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Patients' Views on a New Treatment for Bulimia Nervosa and Binge Eating disorder Combining Physical Exercise and Dietary Therapy (the PED-t). A qualitative study.

Bulimia nervosa (BN) and binge eating disorder (BED) are the most prevalent of the eating disorders (ED) (Rosenvinge & Pettersen, 2015) and these illnesses cause suffering to about 3-5% of women. Developing new treatments for BN and BED is important for at least three reasons. First, about 50-60% of referred patients do not respond to evidence-based treatments currently available (Wilson, Grilo, & Vitousek, 2007; Linardon & Wade, 2018), possibly because of the complex nature of aetiology and maintenance factors (Rosenvinge & Pettersen, 2015). Secondly, at least in Norway, there is limited access to therapists who are specially trained or certified to provide evidence-based treatments. Third, a systematic review and meta-analysis (Brownley et al., 2016) has found uncertainty regarding optimal treatments for BED.

Our research group has contributed to an expanding portfolio of evidence-based treatment for BN and BED by developing and testing a new treatment, which combines physical exercise and dietary therapy (PED-t) (Mathisen et al., 2017). This treatment rests on an empirically derived conceptual model of neurobiological, psychosocial and behavioral impacts of physical activity on mental health (Lubans et al., 2016). Physical exercise is associated with a lower mental health burden (Chekroud et al., 2018), and is beneficial in treating other mental disorders like depression (Josefsson, Lindwall, & Archer, 2014; Rosenbaum, Tiedemann, & Ward, 2014) and anxiety disorders (Jayakody, Gunadasa, & Hosker, 2013). Moreover, the rationale for the PED-t rests on findings from systematic reviews (Campbell & Hausenblas, 2009; Cook et al., 2016; Blanchet, Mathieu, Laurent, Fecteau, St-Amour, & Drapeau, 2018) which show that physical activity may reduce both body dissatisfaction and the urge to binge eat. The PED-t treatment is based on a previous randomized controlled trial (RCT) from our research group (Sundgot-Borgen, Rosenvinge, Bahr, & Schneider, 2002), which showed that

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

guided physical activity, as well as dietary therapy were on par with cognitive-behavioral therapy in terms of reducing BN-symptoms. In a subsequent set of studies (Mathisen et al., 2018a, b, c), we have shown that the PED-t performs equal to cognitive behavioral therapy in terms of alleviating symptoms of BN and BED.

Several previous studies have focused on patient satisfaction with treatment formats, i.e. inpatient or outpatient services or individual therapy, family therapy or group therapy (de la Rie et al., 2006, Rosenvinge & Klusmeier, 2000). Such findings are relevant in a discussion about how to organize treatment services. Later studies, however, have focused on exploring experiences with particular kinds of treatments (Krautter & Lock, 2004; Lose, Davies, Renwick, Kenyon, Treasure, & Schmidt, 2014; Money, Genders, Treasure, Schmidt, & Tchanturia, 2011; Poulsen, Lunn, & Sandros, 2010; Sánchez-Ortiz et al., 2011; Paulson-Karlsson & Nevenon, 2012, Pettersen et al. 2017). This trend towards exploring patients' experiences reflects a growing interest in and recognition of such experiences as part of clinical evidence (Hallberg & Richards, 2015). Thus, it would be hard to defend recommendations and implementation of a clinically effective treatment that patients view as unacceptable. Moreover, patients' experiences are a highly valuable source to make changes and adjustments to improve the treatment in question. These arguments are also valid for an evaluation of the PED-t intervention. Hence, the purpose of this qualitative study was to explore important aspects of the patients' own perceived benefits (or not) of the treatment as well as their experiences related to the various treatment components.

Method

The consolidated criteria for reporting qualitative research (COREQ) were used to ensure the quality of the research process and its reporting (Tong, Sainsbury, & Craig, 2007).

Study Context

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

This qualitative study was run in the context of an RCT (Mathisen et al., 2017) aimed at comparing the PED-t treatment with CBT, and a waiting-list control group. Included in the RCT were women aged 18-40 years old with BN or BED. Excluded were pregnant women and women with overly manifest comorbid personality disorders or substance abuse, those outside the BMI range of 17.5-35.0, competing athletes, as well as those who had received CBT within two years prior to the study start. Both the CBT and PED-t were run within a group format of 5-8 participants over 20 sessions during four months.

The training program in the PED-t treatment consisted of three weekly exercise sessions, each lasting 40–60 min. Two sessions were resistance exercise, of which one was supervised. The third session consisted of unsupervised pyramid interval running (Mathisen et al., 2017).

The dietary therapy included three psychoeducative modules “dietary routines and structure” (five sessions), “nutritional knowledge and practical skills” (12 sessions), and “summary and future plans” (three sessions). More details on the nature and rationale of the treatment have been published elsewhere (Mathisen et al., 2017; Pettersen et al., 2018).

User Advisory Group

Patients are increasingly involved in research planning and conduct to improve the relevance of research (Oliver, Liabo, Stewart, & Rees, 2015). For this reason, a patient advisory group was established consisting of three members from a national ED patient organization who had personal experiences with ED, but not with participating in the PED-t treatment. The first author (MB) and the advisory group met regularly to discuss the study aim, the development of the interview guide as well as the information sheet for participant recruitment and data collection purposes. In addition, the advisory group members shared their own experiences and knowledge about ED to inform the first author’s understanding of EDs.

Participant Recruitment

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

Participant recruitment was assisted by the principal investigator (JSB) of the RCT, who contacted 36 participants consecutively from the group of 61 women who had completed at least 80% of the PED-t. Fifteen participants aged 19-42 years responded positively and 21 did not respond for reasons unknown. The 15 women who responded positively were interviewed by the first author (MB), who had no prior relation to the participants. Of these, six had BN and nine had BED. Fifteen interviews were considered sufficient to accomplish the study's aim (Malterud, Siersma, & Guassora, 2016).

Data Collection

All the women were interviewed once, and the data collection took place with a mean 16 months after completing the PED-t. The interviews lasted between 60-90 minutes, following a semi-structured interview guide which was developed from relevant literature about ED, the authors' ED expertise, and perspectives of the advisory group. The guide comprised several questions (e.g. *What are your overall experiences of participating in the treatment? Can you tell me whether your daily life has changed in some way during and after the end of the treatment? Can you tell me whether the treatment affected your current attitude and opinion about doing physical activity? Can you say whether the treatment affected your current attitude and opinion about nutrition and addressing nutritional needs? What are your thoughts on improvements with respect to a possible implementation of this treatment?*). The interviews were held between May 2017 and September 2017, at locations of the participants' own choice; four at the participants' homes, four at the Norwegian School of Sport Science, four at a rented office and three in offices at the participants' workplaces. All participants received a gift card with the value of NOK 250 (approximately USD 32) to cover their travel expenses.

Ethical Considerations and Data Security

The study was approved by the Norwegian Regional Committee for Medical and Health Research Ethics, identifier: 2013/1871, and registered in the Clinical Trials registry, identifier:

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

NCT02079935. According to the Helsinki declaration, the participants signed an informed consent to participate and were informed about the possibility of unconditional withdrawal from the study. Data were treated confidentially and information about the participants was presented with pseudonyms to secure anonymity.

Data Analysis

The first author (MB) transcribed the audio-recorded interviews verbatim and analyzed the transcripts. To add credibility to the study, a subset of transcripts was double-coded by GP comparing her overall impressions with the impressions obtained by MB. Moreover, the analysis was regularly discussed within the research team and continuously monitored by authors GP, RW and JHR until consensus was reached. The final categories were a result of a hermeneutical process moving back and forth between the transcripts, the interim findings, the literature and relevant theory, to ensure that the categories were grounded in the empirical data (Malterud, 2012).

The analysis was inspired by the principles of systematic text condensation as described by Malterud (2012). This is a four-step explorative and descriptive method for thematic cross-case analysis of qualitative data. The first step comprised reading and getting an overview of the whole data material of transcribed pages, obtaining an overall impression of experiences. In the second step, units of meaning were identified, coded and grouped relating to the experiences of the study participants. Version 10 of the N'Vivo software was used to document this step. Thirdly, coded data was condensed, meanings were abstracted within each of the code groups and subgroups and quotes were selected to illustrate the meaning of each group. In the fourth step, the content and descriptions within each code group were summarized, synthesized and re-narrated and finally, the code groups were re-named.

INSERT TABLES 1 AND 2 ABOUT HERE

Results

The analysis resulted in three main categories reflecting the experiences of having participated in the PED-t treatment; *perceptions of impact*, *perceptions of treatment organisation and completion*, and *perceptions of participating in a group-based treatment*.

Perceptions of Impact

The first main category concerns the experienced impact of the guided physical exercise and dietary therapy. Overall, the participants said that they gained knowledge and made use of this knowledge in various ways, expressed through two subgroups; *obtaining tools* and *developing new perspectives*.

Obtaining tools. The guided physical exercise was experienced as useful and motivating, and the exercise was reported to function as a tool that could be used in everyday life. Some of the women said that they had experiences from cardio exercises before starting in the PED-t treatment, a way of exercising that made them tired. When practising resistance exercises they reported less acute hunger as well as more energy. Susan, 30 (BN), said:

I have changed the way I exercise. I knew very little about resistance-exercise and now I have learned something about exercise that I have continued with, and that I hope to continue practising for the rest of my life.

Some women had found that exercise could have immediate and direct effects on their mental state. Monika, 40 (BED), expressed it like this:

It is not that I did not exercise before; I just did not realize how important exercise is for my mental state. I have now realized that exercise has a large effect on me, as I am able to turn around a difficult day or period by going to the gym.

Every participant said that they had learnt about the importance of four regular meals during the course of the treatment. Most of the women had realized that they, before the

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

treatment, ate a smaller amount of food than they needed in order to be healthy. By eating larger meals and eating more regularly, they reported less hunger and fewer episodes of losing control when eating. They described the effect from four regular meals per day on their own bodies, how this gave them a solid base that helped them avoid overeating again, with all its consequences. Irene, 42 (BN), described what four regular meals meant to her:

Four regular meals is my mantra now. I did not eat regularly before I started the treatment. It might not make much sense to others when I say: four regular meals, but when I say it I remember how I started crying thinking about adding an evening meal.

The participants also found it useful to learn about the plate-model, showing the amounts of different nutrients needed per meal. They described using this model in every mealtime situation. The majority of the women reported that they now, having finished the treatment, had started to reintroduce different nutrients into their diet such as bread, bananas and dairy-products, which they had previously denied themselves.

The participants reported logging meals and exercise results according to the treatment's requirement, and found this requirement helpful. The women gained motivation from logging results of the exercise sessions, and some said they had continued this logging after the treatment had ended. They found logging useful because they were able to see, and reflect upon, the amount of food they ate. Chloe, 34 (BED), described logging as a tool she used in her daily life:

I often log my diet and exercise when I wonder about the reason why I am feeling the way I do. Logging has also enabled me to identify patterns in my eating, the need to adjust my eating, and it prompted me to increase the total amount of food I consume.

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

Throughout the treatment, some women realized that their menstrual cycles affected their mood, and consequently would have an effect on eating and managing their daily life.

Irene, 42 (BN), described her thoughts around this:

The whole picture around my ED is very affected by my menstrual cycle. When the hormones peak everything becomes more difficult and I really do not know what to do. I feel things happening up there... I am not able to figure out what to eat or what to think about myself.

Having learned about the treatment-initiated food logging, the participants discovered add-on benefits of monitoring their menstrual cycles. One participant used a regular calendar, but Irene, 42 (BN), used her cell phone:

I now have an app on my phone. It tells me that I am ovulating, I am not just going mad.

The participants described that after some time, the constant regularity in meals and exercise had helped them create a routine. For many of them this routine had resulted in winning back a lost feeling of hunger to signal that it was time to eat. Most women valued these routines and said they had continued to use them after finishing the PED-t, and that the routines have helped them when going through difficult times. Irene 42, (BN) described it like this:

It was not until a year after the treatment that I realized that what they had told me was the truth and that I had developed some routines. When I went through a period of failure, I was able to crawl my way back in to these routines, and remember what I had been told and how important it was.

Mary, 32 (BN), said:

I had lost the feeling of hunger and the feeling of being full and I needed guidance and structure around mealtimes. We carefully added one meal at a time and reflected on what we

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

ate and how much. When I had a small setback, I needed to make use of what I had learned about putting together a meal. My focus on food is more absent now and I really just eat to function.

Developing new perspectives. During the treatment, the participants developed new perspectives on their own health, as well as new expectations and thoughts on how to manage daily life. They described learning, and directly experiencing, how the effects of optimal physical exercise and nutrition influenced their body and mind. They reported being able to see that the resistance exercises had helped them become healthier also mentally. Irene, 42 (BN), explained:

After working out I have become stronger and this has affected my daily life. I have become very strong physically, and that makes me strong mentally.

One participant, Tina, 42 (BED), contradicted the other women because she had not experienced any major changes in her everyday life after the treatment. She had, however, learned something important about herself regarding physical exercise:

Even though I do not exercise as much as I would like, I did cross that line. Earlier I did not believe I could be a person exercising. Now I know I can do it, and I have experienced joy from it.

The majority of the women had changed their exercise goals as a result of the treatment and many had developed a healthier relationship to exercise. Hannah, 33 (BED), described a common experience among the participants. Her previous life consisted of always thinking about how to stay active, and how to move around all the time, burning calories with a goal to lose weight. Her new goal to achieve a strong and healthy body was less time-consuming and she was able to do other things like re-engaging with her education and spending time with friends. Moreover, she stated:

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

*Earlier my life was a constant workout struggle. Now I try to talk myself up and tell myself that I am happy with what **I do** manage.*

The participants had learned many new facts about what kind of nutrients they needed, and misinformation that they had picked up from social media were corrected during treatment session. They had also become better at looking ahead, planning the day and bringing food along with them if necessary. The treatment had made them realize that they needed to balance exercise and food intake. Learning about energy consumption made them able to see the need for a higher energy intake when exercising. Julie, 19 (BED), said:

I had difficulties realizing that I needed food. I did learn that one needs a rather large amount of food when one exercises the way I do. It actually made me change the way I view my diet.

Some of the women had experienced a wakeup call when told by the therapist, whom they had confidence in, what might happen to their body and health if they continued their life as before the treatment. One participant described how she had been enlightened about many adverse health-related consequences of her ED, among them, her bone health. After finishing the treatment, it was important for her to continue practising what she had learnt to keep her body healthy. Another participant, Mary, 28 (BN), stated:

It is important to get the facts on the table about what can potentially happen to you if you keep hurting your body.

Several participants had learned to make better choices for themselves on diet and exercise, but also choices related to other aspects of life. One example was prioritising time with the people that made them feel good. Yvonne, 23 (BN), explained that she previously did not think highly of herself and the treatment helped build up her self-esteem:

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

It has helped me put together the picture I see today, and that I deserved this help. I deserve to be happy.

Perceptions of Treatment Organisation and Completion

The second main category, ‘perceptions of treatment organisation and completion’ relates to the women’s qualitative experiences of the treatment itself. Mainly, this related to the treatment being transparent and predictable, as well as the professional and personal qualities of the therapists. This category constitutes two subgroups; *planning and framing* and *therapists’ competence*.

Planning and framing. The participants shared an experience of relief about starting treatment, and described the PED-t as well planned and delivered. Many of the women were pleased to have the therapists there to guide them through four months of treatment. They valued the amount of support they received, especially in regards to eating and exercising, and liked being monitored about their progress. The monitoring and support made many feel less fearful of the potential for gaining weight. Irene, 42 (BN), said the space created by the therapists made her lower her guard:

To embark on a treatment like this, one has to reset. I experienced an arena where I could expose my feelings completely, and it was like ripping off a bandage and healing the wound.

The participants experienced that the therapists described the exercise program well and established a safe framework for participation. Being monitored within these safe frames made the women able to join the physical workout without hesitation. Furthermore, the participants found it helpful that the treatment put demands on them that they were supposed to fulfil. As part of the treatment, they were given homework, which involved reporting on their exercise and diet. Many of the women described themselves as conscientious, and expectations from

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

others were perceived as motivating. Monika, 40 (BED), explained what the expectations meant for her:

It was important for me that there was an expectation. First, there has to be an expectation from someone else, for me to fulfill, and then I have to learn to have expectations of my own.

Finally, the participants valued the treatment's focus on positive goals and accomplishments, and less on deficits and shortcomings. Louise, 41 (BED), who had years of experiences with treatment, said it this way:

That is why I believe in this treatment, moving the focus away from what is wrong, and focusing on something that is constructive and self-edifying.

Some of the participants reported that although the number of sessions was known at the start, the systematic end of the treatment made them feel left alone, and suggested that there could be follow-up sessions once a month during the first six months after treatment. Moreover, some reported a need for more time during the treatment, to talk about the challenges and experiences of living with their condition, and less time spent on education about nutrients. However, they also realized that other participants might have experienced the detailed nutritional education as beneficial.

Therapists' competence. The participants experienced the PED-t therapists as being highly competent and that they appeared confident in their professional role. The participants attributed their own feelings of safety and confidence to the competence and conduct of the PED-t therapists. The women also said that the therapists' knowledge about exercise and nutrition seemed to enable them to adjust the treatment to accommodate individual needs. For example, the therapists would introduce alternative techniques and alternative exercises if needed. Mary, 28 (BN), said:

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

I think there was a rather big difference between the groups, in how we managed the resistance exercise. I do, however, think we all felt satisfaction in how they made individual adjustments.

The participants said it was important that the therapists were able to answer their questions, and that they trusted the answers because of the therapists' educational background. Kim, 24 (BED), expressed her thoughts on knowledge like this:

When it comes to exercise, I feel I have a lot of knowledge myself. However, I understood that the therapists had even more knowledge than me. Because of that, I was able to let go of my routines and I felt that I was in safe hands.

Being friendly and caring were also therapist qualities valued by the participants. Several participants reported positive moments during the warm-up time on the treadmill, when the therapists would ask them about their day. This was perceived by the participants as a good opportunity to discuss individual challenges in a non-intrusive way and important for building trust. The therapists' personal qualities motivated the women to show up to the treatment sessions even when they had a bad day. Mary, 28 (BN), described it like this:

It was sometimes tempting to skip a session if I had a bad day or something. However, when resisting the temptation I would get a good feeling afterwards, giving me the courage to continue another week.

Many participants described the therapists as being able to motivate and push when necessary. Lily, 39 (BN), said:

I appreciated how they were able to bring forward my inner strength that I was not aware of (having). They were able to detect if I had a good or a bad day and found the right balance in how much to push me at different times.

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

Finally, the therapists were described as good tutors when teaching the participants how to give each other constructive feedback during the physical exercise sessions. The women could tell that the therapists worked towards strengthening the bonds between the group members. They saw the therapists as representing the joy of exercise, being able to lift the spirit in the whole group.

Perceptions of Participating in a Group-based Treatment

The third main category concerns the women's experiences of participating in a group-based treatment. Most of the participants were happy in their groups and described interactions with other participants that helped them in their own processes towards recovery. This category constitutes two subgroups; *learning and comfort in meeting others* and *motivating and supporting each other*.

Learning and comfort in meeting others. The women described relief in starting the treatment and meeting others with EDs. They reported a positive feeling from finally talking about the problem and not being alone with their EDs. Many of them were startled after attending the information meeting in advance of the treatment. They had been surprised that so many shared the same problem. Rose, 24 (BN), said:

It felt so good spending time with others who had the same problem. It felt good just being in a room where everybody knows that you have an ED.

The participants were able to recognise themselves in the stories of other group members, and described the relief in knowing that somebody else could have the same thoughts as they did. Some of the women had not even shared their problem with close friends or family members and described themselves as very private persons. They found it very difficult to speak out loud about their own feelings about eating and body image. Doing so in front of others with the same problems was, however, less scary.

Mary, 28 (BN), said:

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

Earlier I was ashamed of having an ED. After talking about guilt in the treatment group, I am now able to talk about my problems with my family and friends. First, this is no longer who I am. Secondly, I do not care.

Some women expressed feelings of alienation in their group in regards to age, the nature of their ED or their personal situation. They found the group setting difficult because they were unable to identify with the challenges reported by other group members. For instance, one participant thought it was a waste of time for her listening to another participant being motivated to eat more when she herself had no problems eating all her meals. The women suggested that future PED-t groups would benefit from being more homogenous, and that this might contribute to enhancing the treatment's benefit.

Motivating and supporting each other. The majority of the women described the group setting as an advantage because they could motivate and support each other. Some of the participants felt frustrated when they had failed to do simple homework such as having a small evening meal. On these occasions, it was motivating to hear that another group member had experienced the same challenge. They also reported giving each other advice on how to find solutions. Irene, 42 (BN), talked about how she learned from others:

By hearing the others talk, I became more self-conscious. They used words that made me understand myself a little better.

Noelle, 21 (BED), said:

You might hear somebody talk about how they have misused their body, in the same way or even worse than you have yourself, and it hurts. You do not deliberately want to hurt your own body.

Many of the participants talked about feelings of obligation towards other group members, and finding these obligations motivating. One example was giving each other

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

feedback on homework where they took pictures of their own meals, something they found very useful. When exercising, they reported helping each other by giving support both physically and mentally. The focus was reportedly on their own progression, and not competing against each other. They would motivate each other by asking how much they had improved *their own* weight lifting compared to the last exercise session.

Yvonne, 23 (BN), explained how it had been very useful for her to get to know the other group-members. She had previously been very judgemental towards thin girls and athletic people, and now she hoped she had become a more empathetic person:

Hearing their stories made me become more enlightened, and being able to understand how others might be feeling.

Most of the women spoke of how group members motivated and supported each other. Some women, however, were frustrated by how time was divided between participants. They thought that some participants needed a lot of attention and consequently consumed more time and space than others. They suggested that in the future, therapists should attempt to divide time between participants more evenly.

Discussion

In this qualitative study, we have explored patients' experiences of participating in a new treatment that combined guided physical exercise with dietary therapy (the PED-t). The overall positive experiences of the PED-t reported here indicates that the PED-t is likely to be acceptable to those patients who complete it. However, the patients reported some challenges and suggested areas of improvements.

Our data speak to three overarching themes: "perceptions of impact", "perceptions of treatment organisation and completion", and "perceptions of participating in a group-based treatment". Overall, the women reported that the PED-t gave them new perspectives on their

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

own health. They appreciated, and perceived as credible, the combined psychoeducation and training they received about nutritional needs and the possible consequences of irregular consumption of inadequate diets. In addition, food logs and physical exercise were experienced as useful tools to combat irregular or chaotic eating patterns.

Food logs, meal planning, and the regulative aspects of physical exercise can be regarded as a first step towards the next experience, i.e. the ability to eat naturally or intuitively in response to bodily and psychological cues of hunger, and not to soothe negative feelings or urges to binge. These findings align with other studies which suggest that regaining intuitive eating is a marker of positive treatment outcomes across all ED diagnoses (Richards, Crowton, Berrett, Smith, & Passmore, 2017) in terms of less disordered eating and body image concerns (Linardon & Mitchell, 2017; Bruce & Ricciardelli, 2016).

The way the therapists spoke about the health-related consequences of BN and BED were experienced as a wake-up call, and the women had to unlearn misinformation they had picked up from social media (Oyeyemi et al., 2014; Gabarron et al., 2018). Our findings support a systematic review (Moorhead et al., 2013) that credibility is an important aspect of any health communication regardless of its platform. The source of credibility in the PED-t therapists was how they presented themselves as knowledgeable, and that they provided their knowledge about nutrition and physical exercise with competence and professionalism.

Perceived therapist competence was also an aspect that made the treatment safe and predictable for the patients. Whether this alludes to the general bonding and alliance factors in psychotherapy (Horwath & Luborsky, 1993), or a specific effect of the PED-t, is beyond the aim and scope of the present paper. However, “competence” was not only attributed to the therapists’ knowledge and professionalism, but was also linked to the safe context in which the participants worked on their physical exercises in the PED-t program. The present findings of experienced outcome add to previous experiential findings on the benefits of PED-t (Pettersen

et al., 2017) and combined this evidence supports the PED-t as an effective and acceptable treatment for ED. In addition, the PED-t was experienced as promoting a more positive perception of physical exercise. This is supported by the overall finding from the RCT, which found that the PED-t provided a steady decline in excessive and compulsive exercise from baseline to the 12-months follow-up (Mathisen et al., 2018b).

Most of the participants reported that the group format and the group interactions provided support and promoted mastery and self-confidence rather than focusing on pathology. Most patients also valued the group interactions and the provision of support based on mutual recognition of each other's challenges. However, some participants were concerned about other participants who were experienced as monopolizing the group sessions. Some participants also voiced feelings of being alienated with respect to age, the nature of their ED or their personal situation. These findings point to the importance of including a qualitative component in experiential studies as an important source of fruitful treatment adjustments. Future use of the PED-t may need to address group dynamics and participant heterogeneity in particular. Another concern raised by the participants was that the fixed time frame of the treatment did not allow for follow-up sessions. This is an important aspect because such sessions may prevent relapses (Brauhardt, de Zwaan, & Hilbert, 2014; Pettersen, Thune-Larsen, Wynn, & Rosenvinge, 2013) and follow-up sessions should be considered when the PED-t is run outside the context of an RCT. As expected, there were nuances in the way participants experienced the balance between being educated and talking about challenges in putting the acquired information into practice. Some initial clarifications about what to expect from the PED-t would be worthwhile to consider.

Two study conditions are relevant to interpret the findings. First, the interviews were conducted 16 (mean) months after completing the PED-t. This time period may have influenced a selective memory recall. However, the participants might have used the time lag to reflect on

EXPERIENCES OF A NEW EATING DISORDER TREATMENT

their experiences of participating in the PED-t. Secondly, by not interviewing those who attended less than 80% of the PED-t sessions, positive experiences may have been over-reported. Experiences among dropouts will however, be reported on in a forthcoming study. In contrast to a previous qualitative study (Pettersen et al., 2017) a strength of the present one is that the interviewer had no prior relationship to the participants, reducing the expectation bias.

Patients who completed more than 80% of the curriculum and who were willing to enrol in this study viewed this method of intervention as acceptable and beneficial in many respects, providing additional support for further evaluation of PED-t as a treatment option for BN and BED. This is particularly salient given previous work supporting the overall efficacy of the program (Bakland et al., 2018; Mathisen et al., 2018, a, b, c, Pettersen et al., 2017). The PED-t intervention can be offered outside the traditional therapeutic health service setting by a new set of professionals. This raises the possibility of an alternative and easy accessible treatment for people with BN or BED. More studies on the PED-t intervention are needed to provide knowledge about efficacy and therapeutic mechanisms.

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EXPERIENCES OF A NEW EATING DISORDER TREATMENT

Table 1. Categories and their subgroups identified

Perceptions of impact	-obtaining tools -developing new perspectives
Perceptions of treatment organization and completion	-planning and framing -therapists' competence
Perceptions of participating in a group-based treatment	-learning and comfort in meeting others -motivating and supporting each other

Table 2. Examples of preliminary themes, units of meaning, code groups, condensed units, descriptions and categories derived from the data analysis.

Step 1	Step 2	Step 2	Step 3	Step 4	Step 4
Preliminary themes	Units of meaning	Code group	Condensed unit	Description	Category
Physical activity	<i>It is not that I did not exercise before, I just did not realize how important exercise is for my mental state.</i>	Obtaining tools	Exercise important for the mental state	Experiencing exercise as a tool which can be used in everyday life	Perceptions of impact
Expectations from others	<i>It was important for me that there was an expectation from someone else, for me to fulfill.</i>	Planning and framing	Expectations are motivating	Perceiving expectations from others as motivating	Perceptions of treatment organization and completion