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BMJ Open Patient expectations of a new treatment for eating disorders combining guided physical exercise and dietary therapy: an interview study of women participating in a randomised controlled trial at the **Norwegian School of Sport Sciences** 

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#### ABSTRACT

**Objectives** To study the expectations women with bulimia nervosa (BN) or binge eating disorder (BED) had to a new treatment programme based on guided physical exercise and dietary therapy.

Design and participants Semistructured interviews were conducted with six women with BN and four women with BED following a group-based therapy programme. Transcribed interviews were analysed using a textcondensing analytic approach.

**Results** The analysis resulted in three main categories, that is, expectations about (1) increased knowledge, (2) symptom changes and (3) therapeutic expertise. The women expected that learning more about nutrition and physical exercise would give them more energy, less fear of food, physical and mental symptoms and a negative body focus. They also expected therapists to be professional and competent, and able to take care of them. **Conclusion** The overall high and positive treatment expectation can, to some extent, reflect enthusiasm about a new and innovative approach to treatment. However, the results also reflect generic and highly adequate outcome expectations, which for the purpose of effectiveness should be incorporated into all treatment efforts at least for patients with eating disorders.

Trial registration number NCT02079935; Results.



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### INTRODUCTION

Eating disorders (EDs) like bulimia nervosa (BN) and binge eating disorder (BED) affect about 2%-3% of women and can also occur in men. Despite a high risk of somatic and psychological adversities, it has been estimated that only about two-thirds of individuals with BN or BED actually seek treatment<sup>2</sup> for reasons like low motivation, shame, and fear of stigma.3 The threshold for seeking treatment may thus be high, and for this reason, treatments which are offered

# Strengths and limitations of this study

- ► This is one of very few qualitative studies in the eating disorder literature exploring patients' expectations to a particular treatment programme.
- The results suggest important generic factors from a patient perspective to include when developing treatment programmes for eating disorders.
- Steps were taken to limit the impact of bias introduced by the retrospective recall of expectations
- A more clear bias was introduced by the fact that therapists in the treatment programme also interviewed the participants.

should meet patients' expectations in terms of symptom reduction as well as needs and concerns raised as a consequence of the ED.

Treatment outcome expectations reflect patients' prognostic beliefs about the consequences of engaging in treatment.<sup>4</sup> Treatment expectations are one of the common factors in psychotherapy which have been less studied in general,<sup>5</sup> as well as within the field of EDs. One meta-analysis<sup>4</sup> comprising patients suffering from a wide range of mental disorders provided evidence for a small but significant effect of positive outcome expectations on treatment outcome. Later studies also of such mixed clinical samples support the generic importance of positive treatment expectations. Such expectations have been found to mediate the therapeutic alliance, which contributes to patients feeling positive at the end of treatment sessions and which in return, facilitate improvements in symptoms and overall functioning<sup>6-8</sup> as well as treatment retention and effectiveness.<sup>5</sup>

A most robust finding in general is the importance of a concordance between initial expectations and actual treatment outcome experiences. 9-13 A concordance is important as previous studies of eating disordered patients<sup>11</sup> 12 as well as other patient groups<sup>13</sup> have shown that a concordance between initial expectations and experiences of treatment content and outcome may increase overall treatment satisfaction which in return, may promote recovery maintenance. Conversely, a misfit between expectations and actual treatment experiences increases the risk of treatment dissatisfaction and dropout.<sup>14</sup> Moreover, knowledge about treatment expectations serves the purpose of capturing and adjusting unrealistic expectations, which are out of proportion compared with the purpose of a treatment and the strategies to reach these purposes.

The nature of expectations may be generic in nature, but may also mirror the kind of treatment patients are seeking. 15 Less is known about the nature of ED patient's expectations prior to treatment, <sup>16</sup> and what is known can mostly be inferred from studies on patients' treatment experiences. Previous studies indicate that patients with ED expect therapist competence on these disorders as well as good information about the content and purpose of the therapy in question. 12 14 Such studies indicate that patients prefer to receive treatment from specialists on ED who take a holistic approach to treatment that emphasises putting ED symptoms into the context of underlying psychological and emotional problems.  $^{\rm 12\ 15\ 17\ 18}$  In addition, the personal qualities of therapists have been highlighted, like being understanding, non-judgemental, empathetic and supportive in the therapeutic relationship, and thereby creating a warm, caring atmosphere that makes them feel welcome and taken care of. 17 19-22 Furthermore, experiencing therapist support in working with strategies to enhance control over ED symptoms has been found to predict overall treatment satisfaction.<sup>14</sup> Information and competence may then buffer an ambivalence to change that originates in the egosyntonic nature of EDs as well as the fact that many patients with BN and BED have experienced treatment failures. In addition, knowledge about treatment expectations may provide important feedback with respect to treatment adjustments to accommodate for patients' need. 9-11 Such feedback may be particularly important when developing new therapies. In the present study, we explore what kind of expectations women with BN and BED have to a new treatment programme combining physical activity and nutrition therapy.

#### **METHODS**

#### Study setting and design

This current study was situated at the Norwegian School of Sport Sciences (NSSS) as a part of a randomised controlled trial (RCT) testing whether a treatment combining guided physical exercise and dietary therapy within a group therapy setting, that is, the PED-t-programme<sup>23</sup>

would perform equal or better than standard cognitive-behavioural psychotherapy for BN and BED. Participants in the current qualitative study of the patients' expectations to the treatment adhered to the inclusion criteria of the RCT study,<sup>23</sup> that is, age 18–40 years, a DSM-5 diagnosis of BN or BED, not suffering from other mental disorders, like major depression, psychosis or personality disorders, no other treatments for ED concurrently or during the past 2 years before entering the current study.

A phenomenological-hermeneutical approach underpinned the current study, which was one of the two within the overarching PED-t study. <sup>23</sup> In these qualitative studies, we decided to use one interview guide covering two main topics, that is, treatment expectations and treatment experiences, respectively. Alas, for practical reasons and reasons related to the logistics in running the RCT study <sup>23</sup> it was not possible to conduct the interviews about treatment expectations before the treatment started.

### **Recruitment and participants**

The pool of eligible women to the current study was those 60 who had completed the PED-t treatment arm of the RCT.<sup>23</sup> They had a mean duration of 12.9 years (SD 7.5) with BN (65.4%) or BED (34.6%), and a body mass index of 25.3 (95% CI 23.9 to 26.8). The last author provided 10 woman with written study information and request participate. The sampling procedure was random, with the only criterion to include patients with either BN or BED. The final sample of 10 (mean age 25.5 years; range 21–34 years) who responded positively was contacted by the third and fourth authors to make appointments for the interviews.

#### **Interviews**

The interviews took place 1–2 months after finishing the PED-t treatment. All interviews were carried out by the third and the fourth authors (TS and SS) at the study cite; the NSSS. The interviewers were therapists in the RCT and had a professional background in nutrition and sports medicine, and had knowledge in the field of ED. The therapists were known for the participants before the interview as their roles as therapists. In addition, the fifth and the last authors were therapist and project leader in the RCT.

The semistructured interview guide was composed based on the research question, and conducted based on the research group's expertise and extant competence in the ED field as well as with respect to qualitative methods. The semistructured interviews were carried out as conversations about the participant's expectations about the PED-t programme, and started with the overall question 'Can you tell about your general expectations to participate in the treatment programme?' A further list of follow-up themes are listed in box 1.

Then, specific questions were asked with respect to expectations related to physical activity and dietary therapy. Follow-up questions were freely adjusted to respond to the participant's responses. The interviews

# Box 1 List of follow-up themes to the general questions in the interviews

Overall expectations to participate in Ped-t Expectations to the physical activity Expectations to dietary therapy Other expectations

lasted about 1 hour, was audio taped and then the interviews were transcribed verbatim. When 10 interviews were conducted the research group found the material to be rich and sufficient to serve the purpose of elucidating the research questions. We conducted no repeated interviews.

### Patient and public involvement

Focus and aims regarding the overarching RCT study,<sup>23</sup> which the current study was a part of, the focus and aim of the study were discussed with coresearchers who were members of a local patient organisation on ED. Apart from that, there were no user involvement with respect to the planning, recruitment or conduction of the present study. However, through the open access platform patients will have full access to the findings and how they were interpreted.

#### **Ethical considerations and data security**

The 10 patients received written and oral information about the study's purpose, confidentiality, the principles of voluntary participation and the right to exit the study at any time. All the participants gave their written consent to participate, and pseudonyms served to anonymise them in the current paper. The consolidated criteria for reporting qualitative research (COREQ)<sup>24</sup> were used to ensure the quality of the research process and its reporting.

#### **Data analysis**

The analysis was informed by the principles of systematic text condensation<sup>25</sup> which is a four-step, explorative and descriptive method for thematic analysis of qualitative data. The first step comprised reading and getting an overview of the whole data material of transcribed interviews, while consciously bracketing preconceptions.<sup>25</sup> In the second step the units of meaning were identified, coded and grouped related to the expectations to participate in the treatment programme. Third, the contents of the coded groups were condensed, and quotes were selected to illustrate the meaning of each group. In the fourth step, descriptions were summarised and the categories were named. The first (GP) and the third author (TS) conducted the analysis, while all coauthors validated the systematic text condensation process until consensus was reached. The final descriptions were thus a result of a hermeneutical process moving between the transcripts, the findings, the literature and relevant theory, to secure that the constructed descriptions were grounded in the empirical data. There was no member validation.

#### **RESULTS**

Complete or at least partial recovery was the overarching expectation by the participants before entering the treatment programme. The analysis resulted in three main categories, that is, expectations about (1) gaining knowledge in order to reduce fear of food consumption, and to increase the understanding of the importance of physical activity and nutrition to enhance quality of life, (2) reducing the frequency of overeating and/or binges as well as overall psychological sequelae of their ED and (3) therapeutic expertise on EDs.

#### **Expectations of increased knowledge**

This category captured an overall wish for knowledge about food, nutrition and physical activity in order to enhance the overall quality of life and the ability to enjoy physical activity. All participants reported having struggled with these issues for years in terms of excessive and compulsive exercise, overeating and fear of food.

# **Expecting a reduced fear of food**

The participants reported a history of fear of food, and especially, the intake of carbohydrates was reported as frightening. In addition, they voiced a fear of becoming fat as well as being anxious about not knowing exactly the effects of various foods on their body and body composition.

All participants expected to acquire knowledge about nutrition and nutritional needs. Moreover, they expected to learn more about what is customary and what is healthy to eat in order to get rid of thoughts about food as harmful to one's body. However, variations in the levels of expectations with respect to gaining less fear of food depended a bit on to what degree harmful eating patterns had become ingrained in the daily life. However, all participants expected that the knowledge provided by credible sources (ie, the experts on nutrition) would help them to acquire a better eating behaviour to a more rapid recovery from future relapses, and to actually increase their energy intake to feel better and not worse. One of the women expressed these issues in the following way:

I hoped I would be able to eat normal food in a dinner party, or in another social setting, without waking up the day after feeling fat... I wanted to re-learn how to eat normally, I could not remember how it was and what it means to have a normal diet. I have not eaten a slice of bread for three years. (Elizabeth/26 years, BED)

# Expectations regarding increased energy as a result of knowledge about physical exercise

Before entering the study, all physical exercise was a burden, and something that they did only to compensate for the energy surplus due to overeating and to adhere to a slim body ideal. Some of the participants were sceptical to the physical exercises in the treatment programme, and reported a fear that the physical exercise would make them feel tired or that it would make their bodies 'bigger'. However, most of them were looking forward to acquire a better understanding of the benefits of physical exercise. In particular, they expected that a clearer understanding of the theory of exercise and physical activity in combination with the understanding of sound nutrition. They expected that this understanding would help them to better structure their daily life and the everyday routines, and that this would help them to recover from the ED. Many, however, voiced a fear of not performing the exercises in a 'correct' manner and expected to learn the right techniques in order not to make a fool of themselves when entering a gym. One of the women told about her negative attitudes towards physical activity before treatment and her expectations of the treatment programme in the following way:

Before I entered the treatment I was training excessively and could wake up 8 in the morning and walking around a lake for twelve hours. Then I went home, binged and purged, and with the same pattern repeated the next day. ... I became completely exhausted and lost all energy, you get nothing out of it. My expectation was to learn more about healthy physical exercise and diet would help me to make better choices for myself. (Vivian, 29 years, BN)

# **Expectations of symptom changes**

This category captures a general expectation about the expectancy to experience less ED-related mental and physical symptoms.

# Expecting to experience less physical and mental symptoms

All women expressed that they expected the treatment programme to provide symptom change. For some, it was most important to get help to reduce or stop troublesome patterns of binging and overeating, for others it was more pressing to become less shameful and preoccupied with food and their physical appearance. A couple of women expressed a particular expectation about regaining a regular menstrual cycles. For some, the expectations were modified as illustrated by the following citation:

I expected help to get on my feet, because I know that what I am doing is wrong (...). I expected not to completely recover, but at least, to become much better (...). I purged every day, and I hoped that the treatment programme would give me a push and remind me that I could not live this way of life any longer. (Anne, 24 years, BN)

Expectations about complete or partial symptom reduction aside, all women expressed a total engagement and commitment to the therapy, as was seen by many as their 'last chance'.

# **Expecting to experience a less negative body focus**

Many of the women expressed being preoccupied with fulfilling or adhering to unrealistic thin body ideals. To

accomplish such ideals, they had resorted to 'recipes' through social and other media. A highly consistent expectation was that the treatment programme should help them to become less preoccupied with complying with the body ideals. They voiced a wish to let go of such ideals in their daily life, for instance by not comparing themselves with the physical appearance of other people, and to become more relaxed, and more satisfied with their own body 'as it is'. They also expressed an expectation of having a healthy and strong body, and more physical energy. As one woman said:

I cannot count the number of 'spaced out' articles I have read—about various diets, and about 'rules' for when to eat and not to eat during a day. This make me feel provoked; how the media then create a travesty of what it means to have a healthy body and a positive body image. Yes, I do want to be thin, but I also wish to be healthy, but I realize that this is only possible in a dream world. I realise that you cannot be both at the same time. I do wish to be thin, but I am not ready to pay the prise of becoming thin. On the other hand, I am not at all happy with my body as it is now. (Elizabeth, 26 years, BED)

#### Expectations about therapeutic expertise

Given the plethora of 'expert advice' in the media and from other sources, the participants expressed clear expectations about finally receiving credible information through a programme they judged as very trustworthy. However, expectations were also coloured by some negative feelings of shame and fear.

# **Expecting seriousity and professional competence**

Nearly all participants became aware of the startup of the treatment programme through various media, and they were well aware of the prestige and reputation of both the study cite (ie, the NSSS), and staff members who were involved in the programme with respect to professional competence on physical exercise, exercise medicine and nutrition. One of the participants expressed this as follows:

I have great expectations about receiving good information from competent professionals about nutrition and physical exercise. (...). I believe what they will tell us – and that the treatment will give us more energy both physically and mentally, and I have never experienced that before. So I have great hopes with respect to benefit from this programme. (Linda, 21 years, BN)

# Expectations about being taken care of to prevent fear and shame

For all of the participants, it was a big step forward to realise having an ED and to consider entering into treatment. For many of the participants the threshold as even higher as they were somewhat reluctant to show up at the study site which they felt was prestigious. Many felt that they really were very different from the staff and student population, where almost everyone looked highly physically fit and well proportioned. As one participant said:

It was kind of scary to show up at the most well-known and prestigious institutions for the advancement of physical exercise, I feared looking like an idiot at the gym, or feared the humiliation of meeting people that knew why we were there...and particularly to exercise side by side with elite athletes with an international reputation. (Elizabeth, 26 years, BED)

However, all participants expressed a hope that the professionality and competence of the therapists, as well as meeting fellow patients in the study would give them hope and support to complete the treatment programme.

#### DISCUSSION

The present interview study aimed to capture expectations to a new treatment option for BN and BED, where guided physical exercise is combined with dietary therapy. We were able to classify pretreatment expectations into three categories. The first one was 'increased knowledge' about nutrition and physical exercise in order to reduce get more energy and to reduce their fear of food. The second one, 'symptom changes' captured expectations of less physical and mental symptoms, and a less negative body focus, while the final category 'therapeutic expertise', comprised seriousity and professional competence and expectance of being taken care of.

The present findings align with many previous studies with respect to expectations about therapist competence, personal qualities as well as the receiving of information about the current study. 12 14 15 17-22 However, an even more direct comparison with previous findings is the fact that participants in RCT<sup>23</sup> were interviewed about their experiences after they had finished the treatment programme.<sup>26</sup> Putting that study together with the current one, a rather high concordance can be detected between expectations and experiences with the new treatment combining physical exercise and nutritional therapy. Such concordance is related to symptom change, a new perception of food and more knowledge about nutritional needs. Curiously, it seemed like the concordance was less evident with respect to the group format. In the previous post-treatment study<sup>26</sup> of a different sample from the RCT,<sup>23</sup> we found rather mixed experiences in contrast to expectance of benefits from meeting others struggling with the same problems. Possible individual differences across the samples aside, it may be the case that less concordance reflect that people generally do not hold many previous experiences of participating in various forms of therapy groups. A limitation to the present findings is that for practical reasons, the interviews about pretreatment expectations were conducted after the participants had finished the treatment programme. Obviously, the expectancies could have been coloured by the actual experiences. In adhering to standard quality criteria,<sup>24</sup> much care was taken to prevent the impact of such a limitation. The obvious approach to prevent this limitation was to elaborate

on it during the interview, that is, to discuss how easy it is to let memories be coloured by current experiences, ask the participants to think back, and checking the time perspective during the interviews. Although recognising that the optimal solution would have been to interview the women before starting their treatment, this cognitive task of separating expectancies from experiences was facilitated by the fact that the post-treatment interviews actively addressed both perspectives.

With this in mind, the present findings have clinical implications. Overall, the categories generated from the present study point to important generic factors to consider in managing similar treatment programmes. In particular, it seems important to explore and discuss with patients their expectations about the treatment they are about to start in order to dismantle possible unrealistic expectations for instance, about a speedy recovery process. Second, throughout the treatment process it appears to be vital to monitor to what extent one is on track in reaching realistic expectations and goals, or whether it is necessary to adjust the treatment goals or the strategies to reach them. A focus on expectations seems generically important to build a strong treatment alliance, and perhaps particularly important for patients with BN or BED as a buffer against a fragile or ambivalent motivation to change. The findings require triangulation in future research as the specific expectation regarding exercise knowledge may not be found in other people seeking treatment from more general services versus a 'prestigious' centre known for expertise in nutrition and exercise, that is, the NSSS.

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