both the average reliability coefficients (alpha = .86) and the test–retest reliability (alpha = .90) as acceptable.

In order to evaluate participant satisfaction, a scale was specifically designed for this study. This questionnaire consisted of 20 questions, of which 14 were quantitative and six were qualitative. On the quantitative items, participants were asked to rate their overall experience in the DTP ranging from 1 (*Unhelpful*) to 5 (*Helpful*),

followed by ranking each of the components in terms of helpfulness and difficulty. The open-ended questions were included to provide an opportunity for participants to include feedback about their experience that would not be otherwise available through the quantitative items.

The internal consistency reliabilities for this study were computed using Cronbach's alpha coefficients and are presented in Table 1. The scale reliabilities were consistent with previous research and were deemed to be acceptable.

### *Procedure*

The St Vincent's Hospital Human Research Ethics Quality Assurance Sub-Committee provided approval for the pilot study. Prospective participants were recruited via internal advertising to people currently in treatment at SVBIEDS and externally through a small referral network, including the Eating Disorders Foundation of Victoria (a non government organisation which provides support, information and advocacy for those affected by eating disorders). The pilot was offered over 4 consecutive weeks in January 2009 and participants were required to attend 2 days per week.

## Results

The results section is divided into two parts. The first section reports on the results regarding the pre- to post-treatment changes in psychological and behavioural symptoms reported by participants. The second section reports on the results related to participant satisfaction with the DTP.

**TABLE 1**

Cronbach's Alpha Coefficients

| Scale | Subscale | Time 1 (n = 6) | Time 2 (n = 5) |
|---|---|---|---|
| EDE-Q | | | |
| Global score | .92 | .83 | |
| Eating restraint | .90 | .86 | |
| Eating concern | .90 | .69 | |
| Weight concern | .85 | .50 | |
| Shape concern | .69 | .60 | |
| CIA | | .94 | .96 |
| BSI | | | |
| GSI | .96 | .98 | |
| Somatisation | .93 | .82 | |
| Obsessive–Compulsive | .78 | .88 | |
| Interpersonal-Sensitivity | .64 | .95 | |
| Depression | .96 | .95 | |
| Anxiety | .93 | .91 | |
| Hostility | .07 | .72 | |
| Phobic anxiety | .57 | .89 | |
| Paranoid ideation | .70 | .85 | |
| Psychoticism | .73 | .85 | |
| BDI-II | | .92 | .91 |

### *Changes in Pre- to Post-Treatment Outcomes*

Five of the six consumers completed the post-treatment measures within a period of time that enabled evaluation of the changes in psychological symptoms immediately after their participation in the DTP. Therefore, the results are based on the data obtained from these participants only. Changes in pre- to post-treatment measures were analysed using nonparametric methods (Wilcoxon-signed rank test) through SPSS (16.0).

The mean BMI of participants at Time 1 (mean = 22.20, *SD* = 3.85) did not differ significantly from the mean BMI of participants at Time 2 (mean = 22.22, *SD* = 4.06). Table 2 presents the results from the outcome measures used in this study. The results indicate that there were no significant changes in the EDE-Q and CIA scores. However, there was a trend towards a slight increase in the global scores of the EDE-Q from pre- to post-treatment and a trend indicating a slight reduction in the degree of shape concern for participants. The data also showed a trend towards a slight decrease in all of the ED behaviours, except for the frequency of purging

**TABLE 2**

Outcome Measure Results from Pre- to Post-Treatment

| Scale | Time 1 | | Time 2 | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| EDE-Q | | | | |
| Global score | 3.86 | 1.14 | 4.02 | 0.88 |
| Eating restraint | 2.76 | 1.91 | 3.12 | 1.45 |
| Eating concern | 2.84 | 1.67 | 3.40 | 1.32 |
| Shape concern | 5.25 | 0.79 | 4.70 | 0.83 |
| Weight concern | 4.60 | 1.09 | 4.84 | 0.56 |
| Binge frequency | 7.80 | 9.18 | 6.80 | 9.04 |
| Purge frequency | 9.20 | 11.80 | 11.00 | 15.17 |
| Laxative use frequency | 8.00 | 17.89 | 4.00 | 8.94 |
| Exercise frequency | 11.20 | 12.46 | 10.00 | 10.77 |
| CIA | 37.00 | 10.05 | 31.60 | 13.07 |
| BSI | | | | |
| GSI | 61.00 | 9.25 | 56.40 | 9.45 |
| Somatisation | 58.40 | 10.69 | 57.40 | 7.34 |
| Obsessive–compulsive | 57.80 | 7.53 | 53.60 | 8.33 |
| Interpersonal-sensitivity | 53.20 | 3.27 | 57.40 | 9.63 |
| Depression | 60.40 | 8.44 | 54.80 | 10.18 |
| Anxiety | 54.20 | 10.62 | 51.80 | 7.16 |
| Hostility | 54.60 | 5.98 | 52.00 | 5.29 |
| Phobic anxiety | 60.00 | 7.31 | 57.60 | 8.17 |
| Paranoid ideation | 54.40 | 8.20 | 50.00 | 6.44 |
| Psychoticism | 66.00 | 9.54 | 60.60 | 9.29 |
| BDI-II | | | | |
| | 39.20 | 11.78 | 31.20 | 10.92 |

episodes. Results for BSI scores did not reveal any significant change in scores over time. However, trends in the data showed a decrease in all areas of psychological impairment after treatment except on the domain of Interpersonal-Sensitivity. Results for BDI-II scores revealed a significant change in scores over time. This change indicated there was a decrease in the levels of depression after treatment using a Wilcoxon Sign Test ($W = -2.032$, $p < .05$).

### *Participants' Satisfaction Ratings*

The following section reports on the results relating to the consumer satisfaction and participation in the DTP. Data regarding participant satisfaction ratings were analysed using FREQUENCIES in SPSS (16.0) for the close-ended questions and a qualitative research technique (content analysis) for the open-ended questions. Table 3 presents the data related to the participants' overall satisfaction with the program. These results indicate that participants rated their overall experience in the program positively.

Participants were also able to comment on their overall experience in the program. In response to the open-ended question regarding participation in the program participants stated:

> Just thank you. I am so much further along in my journey!
>
> Invaluable experience. Learnt so much and came so far.

Table 4 presents the data regarding the participants' rankings of the helpfulness and difficulty level of the core components offered in the program. As can be seen from

**TABLE 3**

Participants' Overall Treatment Ratings

| Consumer rating | Mode |
|---|---|
| Helpfulness | 5 |
| Relevance | 4 |
| Satisfaction | 5 |
| Recommendation | 5 |
| Continuation | 5 |

**TABLE 4**

Participants' Ranking of Core Components

| Consumer ranking | Helpfulness | Difficulty |
|---|---|---|
| Group psychotherapy | 1 | 1 |
| Emotion regulation | 2 | 4 |
| Chain analysis | 3 | 3 |
| Nutrition education | 4 | 7 |
| Food challenges | 5 | 2 |
| Art group | 6 | 5 |
| Meal support | 7 | 6 |

these results, the psychological interventions offered were ranked as most helpful, followed by the nutritional interventions.

Participants ranked the Group Psychotherapy sessions as the most helpful component and the following comments were made in relation to this finding:

> Issues arose during psychotherapy that I had no idea I was suffering as a result of, and that I had no idea other people were suffering from to such an extent.
>
> I found it helpful to talk with others about the experience of having an eating disorder and to hear about others' experiences. It helped me feel validated in what I was experiencing.
>
> Group psychotherapy left me knowing that there were others that felt the same that I did and helped me gain more insight into myself.

Further, in response to the reason why consumers ranked Group Psychotherapy as the most difficult component participants made the following comments:

> Because you had to really start feeling things and looking into things, I often just push away. It was very confronting and at times exhausting. It was also really hard watching others struggle throughout the sessions.
>
> I think for the same reason it was the most helpful. It was very challenging that it was 'up to us', particularly earlier in the program.
>
> Confronting. So much to say. Didn't want to disclose too much. Didn't know where to start.
>
> I found group psychotherapy very emotionally draining and quite intense, more so than any of the other sessions.
>
> Group psychotherapy stirred up a lot of inner feelings I had managed to suppress and avoid and was uncomfortable to deal with.

Participants were also asked to rate each of the core components in terms of their level of helpfulness. Table 5 presents the data regarding these ratings. As can be seen from these results, the core components were rated positively in terms of their overall helpfulness by the participants.

Participants were also asked to provide suggestions for improvement of the program. In response to this, two themes emerged from the data. The first theme was labelled 'Longer Program':

> Longer duration.
>
> A more in-depth, longer program.

The second theme that emerged related to restructuring the Food Challenges component in order to provide greater emotional support, and was labelled 'Support Around Food Challenges':

**TABLE 5**

Participants' Ratings of Core Components

| Helpfulness | Mode |
|---|---|
| Meal support | 5 |
| Group psychotherapy | 5 |
| Emotion regulation | 5 |
| Art group | 4 |
| Nutrition education | 4 |
| Chain analysis | 5 |
| Food challenges | 5 |

> More support after food challenges would be good — a few of us struggled after them.
>
> From my own point of view I think it would have probably been better to have the food outings in the morning rather than in the afternoon … I think it was problematic doing it in the afternoon because people are eating 'trigger' foods and then pretty much going straight home to be left to their own devices. Doing it in the morning would allow for greater support and much less risk of bingeing, etc.

## Discussion

The DTP was specifically designed to address two main issues (i.e., emotional dysregulation and eating disorder-related behaviours). These results indicate that the pilot DTP described above appears to be partially effective in decreasing the behaviours and psychosocial impairment associated with ED symptoms. Furthermore, the results indicate that the DTP was partially effective in improving psychological wellbeing and treating the comorbid mood-related difficulties over a 1-month period, which can be seen to indicate that targeting the emotional difficulties experienced by patients may lead to reductions in psychopathology. Additionally, participants rated the program positively and indicated that each of the core components was helpful in their improvement. Recommendations for improvements were identified by participants, with a program of longer duration being thought to be helpful, and changes to the structure of the Food Challenges to assist participants in dealing with the anxiety that arose from this intervention.

The hypotheses for the first goal of this study were partially supported. A non-significant reduction in the frequency of all ED behaviours, excluding the frequency of purging behaviour, was found, along with a non-significant reduction in the psychosocial impairment related to the ED symptoms. While these findings were not statistically significant following the brief, 4-week period of the DTP, they were of clinical significance in that patients reported a reduction in the frequency of several ED related behaviours including the use of laxatives, and bingeing behaviour. Further, the degree of psychosocial impairment associated with the ED symptoms reduced indicating that the degree of alienation and isolation associated with the disorder was reduced. Similarly, the slight, but clinically significant, reductions in the BSI scores, along with a statistically significant reduction in the BDI-II scores from pre- to post-treatment, are suggestive that the DTP was able to achieve some reduction in the level of psychopathology. Additionally, there was no significant change in the mean BMI scores of patients as hypothesised. Overall, the structure of the DTP piloted appears to be clinically sound in its orientation, with the preliminary data indicating that a longer version of this program may result in more improved outcomes. As such, it is recommended that implementing and evaluating this form of DTP would be useful in providing further evidence for the effectiveness of this model of treatment.

With regard to the second goal of this study, participants reported the DTP as a helpful component in their recovery from an ED. Furthermore, it was identified that the aspects of the program that were rated as most helpful were the psychological interventions, followed by the nutritional interventions. Overall, participants rated these interventions as helpful in assisting them to overcome their eating disordered behaviour and the underlying psychological mechanisms that both affected and were affected by their ED behaviour. Consequently, these findings appear to indicate that participants were satisfied with the balance between the psychological interventions and the nutritional interventions in general. However, a slight modi-

fication to the structure of the program appears to be warranted in relation to the Food Challenge component. It was identified that participants wanted greater emotional support after these interventions. Overall, the findings appear to provide evidence that participants identified the program to be helpful and relevant. As such, the population targeted for this pilot appeared to be appropriate, and it is suggested that this model also enhances motivation for treatment.

The findings from this study suggest that by focusing on the underlying psychological and behavioural mechanisms associated with ED psychopathology, an initial increase in feelings related to eating and body image may occur, as evidenced by the increase in the global EDE-Q score, while the degree of impairment from these symptoms may reduce. These findings were not unexpected, as it is known that the initial dosage response to interventions for EDs can result in an increase of symptoms due to their egosyntonic nature.

The preliminary data of this study can be seen to suggest that the pilot DTP, with its enhanced focus on addressing the emotional dysregulation associated with comorbidity, may be an effective program for helping people overcome the behaviours associated with their ED and dealing with the underlying psychopathology. Participants also described their experience in the DTP as being a positive experience and indicated that they would have continued if the option were available. It is therefore suggested that the structure of the pilot DTP is suitable for the treatment of people with ED problems.

There are several limitations to this study worth noting. First, the absence of a control group limits the generalisability of the findings to other ED populations and treatment settings. Second, the small sample size means that meaningful interpretation regarding the outcome measures is limited. While the participants' ratings of the overall program and the core components were favourable, it was not possible to identify differences in the effectiveness of the individual core components included in the DTP. It is also unclear whether gains were maintained due to the absence of follow-up investigations. Further research regarding the effectiveness of the DTP, offered over a longer duration, is required to confirm the effectiveness of this DTP. Additionally, increasing the sample size and including a control group (e.g., a matched group randomised to outpatient treatment without a DTP component) would assist in improving the power related to the statistical findings and to evaluating the efficacy of the DTP when compared with other forms of treatment. Participants also require follow-up post-completion of the DTP to determine whether the effects of treatment are maintained over time. The diagnostic mix of patients in this study makes it difficult to identify if people from different diagnostic categories responded differently to this form of DTP. Therefore, further consideration should be given to decisions about separating people with different ED diagnoses in order to provide opportunities to evaluate the effectiveness of this DTP on people from different diagnostic groups. Further, the average age of participants was above those normally reported in DTP, along with an average length of illness of 9.7 years. Previous research has identified that age and length of illness are negatively correlated with good outcomes. Therefore, it is suggested that further evaluation be undertaken to identify the effectiveness of this form of DTP from a greater cross-section of people suffering from an ED in order to identify whether this program is better suited to people with more or less severe forms of psychopathology.

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