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MAKING IMPLEMENTATION PROGRAMMES BETTER. MIXED METHODS CASE STUDY OF AN IMPLEMENTATION PROCESS FOR TWO EVIDENCE-BASED BRIEF PSYCHOTHERAPIES

ABSTRACT

The Ostrobothnia Depression Programme (ODP) was launched to implement two evidence-based treatments (EBTs), behavioural activation and motivational interviewing, and to study their effectiveness. We performed a mixed methods evaluation to extract organization- and programme-related knowledge crucial in sustaining and scaling up the desired programme outcomes. A cross-sectional mixed methods survey was conducted with the programme addressees 4-5 months after the end of the ODP. The realization of case consultation groups was analysed further by interviewing those responsible for them and referring to attendance lists. The results showed that the ODP succeeded in initiating the desired change in clinical practice. Case consultations and training videos intended as reinforcers were underutilized. Weaknesses in the implementation plan and conducting the implementation programme and effectiveness study simultaneously hampered achieving progress and jeopardized the maintenance of the implementation outcomes in the long term. The complete training intervention in the intended EBTs should comprise both workshops and non-optional case consultations. Means to decentralize the clinical support in everyday work should be elaborated in collaboration with the participating teams. It is recommended coaching team leaders to deploy evidence-based managerial practices for facilitation.

KEY WORDS: BEHAVIOURAL ACTIVATION; EVIDENCE-BASED TREATMENT; EVIDENCE-BASED PRACTICE; IMPLEMENTATION PROGRAMME; MENTAL HEALTHCARE; MIXED METHODS; MOTIVATIONAL INTERVIEWING; PROGRAMME EVALUATION

INTRODUCTION

Ability to transfer an evidence-based treatment (EBT) into routine patient care is fundamental to the success of an EBT implementation programme. Deploying means that ensure the long-term survival of the intended EBT is crucial right from the inception of programme design (1,2). The process for routinizing an EBT entails accomplishing the desired change in the treatment practices at organizational level, acquiring adequate skills in delivering the EBT at the individual level as well as sustaining and scaling up the implementation outcomes after the active programme phase at the level of both the organization and individual professionals (3,4).

Normalization Process Theory (NPT) introduces three different sub-processes to achieve and establish successful implementation programme outcomes and to establish the new way of working as the norm: implementation, embedding and integration (1,5). In the context of psychiatric care, the sub-process of implementation typically includes the initial training in an EBT; embedding at least case consultations and other clinical support practices; and the third sub-process, integration, includes all managerial processes and organizational structures that enable the staff to maintain delivery of the EBT in their organizations. Programmes with a comprehensive implementation programme plan deploying evidence-based elements from all these three sub-processes have been shown to have a significant impact on the long-term survival of intended EBTs (1,4,6–9).

The attitudes and actions of management are considered the most decisive factors in promoting innovations in healthcare service organizations, thus paying special attention to them is crucial for the success of implementation programmes (10–14). For individual professionals, the readiness to adopt an innovation is influenced by the attitudes and actions of peers (12–15). Furthermore, multiple identified factors relating to the organization, individuals and the programme itself affect professionals' attitudes toward the innovation and their ultimate actions in adopting it (6,7,12,16–19). One more significant factor affecting implementation programme addressees' long-term adherence to the intended EBT is observability, seeing that some desired change has materialized as a result of applying the EBT (20,21).

In EBT implementation programmes for psychotherapy interventions, 'high-quality or evidence-based training intervention' implies the application of diverse training modalities, such as expert-led lectures accompanied by

interactive and supervised simulations as well as self-study materials (4,6,22). Case consultations subsequent to brief workshops are a prerequisite for acquiring and sustaining adequate skills in the introduced EBTs (4,9). Case consultations individually or in groups have proven equally efficacious, group mode being more cost-effective (23). The contents of both training and case consultations have varied across studies with regard to the extent and mode of delivery.

THE ODP

The regional Ostrobothnia Depression Programme (ODP) (24,25) in Finland comprised an implementation programme for behavioural activation (BA) and motivational interviewing (MI), both evidence-based brief psychotherapy interventions (26,27), and a concurrent effectiveness study of them. The programme addressees were community therapists (registered nurses, practical nurses, licenced psychologists) providing secondary care in public psychiatric services. The programme was launched to combat congested patient flow in secondary psychiatric services. The congestion was a consequence of increase in depressive patients, many of them having non-psychotic comorbidities, referred to specialized care. The community therapists in Finland have traditionally been free to choose the treatment practices (orientation and duration) they provide their patients, resulting in heterogeneous practices. This was also considered to aggravate the congestion. The BA was targeted at the treatment of mood disorders and the MI for augmentation if comorbid substance abuse was also present (i.e., dual-diagnosed patients). The effectiveness-implementation hybrid design (28) entailed the programme addressees to take a stand on both arms of the ODP. They were free choosing to take part with the implementation of the intended EBTs only, go along both arms or to stay outside the programme. The management of the psychiatric department selected the intended EBTs as they appraised them being appropriate for the purpose. According to earlier evidence, they anticipated increasing the provision of evidence-based brief psychotherapy interventions would contribute to making the patient flow more fluent (29,30). The design and implementation practices relied on the launchers' expertise in administration, clinical work and in serving as trainers of healthcare professionals. No explicit theoretical model or framework for implementation was used.

Our mid-term evaluation on the ODP (31) suggested that focusing the evaluation on frontline staff only and their perceptions of the EBTs introduced would be too narrow a perspective to explain any summative outcomes observed at the eventual final evaluation point. This led us to broaden our scope on the therapists' perceptions of the executive practices in running the programme and related organizational aspects. We have reported the final longitudinal summative evaluation of the ODP elsewhere (24). This showed that one third of the therapists could be regarded as active adopters a few months after the end of active programme phase. Furthermore, a substantial part of them applied BA and MI in their everyday work less than could have been expected given their usual clientele. These limited outcomes thereby underscored the importance of pursuing a richer picture on the implementation outcomes obtained and understanding of how and why outcomes of these kind were reached.

STUDY AIMS

With the present mixed methods case study we aimed to access in-depth information on the ODP implementation outcomes as well as on the programme executive and related organizational or managerial factors explaining the outcomes arrived at. We discuss how the knowledge obtained could be made use of in future implementation programmes to achieve more extensive dissemination of any intended psychosocial EBTs at the organizational level and sustaining their delivery.

METHODS

CONTEXT

South Ostrobothnia Hospital District in Finland provides public specialized healthcare services to a population of 200,000. At the time of the ODP, the Adult Psychiatry Department comprised twelve outpatient units and five inpatient wards. The ODP was carried out to improve the treatment of depression with possible comorbidities at six units, of which five were outpatient clinics and one an 18-bed acute ward. The largest unit had two separate teams, and the rest one team each. The total number of therapists regularly employed in the units involved in ODP was 72 and they comprised the target group of the programme. Enrolment in the training as well as responding to the

surveys was voluntary for them. Due to staff turnover, 84 therapists were stepwise trained in the ODP.

The implementation plan of the ODP included workshops with both active and passive training modalities, case consultations in groups, written and videotaped self-study material and regular visits by research nurses to the units involved. A more detailed description of the ODP has been reported elsewhere (24). The study protocol of the effectiveness study has been described in detail in the appropriate register (32).

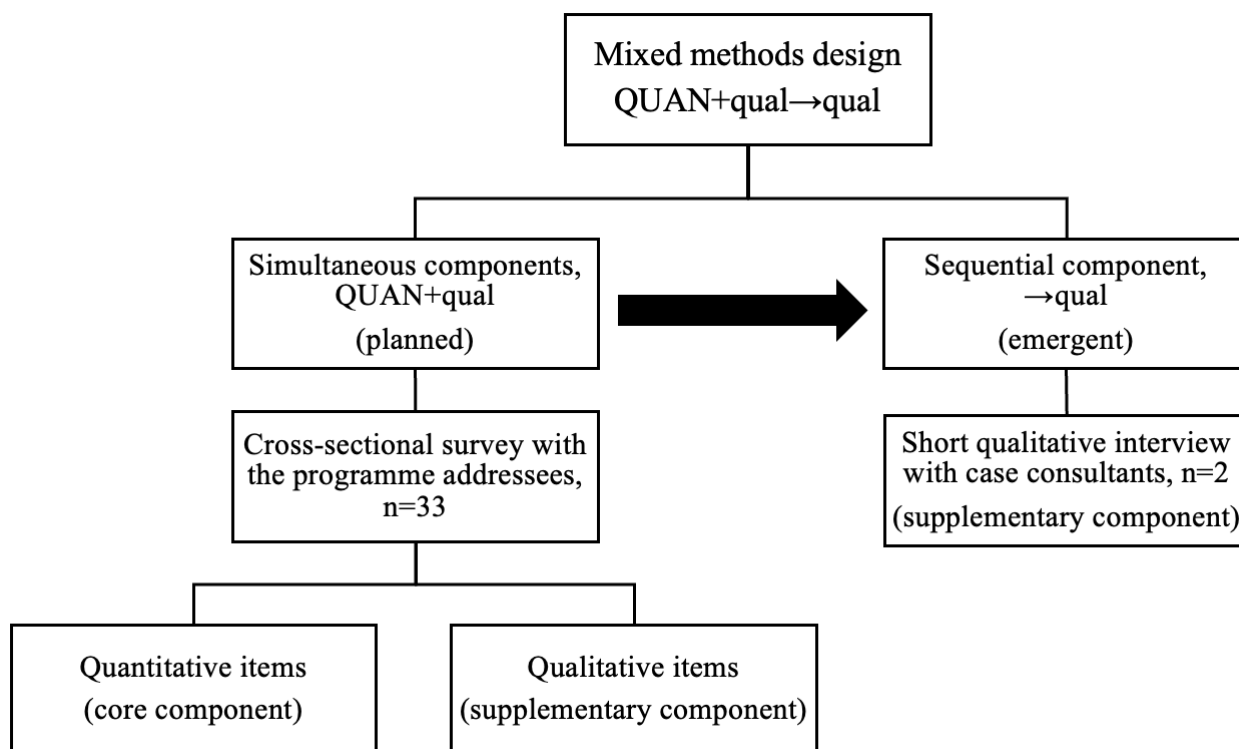
SETTING AND SAMPLE

The present study had a combined simultaneous and sequential mixed methods design (QUAN + qual → qual; *Figure 1*) (33). Quantitative data as the main element, determining the magnitude and direction of the results, while the simultaneously and subsequently collected qualitative data were intended to help in explaining the quantitative results.

A purposeful sampling strategy 'complete target population' was used to form the study sample (34). The sample contained two elements (*Figure 1*): a) it comprised the 33 ODP-trained therapists still employed by the target units and also willing to respond to the survey, and b) the two programme executives responsible for the case consultations. All members of the sample gave their verbal informed consent to participate, for more details see the section "Ethics approval and consent to participate". The study sample of 33 therapists amounted to 46% of the original target group.

All authors but the second (JK) of this article were employed in the ODP managing organization. They and all participants knew each other prior to the study and the participants were likewise aware of the authors' interests in terms of the study.

Figure 1
Mixed methods design



DATA COLLECTION

The first author of this article (LHL) was the principal researcher and gathered the data in March 2014, 4-5 months after the completion of the ODP. A survey of the therapists was administered in each unit during their regular weekly meeting. While initially surveying the survey responses, there emerged a need to enrich the data with interviews with the case consultants. LHL thus built up and conducted a brief semi-structured interview by telephone separately with the two programme executives responsible for the case consultations. Moreover, information on the number of participants in the case consultation groups per session was collected from the list of participants. All the data on the case consultations were integrated during the analysis. Otherwise, the data integration occurred while interpreting and discussing the results.

Instruments

The instruments were specifically designed for the present study. The original instruments were administered in Finnish, the therapists' native language. In reporting the present study, we have adhered to the criteria of Good Reporting of a Mixed Methods Study (GRAMMS) (35).

Quantitative data

Three different types of quantitative measures were used in the survey questionnaire. These comprised the Visual Analogue Scale (VAS), school grade rating (SGR) and multiple choice. The VAS, with a continuum of 0-100 points, is widely used for measuring different individual attitudes or perceptions (36). On the SGR scale 10 equals excellent, 9 very good, 8 good, 7 satisfactory, 6 moderate, 5 adequate and 4 fail. *Table 1* illustrates the use of VAS or SGR with each factor. *Table 2* introduces the item of multiple choice on six possible factors enabling or inhibiting the participants in their efforts to implement new practices. The numbers of participants in case consultation groups were calculated from the attendance lists.

Table 1. Factor and respective quantitative measuring scale

Factor	Measure
Therapist's perception of progress in each six main clinical goals	VAS
Therapist's overall appraisal of whether the ODP had a positive impact on the quality of their work (Impact-SGR)	SGR
Therapist's overall perception of the level of change in clinical practices that the ODP brought at team level (Change-index)	VAS
Therapist's appraisal of the ODP training intervention	SGR
Had the therapist watched the training videos available in the employer's website? —> if "yes"	yes - no SGR
Had the therapist participated in the case consultation groups —> if "yes"	yes - no SGR

Abbreviations: VAS = Visual Analogue Scale; SGR = school grade rating; ODP = Ostrobothnia Depression Programme

Table 2. The item examining some organization-related enablers or inhibitors regarding an implementation programme

Some team- or organization-related factors that may enable or inhibit progress in clinical work. We ask you to select all items mentioned in the table which have enhanced or inhibited progress in the treatment of depression during the Ostrobothnia Depression Programme	
Enablers	
1	Support from the administrative management
2	Support from the team leader
3	Support from peers
4	Time spent practising with the team [the programme]
5	Opportunities to spend time practising independently [the programme]
6	Opportunity to acquire new skills
7	Some other reason 1, what _____
8	Some other reason 2, what _____
Inhibitors	
1	Lack of support from the administrative management
2	Lack of support from the team leader
3	Lack of support from peers
4	Lack of time to practice with the team [the programme]
5	Insufficient opportunities to spend time practising independently [the programme]
6	Lack of opportunities to acquire new skills
7	Some other reason 1, what _____
8	Some other reason 2, what _____

Note. A blank option was regarded as a neutral experience

Besides extensive dissemination of the intended EBTs among the programme addressees, six clinical dimensions derived from the core characteristics of BA and MI were determined as the main clinical goals: a) comprehensive initial examination routinized with depressive patients, b) clear goals set at the beginning of therapy, c) treatment is terminated when the goals have been satisfactorily achieved or other conditions necessitate the termination, d) substance abuse evaluated early in treatment, e) use of brief psychotherapies enhanced, f) complicated problems detected earlier in treatment leading to more comprehensive needs-based treatment. Operationalization of these items is presented in *Table 3*.

The operationalization of the programme addressees' observations on the progress achieved with the ODP and applying the intended EBTs in their everyday work (observability) is presented in *Table 4*. This item was labelled as Change index. The operationalization of the programme addressees' experience about the quality of the collective support received from their leaders and peers as well as a variety of team-related phenomena and individual issues, such as competing interests or programmes and the time resource available to embrace the intended EBTs are presented in *Tables 2 and 4*. Including items exploring these aspects above was based not only on their evidence-based nature but also on the fact that the programme executives faced related challenges while running the ODP.

Table 3. Data regarding responses to items on progress on the six clinical dimensions in applying Behavioural activation and Motivational interviewing

Item ^b	Mean	SD
To what extent did the practices progress on the following clinical dimensions during the Ostrobothnia Depression Programme?		
a. Comprehensive initial examination routinized with depressive patients	58	24
b. Clear goals are set at the beginning of therapy	64	9
c. Treatment terminated until the goals have been satisfactorily achieved, or the conditions do not allow the treatment to continue	58	22
d. Substance abuse is evaluated early in treatment	71	22
e. Use of brief psychotherapies enhanced	59	21
f. Complicated problems are detected earlier in treatment leading to more comprehensive needs-based treatment	61	19

^bn = 33 for all items in Visual Analogue Scale with extremities 0 = “not at all” and 100 = “as well as possible”. The means were graded as <50 = failure, 50 = moderate and >50 success

Table 4. Data regarding perceived support from the team leaders, Change index and some possible obstacles

Item	Mean	SD
To what extent you perceived the team leader supported your participation in the Ostrobothnia Depression Programme?	60	29
The ODP has led to changes in the clinical practice followed by our team (Change index)	41	24
To what extent have the following possibly hampered the execution of the Ostrobothnia Depression Programme in your team?		
a. Other simultaneous developmental tasks or projects	60	29
b. Personal exhaustion due to a variety of projects	40	30
c. Other current team-related internal issue	44	33
d. Other current organizational issue external to own team	51	33

Note: n = 33 for all items in Visual Analogue Scale with extremities 0 = “not at all” or “hampered very seriously” and 100 = “as well as possible” or “did not hamper at all”. The means were graded as <50 = failure or serious, 50 = moderate and >50 success or easy

QUALITATIVE DATA

Two open-ended items were used in the questionnaire and a focused brief semi-structured interview with two programme executives was conducted.

The first survey question elicited therapists’ general perceptions of the goals of the ODP and read: “Name the three most important goals that you perceive the ODP was intended for.” A twofold open-ended question - ‘Censure and Praise’ - was used to collect negative and positive feedback on the ODP: a) “Name two major issues which should have been done in some other way during the ODP”, and b) “Name two major issues which succeeded particularly well in executing the ODP”.

The trainer-consultant and research nurse responsible for the case consultation groups were interviewed retrospectively using a semi-structured protocol (see Additional File 2) to add to the information on participation activity in the case consultations. The interviews were conducted by telephone and separately, they lasted about twenty minutes each. The questions were focused and formulated to elicit information that would be easily articulated and easy to take notes on.

DATA ANALYSES

Analysis of quantitative variables

Frequencies were calculated for the classified variables. Means and standard deviations (SD) were calculated for VASs and SGRs. Cronbach’s alpha was calculated to test the reliability of the six-item set for the main clinical goals.

Spearman’s correlations were calculated between the following means: Impact-SGR, perceived support from team leaders, the Change index and each four possible obstacles. Two hierarchical linear regression models were used to predict the Impact-SGR. The first model included support from team leaders and four possible obstacles as explanatory variables. The second model included the explanatory variables of the first model and the Change index.

Activity rates were calculated for watching videos and attending case consultations.

Qualitative analysis

Responses to both open-ended questions - the therapists’ perceptions of the three most important goals of the ODP and the Censure and Praise - were both analysed using qualitative content analysis (37). Manifest expressions were

objects of interest. The item Censure and Praise was further analysed by a typological method to form the respective model cases (38). The analysis methods are described in more detail in [Additional File 1](#).

Mixed methods analysis of the realization of the case consultation groups

A report on the short semi-structured interviews with those responsible for the case consultations was written immediately after the interview on the basis of the notes taken and elaborated after receipt of exact information on attendance rates by session. The interview protocol and the report on the realization of the case consultation groups (English translation) are presented in [Additional File 2](#). The first author of this article (LHL) extracted possible explanatory factors pertaining to attendance at the case consultations from both that report and the therapists' responses to Censure and Praise. Two different techniques were used to ensure the credibility of the data on the case consultations and the results extracted: triangulation and subjecting the data report to member checking (39). Triangulation refers to the use of two or more different techniques or data sources to explore the same object (39).

RESULTS

QUANTITATIVE DATA

The therapists' perceptions of progress achieved (mean±SD) in the main clinical goals, each measured by VAS, varied between 58±24 and 71±20 ([Table 3](#)). Addressing substance abuse early in treatment obtained the highest scores, followed by enhancement of goal setting at the beginning of the therapy. The reliability of this six-item set was 0.8 (Cronbach's alpha).

The therapists appraised the positive impact of the ODP on their own work with a mean SGR of 6.8 (SD 1.1). Their perceptions of the degree of the Change index, support from team leaders and four possible obstacles to being engaged in the ODP are presented in [Table 4](#). Of these obstacles, "Personal exhaustion due to a variety of projects" manifested with the lowest scores of 40±30 (mean±SD) and the "Other current team-related internal issue" came after with scores of 44±33, meaning that those issues did indeed hamper the execution of the ODP.

The training programme obtained a mean SGR of 7.5 (SD 1.3, n = 33). The training videos obtained a mean SGR of 7.9 (SD 0.6, n = 21), and the case consultations groups of 7.9 (SD 0.8, n = 18). Twelve (36%) of the responding therapists had not watched the videos and 15 (45%) had not attended the case consultation groups.

In the linear regression models explaining the Impact-SGR, support from team leaders was a significant explanatory variable in the first model and Change index in the second model (the support from team leaders lost its significance in the second model) ([Table 5](#)).

The question on factors that may enhance or inhibit progress ([Figure 2](#)), "opportunity to acquire new skills" was markedly stressed as enhancing and two items indicating support from peers and managers also were stressed slightly positively. By contrast, the experiences of time resources available for practising alone and together with the team both suggested a deficit, which inhibited progress.

Table 5. Coefficients of linear regression mediator model predicting the therapists' appraisal of Ostrobothnia Depression Programme (ODP) with a school grade rating

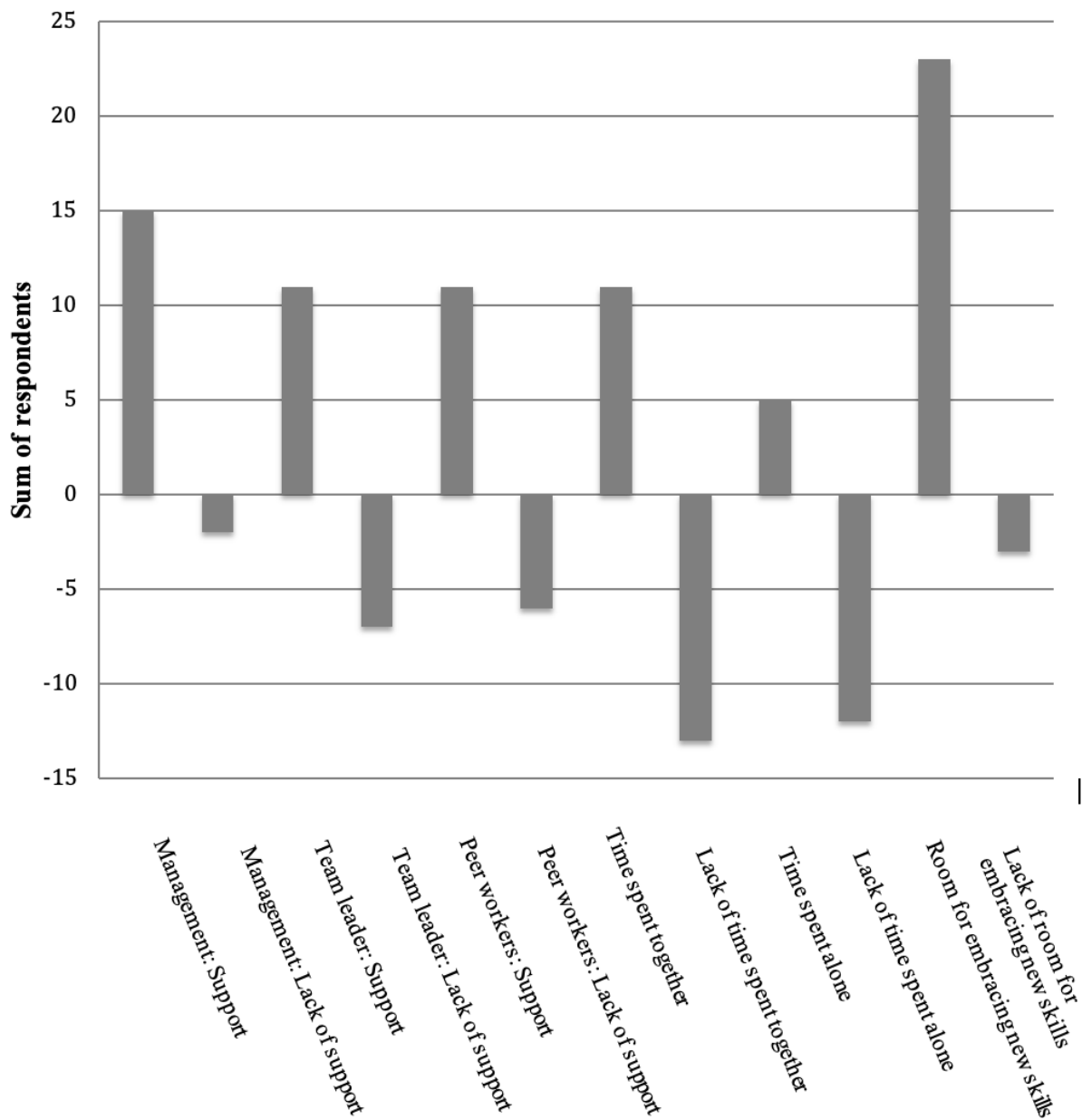
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1 ^a	Support from the team leader ^b	0.014	0.006	0.362	0.039
2 ^a	Support from the team leader ^b	0.008	0.006	0.220	0.181
	The ODP has led to change in clinical practice followed by the teams (Change index) ^c	0.020	0.007	0.442	0.010

^aAdjusted R Squares were 0.103 and 0.259 for models 1 and 2 respectively

^bThe quality of programme facilitation the programme addressees perceive receiving from their team leaders

^cThe extent of change in local clinical practice the programme addressees perceive the ODP has brought about

Figure 2. The sum of responses where the therapists perceived whether each specific team-related factor enabled (positive direction on the y-axis) or inhibited (negative direction on the y-axis) progress in the treatment of depression during the Ostrobothnia Depression Programme



QUALITATIVE DATA

The open-ended question exploring the therapists' perceptions of the three most important goals of the ODP obtained 92 responses. The question itself provided the main category: 'therapists' perceptions of the most important goals of the ODP'. Subcategory formation was data driven but also reflected the ODP launchers' ambitions about domains of possible programme achievements. This yielded the four following subcategories and the responses distributed between them as follows: Perspective of own work, e.g., new tools, n = 25; Perspective of patient, e.g., better treatment, n = 25; Perspective of team, e.g., common practices, n = 21; and Perspective of research e.g., comparing EBT and treatment as usual, n = 21. The analysis process and the formation of the coding frame are presented in more detail in [Additional File 1](#).

In the qualitative content analysis of the open-ended questions for feedback, the item itself provided the two main categories: Censure (C) and Praise (P). These responses were analysed jointly and this yielded three data-driven subcategories: feedback on training and clinical support, feedback on the treatment model implemented and feedback on the simultaneously conducted implementation programme and clinical research. A few responses could not be classified, and were therefore labelled as non-categorized feedback. Each response was allocated to an appropriate subcategory. The data were further analysed by the typological method, which resulted in model cases of C and P types for each of the three subcategories. A concise summary of these is presented below. The process of the analysis and the model cases are presented in more detail in [Additional File 1](#).

Feedback on training and clinical support comprises satisfaction and dissatisfaction with equal emphasis. The C type would have wished for decentralized clinical support, more comprehensive training and more thorough onboarding of newcomers.

Feedback on the treatment model implemented was decidedly positive, demonstrating the feasibility of the treatment model. Moreover, the integrated treatment model was reported to facilitate addressing the dual diagnosed patients' needs during the treatment. The opposite experience, but with less emphasis, highlighted the inflexibility of the treatment model.

Feedback on the simultaneously conducted implementation programme and effectiveness study was mostly critical regarding the concurrent timing, practice of administering the research and unfair accumulation of workload related to the patients enrolled in the clinical research.

MIXED METHODS ANALYSIS OF THE CASE CONSULTATIONS

Attendance at the case consultation groups was at its highest during the first year and then declined slightly until it fell considerably during the last year, due to reasons related to both the organization and to individuals. The following possible explanatory factors were identified: variation in geographical distances, differences in attitude towards the ODP between the units, a change in the profile of the clientele during the programme and the fact that some therapists became discouraged over time. Two units were located very close to the venue and the rest about an hour away by car, thus reaching the case consultations was quite time-consuming for clearly more than half of the therapists. Of the two closest units, one achieved the highest attendance rate and the other the lowest rate. In the most active unit, the team leaders actively allocated time to enable the therapists to attend. By contrast, in the most inactive unit, the ODP had been subject to considerable scepticism from the very beginning. The analysis of the attendance activity to the case consultations is presented in more detail in [Additional File 2](#).

DISCUSSION

We performed a comprehensive analysis of the ODP participating therapists' perceptions of the success with the main clinical goals of applying the two EBTs, BA and MI, as well as programme executive and related organizational or managerial issues likely to enable or inhibit their implementation. The present results complement our earlier summative evaluation (24). The main results of our study were twofold. First, moderate improvement was achieved in clinical goals pertaining to applying the implemented EBTs, with improvement of the integrative treatment of dual-diagnosed patients as a spearhead. Second, the results spotlighted the importance of the availability and accessibility of clinical support as well as the allocation of time resources to embrace new and complex treatment practices. Support from the leadership and the influence of peers both played a significant role in achieving progress. Conversely, lack of decentralized clinical support and shortage of time for practising were two factors, which, according to the therapists, had impeded progress. Also, the open feedback revealed a need for more thorough training for some of the therapists and better onboarding of newcomers. Our findings are in line with those of earlier research (10,15,33–36).

In psychiatric care, the adoption of EBTs tends to disseminate among the target group less during an active programme phase than the programme launchers might expect (14,17,37,38). Furthermore, without appropriate maintenance strategies their use tends to decline over time. Hence, deploying specific strategies for integrating new EBTs into an organization's routine structures and processes is a prerequisite for sustaining implementation outcomes and scaling them up after the active programme phase. (1,2,39). Unfortunately, a total lack of such strategies was found in our earlier published evaluation of the ODP implementation plan (24), which will jeopardize the sustainability of the achieved outcomes.

Our present results show that the case consultations and the training videos were both underutilized. Nearly half of the responding therapists had not attended the case consultation groups and about a third had not made use of the training videos. To our knowledge, there is a lack of studies addressing activity in utilizing such training videos in the context of implementation programmes. However, providing self-study material to facilitate practising has been included among the best practices contributing to the implementation of innovations (40).

The above raises some fundamental questions: How to address the justified call for more comprehensive training and clinical support as well as time resources for acquiring the necessary skills in the target EBT? In addition, what could be the appropriate and feasible integration strategies to ensure the long-term survival of EBT implementation programme outcomes? In fact, these questions cannot be answered separately; they rather form an interconnected network of strategies and actions. We will next articulate some possible views on these critical questions drawing on our present results and earlier research in order to improve the effectiveness of future programmes.

ROLE OF CASE CONSULTATIONS

Case consultations have been shown to be essential in implementing a psychotherapeutic EBT in terms of dissemination and sustained adoption (9,14,35). They make it possible to enhance attendees' knowledge of the EBT introduced and strengthen their skills in applying it in their everyday work. Organizing the case consultations more accessibly may be one option to satisfy the need for the more robust clinical support the therapists called for in the ODP.

An implementation project at the Veterans Health Administration (VHA) in the USA achieved a rate of 77% in adopting prolonged exposure therapy, an EBT for the treatment of post-traumatic stress disorder (14,35). Attending the case consultations after the four-day workshop was mandatory, which it was not in our ODP. Furthermore, the case consultations were carried out by telephone twice a week both in groups and individually, and they were supported by audio recordings of the therapy sessions. A minimum of two cases treated with a good level of competency was required before the issue of a certificate of having completed training. In another study, a cognitive behavioural therapy (CBT) application was implemented among community therapists by means of a one-day workshop followed by optional weekly case consultations for three months (4). The two-year follow-up showed that the time the therapists spent in the consultations during the active programme phase correlated positively with the sustained use of the CBT application (9).

In the ODP we identified factors enabling and inhibiting attendance at the case consultations. The positive attitude of team leaders together with their active allocation of time enabled more frequent attendance at the case consultations. Instead, the considerable time needed to travel to the venue for most of the therapists and, in one unit, a sceptical attitude toward the programme were two obvious factors undermining attendance.

The evidence reported above supports merging workshops and case consultations into one entity or training programme. The case consultations should not be optional for therapists enrolled on the programme. However, attending the case consultations should be made convenient and easy. The example of the programme at the VHA encourages deploying remote access, e.g., feasible web applications are available today. Also, positive means of noting an individual trainee's progress in skills would be fruitful. At the VHA, this was sought by the requirement to have completed treatment of two cases with a good level of competency before being issued with a certificate of completed training.

TEAM LEVEL CLINICAL SUPPORT AND TIME ALLOCATION

In the ODP, the therapists called for the clinical support to be decentralized. We regard this as a request to enhance local or team level strategies to promote delivery of the target EBTs. In addition, in the therapists' experience, lack of time hampered the acquisition of the new skills during

everyday work, which is corroborated in other studies (35,36). Programmes come and go, organizations continue. Thus, clinical support practices should be incorporated into the organizations' routine structures (1). Team leaders are a formal and central influential stakeholder group to collaborate with as early as in the pre-programme phase in order to achieve progress on this issue. Their actions are crucial to the fulfilment of organizational strategies, fostering a positive implementation climate and sustaining implementation outcomes at the team level (10,11). However, it is not self-evident that team leaders, who usually serve as both clinicians and leaders, are aware of all the means available to contribute to an implementation process.

Our results pinpoint two possible evidence-based means available to the team leaders in addressing the need for more robust local clinical support in implementing an EBT: empowering programme champions and allocation of time resources needed to make good use of the programme facilities. In our case, a programme champion refers to a therapist who would be among the first to take over a new EBT and so be able to provide peer support to colleagues in embracing the EBT (33,41). Some of these early adopters may be keen to acquire more thorough training to be nominated as formal peer facilitators (40), which we recommend taking into account in future implementation plans right from the outset. The team leaders could foster local support practices by sponsoring the rise of socially acknowledged peer facilitators and guiding their teams to prioritize the use of the intended EBT (41). Managerial actions of this kind have been proven to promote the dissemination of the EBTs introduced and sustain their delivery (13,15,35,42). Allocating time for studying the self-study material jointly with the team, e.g., watching the training videos, could be an easily harnessed strategy for team leaders to foster implementation. This also gives them opportunities to render the climate more favourable towards the EBT introduced. Beidas et al. (43) have described an advanced means of concerted behavioural rehearsal should some teams become more inspired by investing greater effort in learning together.

MANAGERIAL PRACTICES AND BUILDING ORGANIZATIONAL STRUCTURES AS INTEGRATION STRATEGIES

The NPT concept 'integration strategies' refers to all deliberately deployed processes intended to support the personnel in maintaining the adoption of the intended EBTs in their organization (1). Lack of integration strategies

emerged in the longitudinal summative evaluation of the ODP (24). The stability of leadership and the leadership style have been shown to be the main issues having a significant impact on the long-term survival of programme outcomes (11,38,44). Aarons et al. (44) stated that frontline transformational leadership predicted sustaining of implementation outcomes while passive-avoidant leadership predicted failure to sustain. In the case of ODP, some of the therapists reported that their team leaders supported the EBTs' implementation. However, we lack details on this support. Peterson et al. (11) defined more precisely the relevant tasks the leaders should deploy to ensure the long-term vitality of the outcomes: field mentoring, group supervision, training outcome monitoring and fidelity reviews. It would be highly desirable that the original programme plan should involve strategies that coach the leaders to establish those tasks. Proctor et al. (49) have reported a training intervention in implementation practices for leaders, which could provide evidence-based tools being deployed in healthcare organizations and thus enhance the quality of EBT implementation programmes. This would partly address the challenge of implementing evidence-based implementation strategies (50).

Field mentoring and group supervision refer to practices that involve the team leaders spending time with their teams in regular meetings discussing successes and concerns in applying the intended EBT and facilitating its delivery (45). These enable the leaders to be aware of the vitality of the EBT and the level of competence in it among their teams. Awareness of this information is a prerequisite for being able to plan appropriate actions to further promote the implementation. These actions include not only addressing the need for complementary training after the active phase of a programme, but also the need for stable mechanisms that make it possible to guide newcomers to get training in the basic skills of the EBT (45). Our results revealed a deficit in building permanent structures for addressing the continued need for training in the EBTs introduced. As a part of an EBT implementation programme, it should be ascertained that there are available permanent organizational structures and policies that enable the long-term maintenance of the EBT. If these are lacking, they should be built up.

LIMITATIONS

The modest response activity constitutes the major limitation to the study. No information was collected from the decliners and therefore their attitudes towards the ODP

remain unknown. Bias of this kind was difficult to avoid in a real-world setting when anonymity was preserved, and there was no explicit protocol for enrolling participants in the implementation study. In addition, lack of a separate engagement strategy for the team leaders may also have affected the response activity. However, the good quality of the responses obtained to the open-ended questions permits speculation on the likely experiences of the non-responders. A second limitation was the use of the measures developed for this particular study, which impedes the generalizability of the present results and also comparison with earlier studies. A similar challenge has also been common in earlier implementation studies (16,46,47). The interviews with those who served as case consultants were neither audio recorded nor transcribed, which deviates from the conventional way of analysing a qualitative research interview and thus undermines the quality of the respective part of the data. On the other hand, the use of triangulation and member checking enhanced the credibility of this part of the data. However, we decided not to audio record and transcribe the interviews as the information of interest was clearly verbally articulated, the questions were short and specific and both interviews of short duration.

CONCLUSIONS

Based on our results we highlight three important aspects in terms of an EBT implementation programme: 1) the role of team leaders, 2) the structure of the training intervention in the EBT and providing low threshold clinical support as well as 3) stable organizational structures that ensure the long-term maintenance of the EBTs implemented. The team leaders should be engaged with the implementation programme at an early stage to ensure its successful execution and long-term survival of its outcomes. This includes coaching the leaders to deploy evidence-based managerial practices, connected to, e.g., ‘transformational leadership’, to promote the EBT implementation actively among their teams. We suggest combining workshops and case consultations as an integrated training package. Completion of training would entail accomplishing both components. Consultative support should also be available during the everyday work. Access to consultations should be made as easy as possible from the staff’s point of view. This need could be addressed, for example, by training and nominating local peer facilitators. To ensure the sustained delivery of the EBT despite staff turnover the organization

should establish stable structures enabling newcomers to be trained in the EBT even after its initial implementation programme. The implications we presented above fall into NPT categories embedding and integration, which have a decisive role in terms of the reproduction and longevity of EBT implementation programme outcomes.

ABBREVIATIONS

BA:	Behavioural activation
CBT:	Cognitive behavioural therapy
C and P types:	Censure and praise model cases or types
EBT:	Evidence-based treatment
GRAMMS:	Good Reporting of a Mixed Methods Study
MI:	Motivational interviewing
NPT:	Normalization Process Theory
ODP:	Ostrobothnia Depression Programme
SD:	Standard deviation
SGR:	School grade rating
USA:	United States of America
VAS:	Visual Analogue Scale
VHA:	Veterans Health Administration

DECLARATIONS

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The ODP-related implementation research was not medical research nor did it carry any experimental initiatives or interventions. Its participants were all staff members. The survey was conducted anonymously. When the ODP-enrolled therapists were asked to respond to the survey they were verbally informed that the answers would be analysed and the results published, and that responding would serve as consent both to participate and to publication. Further, they were informed that responding was voluntary, and responding or not would not affect their status in any way. The ODP was managed and supported by the local administrative staff. According to the Finnish research regulations, the ODP-related implementation research was exempt from ethical review (Finnish National Board of Research Integrity, TENK publications 3/2019). Hence the present study was not subjected to ethical review.

CONSENT TO PUBLICATION

See the previous section.

AVAILABILITY OF DATA AND MATERIALS

The original datasets (in Finnish) generated and analysed during the present study are available from the corresponding author on request. Only the results presented in the article have been translated into English. The previous version of this manuscript has been published earlier as a preprint in Research Square (54).

DISCLOSURE STATEMENT

Authors LHL, AL and OK were employed in the target organization during the study. In addition, AL and OK were in charge of designing and running the programme under study. JK has no conflicts of interest to disclose.

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AUTHORS' CONTRIBUTIONS

LHL and OK prepared the present study's conception and design. LHL performed material preparation and data collection. All authors contributed to the analysis and interpretation of the results. LHL wrote the first draft of the manuscript and all authors commented on previous versions of it. All authors have read and approved the manuscript.

Supplementary Material

Supplementary data are available at [Psychiatra Fennica online](#)

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