ORIGINAL ARTICLE

Patients' Experiences of blended Group Therapy for Depression: Fit and Implications for the Group Setting.

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Abstract

Background: Blended group therapy (bGT) combines group sessions with internet- and app-based treatment modules. Consequently, bGT widens the choice of interventional strategies within Internet Interventions at reasonable costs. This is the first qualitative study on bGT.

Objective: This study investigates the user-centred feasibility of bGT, with special emphasis on the fit and dynamic interplay between face-to-face and internet-based components of group therapy.

Methods: A total of 22 patients, with a variety of experiences from two different bGT interventions, were interviewed following a semi-structured interview guide. In-depth interviews were analysed by three trained psychologists, using thematic analysis and a rule-guided online program (QCAmap). The transcript of the interviews (113 555 words) was condensed to 1081 coded units, with subsequent extraction of 16 themes.

Results: Technology was described as a treatment facilitator and motivator, increasing the salience and consolidation of cognitive behavioural therapy materials, and resulting in in- and intersession alignment to the treatment. Additionally, patients value the option of intimate online self-disclosure (via lateral patient-to-therapist communication) and therapists are provided with tools for between-session monitoring and reinforcement of exercising. In this context, group phenomena seem to back up therapists' efforts to increase treatment engagement. Negative effects regarded the possible dissonance due to non-compliance with online tasks and the constriction of in-session group interaction. Lastly, issues of tailoring and structure seem to meet different preconditions compared to individual therapy.

Conclusions: bGT constitutes a structured and proactive approach to work with depression and the integration of both modalities initiates a beneficial interplay. Results confirm the user-centred value of bGT and provide a first insight into bGT's role in fostering relevant active treatment factors. However, potential negative effects should be considered carefully.

Key words: Blended Therapy; Group Therapy; Blended Group Therapy; Internet Interventions; Depression; Therapeutic Factors

Introduction

Depression, as a prevalent mental disorder, presents a relevant public health concern and incurs substantial economic costs on public health-care [1]. Amongst others, research priorities in mental health-care include the development and evaluation of internet-based and eHealth treatments, as well as the testing of real-time psychometric feedback [2].

Technology supported interventions feature different degrees of therapist support. On a basic level, unguided psychological stand-alone treatments display wide reach at most reasonable costs. At the same time, therapist guidance can help to improve treatment effects and reduce dropout-rates significantly [3, 4]. Still, certain characteristics of guided and unguided online therapy seem to decelerate and limit dissemination. Here, lack of personal contact, restricted management of comorbidity or crisis, as well as stakeholder attitudes and legal restrictions act as prominent barriers [5]. To address these factors, online interventions can be merged with classical face-to-face psychotherapy, resulting in the treatment format of blended therapy.

Blended therapy may be considered as any combination of web-, mobile- or technology-based application with classical face-to-face therapy, resulting in possible savings of therapist time (efficiency), or an intensification (efficacy) of the treatment [6]. In this context, feasibility studies investigate the utility of technology-aided interventions for the in- or between-session treatment of common mental disorders, such as anxiety or depression [7, 8]. Other studies aim at reducing the number of personal sessions needed to treat [9-11]. These reductions should result in postulated increases of cost-effectiveness. Even though some blended interventions are designed to intensify treatment [12], corresponding literature remains scarce [13-16].

Besides individual therapy, the blended format has also been applied in psychological group treatments. Group therapy has many possible applications and is a recommended treatment in various guidelines. For example, the National Institute for Health and Care Excellence [17] recommends group cognitive behavioural therapy (GCBT) for people who decline other low intensity psychosocial interventions, such as computerized cognitive behavioural therapy (cCBT). The employment of blended group interventions for the treatment of frequent anxiety disorders, such as social phobia [18] or generalized anxiety disorder [19, 20], has been successfully tested. As for depression, our research group developed and tested a series of low threshold and stigma free interventions for subclinical, as well as clinical depression [11, 15]. Aside from high to very high treatment effects on depressiveness, in- and intersession computer support was consensually described as an active working factor, contributing to treatment intensification [11, 15].

Regarding patients' experiences with blended therapy, studies exist in form of post treatment surveys and semi-structured interviews. Based on a Delphi study, van der Vaart and colleagues [21] assessed possible benefits and drawbacks of blended individual therapy. Perceived benefits of applied online components concerned improvement of therapy-related self-management, flexibility of treatment complementation and reduced traveling time. On the other hand, half of involved patients feared that patient-therapist bonding could be weakened and difficulties or indistinct matters could be harder to communicate. The majority also agreed that the blended format is not suitable for all patients and that treatments should be tailored to individual needs. In a qualitative study, Ly and colleagues [22] examined patients' experiences with a mobile phone behavioural activation app, combined with short therapist contacts (max. 20 mins. per week). Due to its permanent availability, a subgroup of patients described the app as a treatment facilitator and motivator. At same, most interviewees agreed that the app was supportive, but not sufficient for the treatment of depression, and many participants of the minimal contact intervention wished for more personal contact. These findings are in line with a qualitative study on patients' motivation to persist with a blended intervention (online intervention + short face-to-face consultations) [23]. According to the authors, patients were motivated to persist with the intervention when their need for relatedness was satisfied. In this context, Self-determination theory (SDT) [24], which postulates relatedness, competence and autonomy being the three relevant agents for intrinsic motivation, served as underlying theoretical framework. In a second evaluation, online components were perceived as knowledge sources providing a structured approach to work with depression [25]. Enhanced patient skills and beneficial effects on the therapy process were also reported by Mansson and colleagues [7]. Here, online content was described as a source of information and memory aid. Some patients reported fostered treatment engagement and reduced avoidance of feared situations. Involved therapists suggested that the structure provided by online-components might counteract the tendency to drift away from evidence-based treatment rationales (therapist drift) [26].

Put together, patients experiences contribute to the understanding of new treatments and are crucial in the development of blended interventions. While blended individual therapy has been evaluated several times, the blended group format has not been an object of intensive research yet. Thus, one might wonder if the preconditions of blended therapy are identical in individual and group therapy, or if the dynamic interplay between technology and group results in new phenomena or setting-specific benefits and drawbacks. Based on follow-up interviews of two recently conducted clinical intervention studies on blended group therapy for depression, this article seeks to shed light into the subjective evaluation of blended group treatments.

Methods

The present study was carried out as a follow-up of two recently conducted clinical trials in Salzburg and Vienna, Austria (German Clinical Trial Registration, DRKS: DRKS00010894; DRKS00010888). Both trials have been approved by the local ethics committees (Ethical Review Board University of Vienna, Ref-Nr: 00194; University of Salzburg, Ref-Nr: EK-GZ:18/2016). The aim of the studies was to test the feasibility, usability and effectiveness of two newly developed blended group interventions for the outpatient treatment of mild to moderate depression and comorbid anxiety.

Interventions

Both treatments entailed psycho-educative techniques, combined with either self-management or behavioural activation. The treatments entailed in- and between-session computer- and media support. Sessions were held in a double trainer format by seven trained and supervised psychologists. Group sessions (90 mins.), online homework tasks and remote therapist feedback alternated within each week. The first intervention had a scope on resource-oriented techniques and self-management and entailed 7 face-to-face group therapy sessions. Multimedia presentations, eLearning (online videos and worksheets), an unguided group-chat, as well as remote therapist-patient communication complemented the intervention [15]. The second intervention was based on principles of Acceptance and Commitment Therapy (ACT) [27] and Behavioural Activation [28]. Except the unguided group chat and an additional mobile phone based diary app, both interventions featured identical technological components. This (second) intervention was operated via a Minddistrict platform (<http://www.webcitation.org/6vXPhsIIW>). The first and last authors of this paper took part in planning and evaluating both trials.

Trial context and involved patients

For trial recruitments, a multiple strategy was chosen, comprising of a newspaper article, online advertisement (e.g. <http://www.webcitation.org/6vXPqPEij>), as well as handing out flyers in public health centres, general practitioner practices and frequently visited public areas. All those interested were invited to visit the study webpage and fill out an online participation form.

Based on independent clinical interviews [29], patients were eligible to participate in one of the clinical trials if they suffered from major depressive disorder (MDD) and/or dysthymia and/or comorbid anxiety, did not undergo psychotherapy, kept medication constant for at least three months, were aged between 18 – 65 years, possessed a personal computer, a smartphone and access to the internet and were fluent in German. According to clinical judgement, participants were excluded if they suffered from severe depression, severe anxiety disorder, bipolar disorder, substance abuse, severe psychiatric and psychotic conditions, schizoaffective disorder or suicidal ideation.

Interview recruitment and data collection

For the current study, all patients of both trials received a written invitation to participate, starting within a period of one to eight months after treatment had ended. The recruitment was continuous and we strived to cover a broad experience of the treatment. Therefore, a compensation of 20 Euro was offered for participation and, in the invitation, a special emphasis was placed on including less positive experiences as well. Out of 53 eligible patients 22 agreed to participate in the qualitative evaluation, resulting in a response rate of 41.5 % (68 % female). Age ranged from 21 to 64, with a mean of 36.2 years ($SD = 11.6$). Due to strategical invitations and prompts, we were able to include one intervention withdrawal (33 % of all withdrawals), as well as a good proportion of relatively unsatisfied patients (50 % of all, Client Satisfaction Questionnaire, CSQ [30]), and patients with comparably low system usability ratings (70 % of all, System Usability Scale, SUS [31]). Thus, the SUS ratings represent a more critical sample, than the original population. Reduction of depressiveness also varied, including one deterioration, as well as six non-responders. A detailed sample description is provided in *Table 1*.

Table 1.
Characteristics of interviewed patients (N = 22)

Nr.	Age	Gender	Employment	Diagnosis	Comorbidity	Diff. CES-D post-treat.	CSQ	SUS
1	21	f	Student	F32.0	-	-9	+	+
2	37	f	Part-time	F32.0	-	-9	+	++
3	35	m	Full-time	F32.1	F41.1	-3	++	+
4	45	f	Unemployed	F32.1	F34.1+F40.2	-15	++	+
5	33	f	Full-time	F41.1	F45.1	-7	+	++
6	31	f	Full-time	F32.0	-	-28	++	+
7	56	f	Full-time	F41.0	-	+9	++	-
8	24	f	Part-time	F32.1	F34.1+F41.0	+/-0	+	+
9	27	m	Student	F32.1	-	-17	++	+
10*	28	f	Marginally	F32.1	-	-13	++	+
11	28	m	Full-time	F32.0	-	-5	++	+
12	47	f	Unemployed	F32.1	-	-11	+	+
13	45	m	Full-time	F33.0	-	-14	++	+
14	24	m	Student	F40.1	F33.4	-5	-	+
15	34	f	Full-time	F32.0	-	-11	+	-
16	40	f	Full-time	F32.0	-	-3	-	--
17	26	f	Part-time	F32.1	F41.1	-22	++	+
18	46	m	Full-time	F32.0	-	-13	++	-
19	24	f	Part-time	F32.0	F40.1	-2	++	-
20	64	f	Full-time	F33.0	-	-10	-	+
21	50	f	Full-time	F33.1	-	-11	++	-
22	32	m	Part-time	F33.0	-	-9	+	-

Note: f = female, m = male; * = withdrawal, diagnoses according to ICD-10; Diff. CES-D post-treat. = difference in depressiveness from pre to post treatment; CSQ = Client Satisfaction Questionnaire [30] (++ > 27; - < 24); SUS = System Usability Scale [31] (++ = “good”; + = “okay”; - = “poor”; -- = “awful”)

Retrospective semi-structured in-depth interviews were conducted in equal parts by the first author (RS) and the second author (SS) and took place between three and nine months after participation (M

= 4.1 months). Both psychologists were blind to the outcome of the patients at the time of the interviews. Audio recorded interviews were based on a 15 question interviewing guide (attached in [Appendix A](#)) and lasted between 25 and 70 minutes ($M = 46$ minutes). Oral informed consent was obtained at the beginning of each interview. Contents of the interview guide were based on prior blended therapy research [22, 24, 25]. Basic questions concerned expectations and motivation to participate in the clinical trials, as well as perceived advantages and disadvantages of the group and blended format. Further questions regarded experience-related process aspects of the blended treatment, such as perceived structure, intensity and effectiveness. In the last section patients were invited to share memories of the treatment and to give feedback on potential improvements.

Data analysis

Recorded interviews were transcribed by the second author, together with an independent additional trained psychological assistant. For our study's purpose, thematic analysis was chosen as an extraction method [32]. In this approach, meaningful patterns are pinpointed by a variety of initial codes, which in turn get bundled into sub categories, and subsequently result in designated main themes. By synthesising a deductive and theory-driven frame (cf. interview guide) with an inductive and data-driven extraction process, the current process of content extraction can be classified as hybrid [33]. This strategy on the one hand allows a systematic allocation of observed phenomena within empirically pre-existing concepts, while, on the other hand, preserving transmissibility for new phenomena.

During sequential data analysis, the written transcripts (113555 words) were read repeatedly by the second author and the trained independent psychological assistant. For data extraction, the transcript was then uploaded to the QCMap platform (QCMap [34]). The service provides standardised rule-guided qualitative categorisation and allows online code extraction. The principal code system was created by the second author (SS) and revised by the first author (RS) and an additional trained psychologist, with the possibility to modify or rename any given unit. After 25 % of the text had been coded, the principal extraction and independent revision of meaning units was stopped and all three analysts determined preliminary coding units to work with. Subsequently the entire text was analysed, resulting in 1081 coded passages. In the next step, meaning units were extracted and grouped into sub-themes, which in turn were validated by revisiting corresponding text passages. After this, sub-themes were refined by the first and second authors together with the independent psychologist, in order to create a coherent wording and structure. As a last step, refined sub-themes were related to main themes, which often corresponded to predefined topics of the applied interview guide.

Results

Based on 1081 coded passages the analysis of 22 interview transcripts identified 3 generic and 13 setting specific themes: (1) patients' expectations, (2) general appraisal of the treatment, (3) suitability for use as well as (1) appraisal of the blended format, (2) (dis-)advantages of the blended format, (3) structure and tailoring, (4) self-disclosure and online-reinforcement, (5) dynamic interplay of group and technology, (6) negative effects, (7) design, treatment (dis-)continuity and motivation, (8) workload, (9) enhanced psychoeducation and monitoring, (10) quality of treatment, (11) appraisal of single tasks, (12) data safety and technical issues, and (13) principles of action / treatment working factors. For this article's purpose we will only address the first two generic and six treatment specific topics (*Table 2*). The remaining results will be published in near future.

Table 2.

Patients' main themes, sub-themes and frequent codes.

Main themes	Sub-themes	Frequent codes
Expectations	Help	Treatment; alternative treatment; support with life events
	Group	Exchange; self-disclosure; mutual support; being connected to others; concerns about group
	Intervention	Novelty and curiosity; tools against depression; structured approach to address problems
Appraisal of treatment	Group	Cohesive entity; atmosphere; self-disclosure and discussion; preference over platform
	Intervention	Shift of modalities; structure and composition; practical use
	Experience	Useful insights; positive over all experience
Evaluation of blended format	Advantages	Contemporary/innovative/engaging approach; transparency/flexibility of approach; blending supports treatment; reminder; enhances consolidation; helps group interaction
	Disadvantages	diverging preferences; importance of group; low usability; concerns regarding format; workshop-like
Evaluation of blended components	Advantages platform	Provides information; increases information processing; interactive; practical; clear structure; saves time for group;
	Advantages app	Reminder; transfer; documentation of mood/activities; awareness; insight/understanding
	Advantages in-session media	Guides therapists; provides information; supports therapists
	Disadvantages of all	Low usability of app/platform; does not suit everyone; too little tailoring of reminders; sense of obligation or annoyance; discouragement due to non-compliance; suboptimal trainer behaviour
Structure and tailoring	Structure	Positive appraisal of structure; guiding thread; systematic approach to work with; unmet needs
	Blending	Increased individuality; blending leads to structure; risk of overload
Self-disclosure and online-reinforcement	Reinforcement	Increased presence of therapist; feedback motivates; personal feedback; support with exercises
	Self-disclosure	Extra path for self-disclosure; extra information for therapist; group hinders self-disclosure

Dynamic interplay of group and technology	Preview/rework	Preview; rework; alignment; group increases online compliance
	Smoothing effect	Reduces undesired effects; group drift; domination
Negative effects	Therapist level	Therapist's time management; therapist's patient management
	Patient level	Restricted group interaction; non-compliance results in dissonance; low added value
	Technology	Design/technical/data safety issues

Patients' expectations

Patients' treatment expectations and motivations entailed several aspects in equal parts. Most patients either mentioned the need for psychological depression treatment, or they were searching for help to deal with critical life events, incipient signs of burnout, panic or other crises. Three patients mentioned prior stays in psychiatric clinics and the urge to counteract current relapse tendencies. Another three patients were looking for alternatives to conventional psychotherapy or medication. Five of the patients regarded the group as a place for exchange and mutual support. Contrarily, two patients reported initial concerns about the group setting. A minor number of comments pertained novelty and curiosity of the treatment or the desire to work with a structured approach and to receive tools against depression.

Not too many [expectations]. I have suffered from depression for several years. I wanted to find better ways of dealing with it and also to actively do something against it without the need for medication. (B5)

To somehow untangle a knot. My children consume a lot of my attention and I also think a lot about my own childhood. Sometimes I simply don't think I can manage it. So I was looking for a solution. (B4)

I was diagnosed with depression and I thought, [...] okay that's an easy way to seek psychological treatment. I was also curious and interested in learning ways to cope with it. (B11)

The first idea was to get in contact with people. Since moving here I have felt quite well. But, after a while I realized myself relapsing into old habits that were not any good. So I hoped for some input. [...] A few years ago, I stayed in a psychiatric clinic for some weeks. (B14)

Over all experiences with the treatment

This section entails experiences with most salient treatment aspects as well as appraisals of its most valued elements. In total we received 52 comments, and a 5:1 ratio describing positive to negative treatment features. Frequently, the group was described as a cohesive entity, providing an amicable atmosphere for exchange, self-disclosure and discussion. In this context, two patients also expressed their preference for the group over the online platform. A second popular category entailed positive comments on the interplay of modalities (e.g.: psychoeducation/discussion and exercising), structure

and composition of the elements as well as their practical use. The third category contained comments on interesting or useful insights and a positive overall experience. These categories were followed by four other medium frequency meaning units. In one of those, the role of the therapists was acknowledged. Another unit was dedicated to the compactness and transparency of the treatment. Four patients pointed out that everyone was able to put special emphasis on personally relevant treatment aspects. Three patients described the treatment as a low threshold intervention, which does not fit the concept of conventional psychotherapy. Negative experiences concerned acceptance and commitment therapy as a demanding concept (2), and the group as a demanding setting (1). Four patients described the treatment as too short, too fast or too structured.

It was thrilling and interesting for me. I don't particularly like these group discussion situations. [...] But at same, you learn that you aren't the only one. [...] For me it was more of a workshop rather than a therapy. (B6)

It was a nice mix of talking and practical exercises. [...] And it was in a group [...]. This was quiet nice, because I frequently feel as if no one understands me. [...] I found a friend there and we are still in contact. (B12)

I think it [therapy] was arranged well. I can't say that everything suits everyone, but you can pick out things that suit. (B18)

Sometimes it [in-session presentation] whizzed by so fast and I did not manage to keep up. But still, it was interesting and the two [therapists] did a great job. [...] The online part also worked well, with interesting videos. It was quiet interactive. (B15)

General evaluation of the blended format

As central success criteria for the new treatment, user's general evaluation of the blended format can be regarded as the overall experience with the computer- and mobile-supported interventions, as well as the conceptual validation of their most important features. In this context, 71 positive and 16 critical sections have been identified. Participants frequently described the treatment as a contemporary and innovative approach, entailing an engaging and transparent treatment course. The majority of patients appreciated the supportive role of technology. Technology was reported to act as a reminder and to increase the consolidation of treatment materials. Some patients described it as a treatment intensifier. The online platform was frequently associated with treatment flexibility and increased self-management. Many patients commented on beneficial phenomena regarding the group's dynamic interplay with technology. In this regard, a corresponding in-depth analysis is being provided in the next section. Last but not least, many comments constituted generic appraisals of the blended format.

I like the idea of merging those methods. (B16)

I think media can improve the treatment. (B22)

I only find advantages in all three of them [group media, platform, and app]. I think it's good, because it's the way of the future. (B17)

I have psychotherapy experience, but I definitely prefer this format. (B21)

It makes sense. People engage freely and relate something positive and relaxing with it. If you use it for psychological work, then this "couch-interview-dependency-factor" disappears. (B4)

I think it's a good idea, because the platform was supportive. In the sessions we talked about its content – that's a good conjunction. (B7)

The combination was nice. I understand things better when I see them. For example, I still remember this short clip with the dog. Looking at it from this point of view was nice as I could recognize myself in it. (B8)

I like this approach a lot. It means autonomy. You do not only participate in the group sessions. If you are interested, you can prepare yourself or rework something. So you stay in the flow. (B13)

Critical statements of overall experience ranged from personal preferences, the importance of group experience and usability aspects, up to serious concerns about the application of technology in psychotherapy. Three patients described the treatment's workshop-like character as unusual or unfitting.

It is okay for me. It is modern. I'm just not really the "online tool study" type. (B18)

To me, personal contact is more important, than watching videos or letting something else wash over me. (B2)

I found it way too complex. With these videos and then the app – so many platforms and I was constantly searching for my password. For me it was simply too complicated. (B15)

I wonder why psychology deals that much with technology. Due to my prior therapy experience, I'm sceptical when it comes to standardisation and thinking inside boxes. It was somehow disconcerting for me. (B20)

Advantages and disadvantages of blended components

In this section, patients shared their thoughts and experiences with the blended components: the online platform, the in-session media use and the mobile application. Many comments reflect on aspects of usability, facilitation and habituation. As a first component, the online platform was described as a useful and economic source of information. In this context, weekly presented videos were described of interactive, illustrating, entertaining and explanatory quality. Additionally, the

online platform's practical handling was highlighted in terms of information content and clarity, individual pacing, fostered information processing and time savings for group sessions.

In the first place it is guiding and deepening and particularly timesaving. [...] Because if you'd work on it during the group meetings a lot of group time would be lost. In that sense, it's good to receive it in advance and then discuss it with the group. (B20)

I liked the online platform most, perhaps because everything is arranged clearly on a big screen. (B15)

For me it [platform] was a ritual: I entered the password to logon and I was in. And that's the time I take. And then I simply work on it. (B6)

You can assess the content whenever you need. [...] So, one is able to work at his/her own pace– that's the great thing. (B4)

This is mere speculation, but maybe computer support increases the effectiveness of the treatment. (B16)

The mobile app was primarily described as a reminder and transfer facilitator. Additionally, it supported the close documentation of mood or activities and helped increase awareness. Some participants also reported better understanding of problematic behaviour or (emotional) triggers.

To assess one's mood - as in a diary - that's a fantastic idea, because you can track it over a long period of time. And I think that helps find out, if certain things help, or if they don't. You could also use a sheet of paper, but the app provides more features. (B9)

You have to document your mood [...] and in the end it sums it up as a time line. That's pretty nice. This might help in identifying triggers and things that repeatedly put you down. (B20)

You get reminded of the awareness. It's not like writing a diary: what happened today in your life? Instead it's really: what do you feel right now. That's a nice input, because I would not have come to ask myself that profoundly. (B10)

The app was great to receive reminders and everything. It was funny, quiet rapidly you don't need the reminders any more. Because you know: Ah, soon it will ring again. (B17)

In session media support was described as a moderation guide, as an information source and as support for the trainers.

It [in session slides] should not predominate – to drone out the presentations for example. It should be a guide for the moderation or to visualise something, so you can better understand, but the dialogue remains central for me. (B21)

They used slides, that was ... in no sense too much. It took approximately 15 – 20 minutes. Afterwards we started exercising or conversing. (B13)

Disadvantages mostly regarded low usability of certain intervention components. A prominent critic concerned the missing adjustability of mobile app reminders. Some participants added, that the app's functionality needed improvement or extra functions were suggested. Three patients marked, that the treatment is not applicable for every patient. Due to increased inter-session availability, some patients reported a sense of obligation, annoyance or discouragement as a consequence of low online compliance. A small number of cases also reported suboptimal therapist behaviour.

The online platform did not really fit me. I think the principle behind it is okay, but for me it was a kind of obligation. (B1)

The app started ringing over and over again and reminded me of all kind of things, which I followed half-heartedly. I like accomplishing things when I'm in the right mood and when I find time. (B12)

To use the app at several times a day does not help. It only results in additional stress. It would need a kind of surveillance, let's say, operating without user-input. (B11)

Depending on therapist and design, I think [in session] media can also result in more distraction. (B 16)

Implications for the group setting

A facilitator for self-disclosure and reinforcement

As contact usually is restricted to the group session, a typical drawback of groups is the limited time therapists can dedicate to single patients. In this context, blending brings two important advantages. First, the perceived presence of the therapist (e.g. online feedback, support with exercises or the expression of empathy) can motivate patients to engage with the treatment. Second, some patients described the group setting as hindering when it comes to self-disclosure. Here, the extra pathway for intimate patient-therapist-communication constitutes a valued opportunity and provides important information for therapists.

What I liked was the feedback after working on something or after completing an online module. Irena [false name] revised our exercises and gave feedback on it. [...] I think it's good to have these exercises with a bit of pressure and the feedback system. (B1)

It was very important to have home exercises and also daily reminders: Hey, there is something you should work on! For me 70% of the success resulted from keeping up with it; and that it was not only restricted to one day [per week]. (B10)

There was the story of this football player. I identified with him because I play soccer myself. [...] This was an oppressive situation ... Andrea [false name] wrote some very empathic feedback on that. [...]. Based on prior group therapy

experience in a psychiatric clinic, I would prefer the blended format because it provides the opportunity to communicate directly with the therapist. (B14)

Or the online platform. Here, questions and other things can be answered in detail and in a more direct manner, compared to the group, where shame might be an issue. (B11)

Some people might have deep and private issues and they could fear sharing within the group. And there [platform], they really can be sure, that it stays with the right person and that they receive some help. (B7)

The dynamic interplay of group and technology

Besides improved patient-therapist contact, results suggest a beneficial interplay between the group as a dynamic, self-organizing entity and technology. First, online sessions can provide a preview of subsequent group meetings and, thus, attune the group to forthcoming themes and activities. Second, a reasonable number of comments indicated smoothing effects on undesired group dynamics, such as group drifts or domination. Third, in addition to therapist's online support, group reunions and group support seemed to foster compliance with online components.

I think it [structure] was really helpful. It was necessary, [and] nicely implemented. We knew in advance what we were up to in the [next] session. A good solution in every respect. (B6)

You spend at least one hour with a topic. [...] So I didn't say things, I would take back the next moment. You feel more sorted [...] if you listen and look through it [online exercises] – I suppose a certain structuring happens unconsciously. I would say that's definitely catalysing. (B19)

One participant loved talking and talked a lot. In this situation you have to be concerned about the rest of the group. I would say structure helps in this context. It's also easier for the trainers. (B21)

The previously received [in-session] input gets a good chance [to receive attention]. In this manner, a topic was prepared and introduced and then one can comment on it. This facilitates the start of the conversation. (B14)

With a short video you can get straight to the point. It's definitely a big help and a great tool. [...] The explanation at the beginning. The [media supported] meditation exercises are what I liked most. (B12)

For me, talking about it [online exercises] was an extra motivation. Of course you can watch or read everything on your own, but it's more motivating if you are in a group. (B3)

Having the group, and not only the platform and the exercises, was important. That's what motivated me for exercising. [...] Yes, it was the fact, that [...] you get asked in the group. (B5)

Different preconditions for structure and tailoring

Besides mentioned (dis-) advantages of the blended format per se, blending entails specific implications for the group setting. Even though online and blended interventions allow tailoring to personal needs, individual therapy patients often describe the given predefined treatment structure as restrictive or inflexible. Therefore we put special emphasis on this issue. Interestingly, the number of patients' comments on treatment inflexibility or unmet needs was rather low. In this context, trainers' in-session time management was an issue. However, many patients regarded the structure provided by technology as a guiding thread. Some of the comments in fact suggested different preconceptions and expectations regarding the functional properties of structure, resulting in (mathematically spoken) inversed signs, when compared to tailoring in individual therapy. As people expect less personal time in groups, blending might even lead to more perceived individuality in group treatments.

It can definitely provide structure, especially in a group setting. (B21)

The structure was a real surprise to me. A lot of content, but nicely organised and delivered in the right moment. [...] Some people might ask: What is this? [...] But as the structure progresses, you understand why you did the last exercise. (B22)

I would say structure forced us to come to an end because some patients occupied a lot of time and it did not seem very productive to me. [...] If it is too flexible you go around circles. [...] I don't think it had to be flexible. (B19)

Some things are really good. For example the structure or the "schedule" and to adhere to the "schedule". [...] It was exactly the same as in the clinic. [...] The transfer into daily life is the hitch and a reminder is what helps. (B18)

[...] and it followed a determined procedure. But it was also flexible, so there was not too much content in the sessions and we had time for exchange. [...] It was nicely organised. (B3)

Anyway, in the groups it [personal tempo] did not remain in my control, but in the [online] exercises it remained in my hands. And that's the way it was structured – to have it in my own hands, and to accomplish it the way I want. (B6)

I think with depression it [format] makes sense, because people then have a different motivation to face their problems. But they still receive backing from the group or via the platform, where questions or similar things can be addressed. (B11)

I liked the structure. But I had the feeling, we basically always ran out of time. [...] Because there was a big block in the middle, resulting in interposed questions and then you would also like to talk in the end. Sometimes time got a bit thin. (B8)

There should have been more time for talking and exchange, as this takes time. [...] I think, "doing things" is the last thing that helps or heals me. I would rather need rest and relaxation. (B20)

Negative effects

In the development of new treatments, the occurrence of undesired effects plays an important role. Aside from previously described disadvantages, potential drawbacks concern negative effects of blended groups on participants' interaction, trainers' time and patient management, as well as dissonance due to non-compliance with online exercises and low added-value of online components. Additionally, critical comments regarded design, complexity and interplay of treatment components, as well as technical issues and data safety. These aspects will be subject of a second article, focussing on design and usability issues.

There are these three “pillars (sections)”: the part where we listen and learn, the part where we work at home, and then the interactive part in the group. I think this part should be expanded. (B7)

Maybe it isn't very personal, because it is only eight sessions. (B22)

Some days a bit of extra time for talking and exchange would have done well for me. (B14)

I would rather need a “kick in the butt”. The mobile ringing was not enough for me, because I quickly pushed it away [...] and then later when I found time, I had forgotten it already. (B10)

This effect [commitment with online exercises] starts vanishing when you don't finish the task and you realize that it doesn't have any consequences. (B14)

If the group is led poorly and one only relies on online exercises, it can be harmful. Group and online activities should be made very clear because otherwise, I think, people get discouraged. For example, if you work online but it basically has no relevance for the group. (B11)

I completed it [online tasks] and I thought, it was impersonal. There was no connection in terms of “Who reads this?” or “Will it be answered?” [...] Sometimes I felt displaced (upset? unsettled?) when I didn't complete the exercises. (B2)

I frequently experience stress, because I do not get things done. Therefore this [online exercising] was another potential pitfall for me. (B9)

I don't think it added value. Maybe I'm a little bit old fashioned, but I would have preferred to have it on sheets. (B5)

Discussion

This study contributes to the understanding of blended group treatments for depression and adds a first qualitative perspective to existing literature on blended group therapy in general. In this context, the qualitative approach reveals patients individual appraisals of the blended format and its most

salient features. Key findings regard its positive impact on group treatments, as well as specific phenomena, categorised by the dynamic interplay between group and technology, self-disclosure and therapist online support as well as tailoring and structure. Further, results include information on possible drawbacks and shortcomings of the blended format.

The received overall assessment fits the body of existing literature on blended individual therapy. Many patients described the blended format as a contemporary and versatile approach. In line with prior research [21], flexibility of treatment completion and improved self-management were frequently named advantages. Additionally the blended format can be seen as a treatment facilitator and motivator, when it comes to between session support and the transfer into daily life [22]. In accordance to prior studies, the blended treatment was described as a structured and transparent approach to work with depression [25]. Last but not least, we found evidence for beneficial effects on the therapy process, such as an improved delivery of evidence based treatment components [7].

Motivational agents

Therapist support usually enhances treatment motivation and outcomes in online therapy [35]. In blended groups the therapist is not the only promoting agent for online compliance. Instead, anticipated group reunions and in-session discussions foster the motivational momentum. Classical literature on therapeutic factors in group therapy proposes merely positive agents, such as interpersonal learning, imparting of information [36] and guidance [37]. Those factors have consistently been related with treatment outcome in more recent group therapy studies [38]. Regarding compliance with online homework, some patients reported motivational agents, which better fit phenomena rooted in social psychology – for example the “Challenge and threat”, or the “Learned drive” hypotheses of social facilitation theory [39, 40]. At least on a micro level, certain aversive agents thus seem addable to the interplay of predominantly positive concepts, known from classical literature on therapeutic factors [38], or from literature on self-determination theory in blended care [23].

Treatment transparency and reduction of drift-offs

Patients appreciated the transparency and increased salience of the treatment, as well as its availability between single sessions. In this context, Mansson and colleagues [7] described beneficial effects of computer support on undesired drift-offs from postulated optimal CBT rationales. We want to further differentiate this finding, by suggesting an aligning double function. On the one hand, between session computer support can provide a dramaturgical frame, allowing patients to autonomously prepare or rework a given session, resulting in increased presence of the treatment and its course. On the other hand, in-session media help therapists establish a guiding roadmap through a given session. Technology-based in-session support therefore furthers allegiance beyond those

blended rationales, which provide only between session-support [7]. As for psychological groups (or difficult patient populations), this can also result in reductions of undesired interactional processes, especially therapist drift, group drift or domination.

Self-disclosure and online reinforcement

Self-disclosure is an important but also sensitive subject in psychological groups [41]. The choice of lateral patient-to-therapist communication (via the platform and in absence of other group members), constitutes a safe pathway for personal self-disclosure and, thus, counteracts a main risk factor for adverse outcomes in group therapy: being conflicted about self-disclosure and intimacy [42]. In the broad picture, blending might possess potential to blur distinctions between individual and group therapy, by facilitating seamless shifts between both modalities.

Diverging preconditions

Despite coherent findings with other forms of computer-supported therapy, certain preconditions and phenomena differ in the blended group paradigm. First, adaptability to personal needs is a prominent challenge for online and blended therapy [5, 13]. As a matter of fact, psychological groups have to follow a consensual course and participants agree to this situation when participating. On a basic level, one of the major challenges of online and blended treatments seems to play a minor role in computer and media supported groups. And even more so, the appraisal of technology-induced structure seems to shift from a reported restriction in computer-supported therapy to a consensual guiding thread in psychological groups.

Negative effects of blending

Besides beneficial effects, computer and app support might also be accompanied by undesired effects. For our study's purpose, possible negative effects can be categorised in effects on patient, group and therapist level. Regarding negative effects on individual patients, the spectrum reaches from hassles due to improvable usability or technical issues up to discouragement elicited by non-compliance with online tasks. As homework adherence often relates to treatment success [43, 44], therapists should examine, if non-compliance is caused by doubts in the treatment rationale, or if it rather constitutes typical disease symptoms. For the latter, the therapist back-end system offers new opportunities to individually monitor and reinforce adherence. In this context, we also found signs of suboptimal therapist behaviour. Some therapists occasionally failed to provide online feedback, leading to patients losing some treatment motivation. Additionally, successful in-session media management, in terms of time management and balancing of modalities (e.g. psycho-education vs. discussion or exercising), is an art in itself. As blended interventions require therapists to manage various dramaturgic threads in parallel, extensive training, practical experience and reimbursement of trainers' online-time might help to optimize the course of treatment. Here, further research on

therapists' evaluation of the blended group format is warranted. As a final aspect, blending might excerpt undesired influence on the group as an entity. In line with prior findings, very short treatments might not always be preferred by patients [15] as they restrict important time patients need to familiarize and establish trust [45]. If a given treatment is planned to be short in duration, the intervention can be advertised as a modern psychological training, rather than classical group psychotherapy. This relational frame can help increase curiosity towards the treatment, it might reduce possible stigmatisation or false expectations and it also offers interesting prospects for low resource prevention. However, independent from overall duration, sufficient in-session time for group exercises and discussions should be foreseen.

Strengths and limitations

This study exhibits a variety of noteworthy strengths and limitations. Amongst its most important strengths, this study builds upon a high number of in-depth interviews. In this context, the proportion of patients participating in both, the intervention and the later interviews, was high. Further, we have been able to depict more critical patient views, by including withdrawals, deteriorations and relatively unsatisfied patients (by means of treatment satisfaction and system usability). Regarding data analysis, three psychologist were included in the standardized procedure, resulting in a high level of mutual control. As a last aspect, every intervention has setting- and design-specific properties, resulting in specific patient experiences. Including patients from two different interventions therefore increases generalizability of presented results.

However, the current study also has noteworthy limitations. First, the investigated sample was self-selected and even though patient characteristics (e.g. comorbidity) seem to reflect patient properties in routine care, the interventions took place in a university outpatient setting with affiliated and well trained therapists or student therapists. Therefore, suboptimal therapist behavior might occur more frequently in routine care. Additionally, patients might have been more motivated and compliant, compared to routine care. Secondly, even though we were able to include a variety of experiences, negative selection might have occurred in the absence of extremely critical or very disappointed patients (CSQ = "--"). While the spectrum of experienced system usability (SUS) was depicted exhaustively, a minor selection may have occurred with clients exhibiting a strong overall service dissatisfaction (CSQ). Thirdly, time of assessment varied widely, ranging as far as up to nine months after participation. Thus, as much as one fourth of data may reflect rather distant treatment memories, which tend to be less differentiated and also run at increased risk of memory distortions, compared to such of more recent interviewees. Fourth, one of three involved analysts also authored the current article, resulting in an increased risk of bias. In order to counteract this tendency,

protocols were set up before hand, standardized procedures were implemented and intervention groups were held by independent psychologists.

Conclusions

Put together, results from in-depth interviews underpin previous findings on the feasibility of bGT for depression. The innovative format contributes to a participatory and proactive treatment of depression, and may also be applied in depression prevention. Blended groups yield beneficial modalities and phenomena, increasing treatment quality and addressing some common disadvantages of classical group therapy. However, potential drawbacks should be regarded carefully and interventions should always be tailored to the needs of all three: involved patients, therapists and institutions. Due to the novelty of the approach, further research on therapist and stakeholder perspectives is warranted.

Interview guide

1. What were your expectations regarding the training?
(Supplementary questions: Why did you participate? What was important to you?)
2. How would you describe the training?
(Supplementary questions: What do you think of the training? Do you have any positive or negative memories?)
3. How would you describe the training's format (comprising of group and media components)?
(Supplementary question: What was your experience with the online (and app) components?)
4. How did you use the online platform and the videos? ... the app?
What was your experience their usability like?
5. How was your experience within the group? In your perspective, what are particular advantages and disadvantages that come from a group setting?
 - What did you experience positively?
 - What did you experience negatively?
 - What would you do differently if you could?
6. In your perspective, what are particular advantages and disadvantages of the computer-supported / app-supported format?
 - What did you experience positively?
 - What did you experience negatively?
 - Did you experience any problems?
 - In your opinion, what tasks are those techniques suitable for?
7. Regarding modern media (app + platform + in-session), what would you change if you could?
8. How would you evaluate the blended format?
(Supplementary question: When does/doesn't it make sense to apply this format?)
9. Do you think, the use of modern media (app + platform + in-session) affected group interaction?
10. *There was a lot of predefined content in the training (e.g. PowerPoint presentations during sessions or online videos).* How would you describe the training in terms of structure and flexibility?
11. How did the therapists handle technology?
(Supplementary questions: To what extent did technology support or hinder involved therapists? How would you describe the blended format from the viewpoint of a therapist?)
12. What is the relevancy of modern media in psychological groups?
(Supplementary questions: How meaningful do you view the application of modern media in such trainings? Why?)
13. How would you describe the training's intensity?
14. Was it difficult to motivate yourself for the group or the online tasks? Was there anything particularly difficult to motivate yourself for? (Supplementary questions: What motivated / demotivated you? Were you able to find time for the group or online tasks in your daily life?)
15. What impact did the intervention have on your thoughts, feelings, plans and behaviour? Why did the intervention have this positive or negative impact?
16. Is there anything (important) you would like to add to this conversation? (Supplementary questions: Was there anything you longed for after the training had ended? ... Anything more you would have needed?)

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