Barriers and Facilitators to the Implementation of an Eating Disorders Knowledge Exchange Program for Non-specialist Professionals

Lea Thaler, PhD
Chloé Paquin-Hodge, PsyD
Anne-Gaëlle Leloup, MA
Aimée Wallace, BA
Stephanie Oliverio, BSc
Shiri Freiwald, MA
Mimi Israel, MD
Howard Steiger, PhD

Abstract

Despite availability of evidence-based treatments for eating disorders (EDs), individuals with EDs often do not receive informed treatment. Training of non-specialized clinicians by experienced professionals through knowledge exchange (KE) programs is an effective way to enhance accessibility to evidence-based treatments for EDs. The authors conducted a qualitative analysis of factors that facilitated or impeded the uptake of an ED-focused KE program. Semi-structured interviews were conducted with mental health professionals (n = 43) and managers (n = 11) at 13 community mental-health sites at which the KE program was offered. Data were analyzed using a qualitative content analysis. Key facilitators identified were management support for the program and building competence through ongoing supervision of clinicians. Main barriers were limited access to ED patients to treat and having insufficient time to apply ED interventions in front-line settings. The results provide insights into the practical imperatives involved in implementing a KE initiative for ED treatment.

Lea Thaler PhD and Chloé Paquin-Hodge have shared 1st authorship.

Address correspondence to Lea Thaler, Eating Disorders Continuum, Douglas University Institute, Montreal West Island Integrated Health and Social Services Centre, Verdun, Montreal, QC, Canada. lea.thaler@douglas.mcgill.ca.

The Journal of Behavioral Health Services & Research, 2022. 1–16 © 2022, National Council for Mental Wellbeing. DOI 10.1007/s11414-022-09822-3

Published online: 30 September 2022

Chloé Paquin-Hodge, Eating Disorders Continuum, Douglas University Institute, Montreal West Island Integrated Health and Social Services Centre, Verdun, Montreal, QC, Canada. lea.thaler@douglas.mcgill.ca.
Stephanie Oliverio, Eating Disorders Continuum, Douglas University Institute, Montreal West Island Integrated Health and Social Services Centre, Verdun, Montreal, QC, Canada. lea.thaler@douglas.mcgill.ca.
Shiri Freiwald, Eating Disorders Continuum, Douglas University Institute, Montreal West Island Integrated Health and Social Services Centre, Verdun, Montreal, QC, Canada. lea.thaler@douglas.mcgill.ca.
Mimi Israel, Eating Disorders Continuum, Douglas University Institute, Montreal West Island Integrated Health and Social Services Centre, Verdun, Montreal, QC, Canada. lea.thaler@douglas.mcgill.ca.
Howard Steiger, Eating Disorders Continuum, Douglas University Institute, Montreal West Island Integrated Health and Social Services Centre, Verdun, Montreal, QC, Canada. lea.thaler@douglas.mcgill.ca.
Lea Thaler, Psychiatry Department, McGill University, Montreal, QC, Canada.
Chloé Paquin-Hodge, Psychiatry Department, McGill University, Montreal, QC, Canada.
Mimi Israel, Psychiatry Department, McGill University, Montreal, QC, Canada.
Howard Steiger, Psychiatry Department, McGill University, Montreal, QC, Canada.
Anne-Gaëlle Leloup, Baca Clinic, Montreal, QC, Canada.
Aimée Wallace, Department of Psychology, McGill University, Montreal, QC, Canada.
Howard Steiger, Department of Psychology, McGill University, Montreal, QC, Canada.
Stephanie Oliverio, Research Centre, Douglas University Institute, Montreal, QC, Canada.

Introduction

Despite the growing body of evidence-based treatments for various types of eating disorders (EDs), far too few individuals receive informed care.[1,2] While cognitive behavior therapy (CBT) is one of the evidence-based treatments for anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED), only a small percentage (22.9%) of therapists treating EDs were found to use CBT with their clients.[3] More generally, only between 6 and 35% of ED specialist clinicians report adhering to evidence-based protocols.[4] Research also suggests a contrast between care provided by specialists and community or front-line healthcare providers. Therapists working in specialized ED centers report regularly using evidence-based approaches with their clients, whereas community therapists in non-specialized settings report most often using a variety of therapies derived from empirically supported treatments (ESTs) and/or therapies not supported by empirical research.[1,5] Furthermore, therapists often hold negative attitudes toward the application of ESTs with clients because such treatments are often seen as rigid or unconducive to forming a solid therapeutic alliance.[1,5] As a result, individuals are often denied access to treatment, face extended wait times for treatment, or are provided with treatment that is either not needed or can produce worse outcomes on average for patients.[5–7]

In Canada, knowledge exchange (KE) programs are recognized as a tool to minimize the research-practice gap and to meet the growing demand of "evidence-based, cost-effective, and accountable healthcare".[6] Such programs are seen as a way of developing the ability of a wide range of front-line treatment providers (e.g., psychologists, psychotherapists, social workers, and nurses) to apply ESTs.[1,2,6] For training to result in meaningful changes in clinical practice, "at least three components of training are necessary: attending a workshop led by an expert in the treatment, detailed study of a treatment manual, and, usually thought as most important, practicing the treatment with ongoing expert supervision".[8]

The authors have previously published data from a knowledge exchange (KE) program in which they examined the implementation and impact of a province-wide program of KE aimed at developing capacity for the treatment of people with EDs.[9] The program was designed to equip therapists working in non-specialized healthcare installations with skills to evaluate and treat people with EDs. In their previous paper, trainings had been conducted at 21 institutions, and at the time of writing the current manuscript, 34 sites had received trainings. The majority of professional reported satisfaction with the KE program and indicated that the trainings enhanced their confidence and ability to treat patients with EDs. A subset of clinicians received case supervision with a specialist ED therapist and

followed patients with EDs ($n = 119$). Treated patients showed significant improvements on eating and depressive symptoms and reported satisfaction with the treatments they received.[9]

Well-designed and delivered KE programs are necessary to impart skills and expertise from one group of professionals to another. Studies on the uptake of knowledge in health care settings have identified various factors that act as either facilitators or barriers. Among the main facilitators identified were management support, interest from decision makers and clinicians, and the organizational culture (e.g., alignment between the mission of specialist training providers and community health workers). Main barriers seen were client and community factors (e.g., recruitment/retention issues), limited resources (e.g., staff, time, workloads, medical equipment), and lack of training. Personal factors (e.g., attitudes, habits, and skills of both management and clinicians) can act as either barriers or facilitators.[1,8,10] In the context of ED training, a study examined the uptake of family-based treatment (FBT) among community clinicians treating children and adolescents with AN.[11] Therapists participating in the program stressed that the adoption of FBT was facilitated by support from clinical managers, the use of evidence-based guideline interventions, ongoing case supervision, and the creation of local experts in FBT.

Over the course of implementing the current KE program (designed to train non-specialized professionals to treat EDs in community settings), the authors became aware of some obstacles to the successful implementation and uptake of the project at various sites. Based on previous research outlining factors necessary for successful implementation of KE programs, the current study explored the factors that facilitated or impeded the uptake of the program across different sites. To do so, the authors conducted a qualitative analysis of the barriers and facilitators to the implementation of an eating disorder-focused KE program in the province of Québec, Canada. Factors operating at various levels (personal, interpersonal, and organizational) were examined through qualitative interviews with various stakeholders in the project (trained clinicians and managers). As previously mentioned, the ED-KE program in question was implemented to build capacity of community healthcare workers by providing them with best-practice training and the skills necessary to be able to assess and treat people with AN or BN spectrum EDs presenting at the community-care level.

Methods

Ethics approval was obtained from the Research Ethics Board (REB) of the Montreal West Island Integrated University Health and Social Service Centre. In addition, all healthcare units in which data was collected received ethics approval from their in-house ethics boards. Informed consent was obtained from all participants in the study. Data were archived in accordance with REB guidelines.

KE program

The eating disorder continuum (EDC) is the province of Québec's main specialized treatment program for adults with EDs. Located at the Douglas Mental Health University Institute (referred to as the Douglas) in Montreal, the EDC employs a range of ED specialists, such as psychologists, psychotherapists, nutritionists, psychiatrists, and social workers. Since 2009, the EDC has conducted a large-scale knowledge exchange (KE) program to train non-specialized professionals to assess and treat EDs in their community settings. Using a multidisciplinary treatment model that is considered to be a best-practice approach,[12] training was offered to a variety of professionals who typically worked within a multidisciplinary team. Trainings in the community-based healthcare centers consisted of a 1-day overview workshop focusing on ED detection, assessment, and basic evidence-based treatment principles that was open to all professionals from the community center who expressed interest. Afterwards, one or two half-day trainings on CBT tools, motivational

interviewing, and dialectical behavior therapy were offered to a subgroup of professionals that wanted to become local ED "experts" and who would thereafter follow ED patients. Optionally, participants received on-site observation of group therapy offered at the specialized ED service. Following the trainings, ongoing supervision provided by specialists from the EDC was offered at roughly 6–8-week intervals. Training content was based on the best-practice standards for the AN or BN spectrum EDs provided by the American Psychiatric Association,[13] the National Institute of Clinical Excellence,[14] the Australian and New Zealand Clinical Practice for Anorexia Nervosa,[15] and the Academy for Eating Disorders' Medical Care Standards Task Force Guidelines.[16] Our previous paper provides a more detailed description of the program and the specific contents of training.[9]

Procedure

Semi-structured interviews were conducted with professionals ($n = 43$) at 10 front-line community sites who participated in the KE program and where ongoing supervision was occurring at the time of the interviews. Sites were located in urban or suburban areas in and around the city of Montreal, and in other regions of the province of Quebec. Interviews were also conducted with 11 managers from sites where the project succeeded (i.e., where ongoing supervision and partnerships were established in the long-term, $n = 8$; referred to as active sites) and where it did not take hold (i.e., where trainings were given but then supervisions did not occur thereafter, or began and then stopped, $n = 3$; referred to as inactive sites) (see Table 1 for list of sites). Of note is the imbalance in number of managers interviewed at active vs. inactive sites. Managers from 2 additional inactive sites did not return calls to participate.

Professionals were interviewed in focus groups either in person or through telehealth modalities to increase the efficiency in collecting the data. Managers were interviewed one-on-one, either in-person or by phone. The interviews were semi-structured, led by a trained research assistant and audio recorded. The data were then transcribed verbatim by a research assistant and an interpretive content analysis approach was applied to identify patterns that best represented the participants' perspectives.[17,18] Thematic trees were then created based on common themes derived from the transcripts. Interviews were conducted in French or English, depending on the preferred language of the interviewee(s). Quotes from professionals or managers that were stated in French were translated into English, using the reverse translation method, for the current paper.

Information on professional demographics (e.g. age, profession) had been previously obtained when the individual began participating in supervisory sessions after completing the ED-KE training. Demographics on managers were asked at the time of the interview.

Interview protocol

Two different interview protocols were designed for the purpose of this study, one for the semi-structured interviews with the managers and a second for the focus groups with the professionals. The focus group interviews with professionals lasted approximately 18 min, and the manager interviews lasted approximately 13 min. Interview protocols for both the focus groups and the interviews with managers started with a description of the ED-KE programs and the goals of the present study. To ensure a shared understanding between participants of the meaning of barriers and facilitators, examples of types of factors that could have an impact on the implementation of the program were given (e.g., individual, social, or organizational). Then, 4 open-ended questions (see Appendices 1 and 2) were asked to encourage participants to engage in an open thought process about their perceptions of what impacted the implementation of the ED-KE program. For both the manager's interviews and the focus-groups with professionals, the authors make a distinction between the factors that had an impact on the implementation of the trainings compared to those that had an impact on the ongoing supervision (for sites where supervision took place).

Table 1

List of sites and number of therapists or managers from each site who participated

Name of site	Active or inactive site	Number of therapists	Manager interviewed (yes/no) and number of managers interviewed
St. Jerome	Active	4	No
John Abbott	Active	5	Yes — 1
Laval	Active	3	Yes — 1
Fosters	Active	2	No
West Island	Active	7	Yes — 1
Pierre Boucher	Active	6	Yes — 1
Dorval-Lachine-Lasalle	Active	4	Yes — 2
Nord de Lanaudiere	Active	2	Yes — 1
Nord de L'Ile	Active	9	No
Verdun	Active	2	Yes — 1
Lac St-Jean	Inactive	Focus group not conducted	Yes — 1
Cavendish	Inactive	Focus group not conducted	Yes — 1
Richelieu-Yamaska	Inactive	Focus group not conducted	Yes — 1

Epistemology

The qualitative methodology used in the current study is inspired by a constructivist approach where the truth is relative and constructed by the individual depending on his experiences and environment.[19] Hence, to achieve a richer and more reflective perspective on the barriers and facilitators of the ED-KE program, the authors used an iterative data collection and analysis approach to document the different perspectives of professionals and managers, at sites where the project succeeded and others from sites where it did not succeed.

Data analysis

A content analysis method adapted from Paillé and Muchelli [17] was used for analyzing the perceptions of participants. This type of analysis involves the identification, coding, and categorization of data into categories or themes.[18] It was designed to create a representative summary of the professionals' and managers' perspectives of the barriers and facilitators of ED-KE.[17,18] The three main investigators of the study performed the content analysis. The thematic analysis data reduction procedure was performed for each dataset sequentially.

First, after reading the interview transcripts a few times to obtain a general overview of the professional and manager views on ED-KE, the main ideas of each discourse were highlighted. Second, excerpts containing the information pertaining to the research questions were identified. Third, the data was organized into themes carrying similar ideas classified under the same category. The categories were then organized into a hierarchical structure using a thematic tree.[17] The thematic tree was a synthesized and structured representation of the analyzed content. The thematic tree was developed with the support of "CMap" software. A total of four thematic trees were generated by the primary researcher: professionals' views of facilitators, managers' views of facilitators, professionals' views of barriers, and managers' views of barriers. A qualitative criterion of redundancy occurs when no new datasets reveal additional information and when

newly analyzed data can be assigned to an already existing category.[18] Although sample size was pre-determined due to the possible sites and managers that could be interviewed, thematic saturation was observed in participants' discourse, where no new patterns or themes emerged in the data, suggesting satisfactory results and sample size for observing their perceptions on the barriers and facilitators of ED-KE. To ensure internal reliability of the analysis, all the data derived from content analysis conducted by one of the main investigators were independently coded by the other 2 investigators to ensure inter-coder agreement. Some interviews and focus groups were conducted in French. Data was kept in the original language during analysis and was translated into English when reaching the stage of organizing data into themes.

The authors have no conflicts of interest to declare and all the authors certify responsibility for the manuscript.

Results

Participants

Participants included 43 professionals from 10 sites and 11 managers (8 from active sites, 3 from inactive sites) where the ED-KE project was implemented (see Table 1 for list of sites). Of the professionals, 3 were men, and the remaining were women, while 3 managers (2 from active and 1 from inactive sites) were men. Mean age for managers was 46.4 years and mean age of professionals was 44.1 years. Professionals' affiliations included psychologist ($n=22$, 55.0%), counselor/psychotherapist ($n=5$, 12.5%), social worker ($n=6$, 15.0%), nurse ($n=2$; 5.0%), occupational therapist ($n=2$, 5.0%), psychoeducator ($n=2$, 5.0%), and one dietician (2.5%) (note: data missing for 3 participants). All professionals were involved in providing eating disorder–focused therapeutic interventions for patients.

Facilitators

Participants' discourses identified numerous factors that facilitated the implementation of the program. The factors were clustered into 4 major themes: ED-KE program enhanced knowledge and confidence, ED-KE program personalized and accessible, management support, access to patients, professional interest.

ED-KE program enhanced knowledge and confidence (9 sites, 6 active managers, 2 inactive managers)

Professionals at seven sites mentioned that the trainings helped equip them to evaluate and treat EDs and therefore offer better services to clients. They also mentioned that the materials provided in the context of the training were valuable resources. Managers from 5 different sites also said that through the ED-KE trainings, their professionals felt supported in treating individuals with EDs and were better equipped to do so. Professionals and managers stated that the ongoing supervision offered was of high quality. As one manager said "The ongoing supervision helps because some of us I think wouldn't explore, wouldn't take on patients if we didn't know we would have a little bit of a safety net." (manager 2080). Professionals from 4 sites mentioned that they felt they were offering more tailored care to this population, and professionals from another site also said that the program made it possible for them to then train other members of their team on how to better assess and treat EDs. It was also mentioned that the program helped prevent clinician burnout when treating a difficult patient population such as EDs.

Trainings and supervisions also increased professionals' confidence in working with an ED population. Mentioned by 4 sites and 3 managers, the participants stated that the initial trainings helped demystify treatment of EDs and that the ongoing supervisions helped them feel more comfortable

with treating this population. More specifically, some professionals mentioned that the presence of the supervisor made them feel supported, which made them feel more confident in treating difficult ED cases. As one professional said "For us, to have that space (supervision)…(we have) a little more confidence in terms of these clients" (site 2). Similarly, managers noted a decrease in resistance towards working with EDs after the implementation of the project. They also reported that the trainings helped increase professionals' sense of competence in evaluating and treating EDs and that this in turn translated to better care and larger improvements in outcomes for the patients.

Professionals and managers (6 sites; 1 active and 2 inactive managers) also appreciated having frequent supervisions that allowed them to keep the knowledge they learned accessible. Professionals also mentioned that the frequency of supervisions helped them enhance their knowledge and skills in treating patients. Finally, professionals and managers expressed that the flexibility in the scheduling of supervisions helped them meet on an ongoing basis.

ED-KE program personalized and accessible (8 sites, 5 active managers, 2 inactive managers)

The way in which the ED-KE program was organized emerged as a major facilitator according to professionals and managers.

Professionals at 6 sites, as well as 5 active and 1 inactive managers, all mentioned how the personalization of the ED-KE program facilitated its implementation. Respondents found that the accessibility to the ED team outside of regular training and supervision schedules helped them feel supported with their ED patients. A professional stated "They (supervisors) were available to us by email in between supervision if I had questions" (site 5). Managers also liked that the program was personalized to their site and felt as though the support offered was adapted to their needs. As one manager mentioned: "I think having such a great support customization towards us, um, it was really, really appreciated by therapists. And because of that, the therapists felt, I would say, maybe a little less alone with those cases." (manager 2080). One active manager also reported that the possibility for professionals to observe therapy groups at the EDC helped demystify fears around treating this population and helped professionals put in practice the material learned during trainings.

Participants (3 sites and 4 active managers) mentioned that having a partnership with the specialized ED service allowed for better facilitation of referrals between them which in turn benefitted patients in receiving care more quickly and having continuity in their care. Professionals and managers appreciated the fluidity between services when a patient needed to be referred to higher levels of care at the specialized service. One active manager further specified that this partnership with the specialized ED service contributed to a decrease in professionals' resistance to work with patients with EDs.

Management support (7 sites, 6 active managers, and 1 inactive manager).

Openness of managers was a major facilitator, in that management buy-in to the program facilitated professionals' ability to attend trainings and supervisions during work hours. This willingness of managers to participate in the program was mentioned by most professionals and managers Professionals said that the managers at their site would encourage them to participate in the project because it was seen as an added value. Others reported that trainings and supervisions were accessible because their managers liberated time for it. One professional stated "what makes (our site) work so well is that, like they´re saying, that the managers are on board….which makes such a difference I find, so it makes it so that we can meet as often as we need or, yeah it really helps when the managers are behind"(site 9). Furthermore, cooperation between all management levels within

their organizations, between managers and professionals and between institutions, facilitated the implementation and success of the project.

Access to ED patients (3 sites)

Professionals from 3 sites said that having access to ED patients to treat after they underwent the trainings and were engaged in supervisions facilitated them being able to put their knowledge into practice. A professional stated that "We have a population that is relevant. We surely see them presenting with eating disorder behavior, so, it makes, it follows that we would need the training and that it would be beneficial in terms of our approach" (site 15). Some participants explained that when possible, the prioritization of ED patients at their site was a factor that helped have this ongoing access to cases.

Professional interest (7 sites, 2 active managers)

Professionals and managers reported that having a professional interest in treating EDs facilitated the implementation and continuity of the project. As stated by one professional: "I think that also, for me anyway, there is also a personal interest in maintaining the continuing education on eating disorders, which makes it really interesting to have this opportunity in my work environment."(site 2). Similarly, having a team of professionals who were interested in treating EDs (2 sites and 1 manager) facilitated the project and enhanced professional motivation to treat EDs.

Barriers

Participants' discourses identified factors that impeded the implementation of the program that are grouped into 6 major themes: lack of ED patients to treat, structural and logistical issues at site being trained, lack of management support, complexity in treating ED patients, organization of the ED-KE project, evaluation component of the project.

Lack of ED patients to treat (6 sites, 4 active managers, and 2 inactive managers)

Lacking patients with EDs to treat at their settings due to management not prioritizing ED cases within their institution or not having sufficient references to allow all trained and supervised professionals to follow at least one patient was often mentioned as a barrier. As one professional puts it: "I had very few cases of eating disorders, so I was not able to practice a lot, apply the learnings in relation to eating disorders." (site 1). One manager said: "We did have trouble getting clients. That was…a big factor. I think clients were very used to going directly to the Douglas and being referred directly there. So, people did not know to refer to us. So because of that history of not being able to serve that clientele, we actually had difficulty having enough clients." (manager 2082).

Structural and logistical issues at site being trained (1 site, 3 active and 3 inactive managers)

Problems related to employee retention, structural reorganization, and technology were cited as barriers. Numerous individuals stated that employee turnover made either implementing or continuing the project tricky, due to trained professionals leaving and new professionals not having had the trainings or not having interest in treating EDs, creating a dearth of professionals available to treat patients with EDs. As one manager said: "Well,…it's really.. uh.. the staff turnovers and we had..

uh, we had absences, replacements, people who were not trained between now and the beginning. It's difficult in that context to maintain continuity.'" (manager 2090).

In 2015, the overall health care system in Quebec, Canada, experienced a restructuring, which caused changes in management structure of the various organizations as well as turnover of employees. Managers from 1 active and 2 inactive sites expressed that the aforementioned changes made either the implementation or continuation of the project tricky as allocated budgets and coordination between levels within the system also changed. As one manager described, the restructuring created changes in budgets at their site: "…then the reform and everything…there are budget changes that have been made…basically, the managers met with me to tell me that there was no more money for eating disorders, that it wasn't a priority, and that they couldn't fund the other professionals in the clinic for, um, eating disorders. Uh, so basically, they couldn't support…uh, the service offer" (manager 2091).

In addition, four sites and 1 active and 1 inactive manager mentioned that they encountered logistical and technological issues such as not having the material necessary to do videoconferencing for supervisions, encountering technical problems that arose during the videoconferencing sessions, and not having scales available to weigh patients. Some professionals also mentioned logistical issues such as difficulties in finding rooms to host supervision sessions and professionals being spread out across various sites within a given network.

Lack of management support (2 sites)

A barrier mentioned by 2 sites was lack of openness from managers, such that often, if managers were not interested in allocating time and resources to the project, the project could not succeed. As one professional said: "For our part, our manager favors that, but I have colleagues who have stopped coming because there was another manager who prevents them from accessing all trainings, not only the ones about eating disorders, they tell me"(site 3).

Complexity in treating ED patients (7 sites, 4 active managers, 1 inactive manager)

Professionals at 6 sites, as well as 2 active and 1 inactive manager, said that when patients sought out therapy for problems other than an ED, it rendered it more difficult for professionals to assess and detect EDs, and these patients did not necessarily want to work on their EDs. As one professional mentioned: "Often they come in with an anxiety disorder, depression, a personality disorder on the side, an eating disorder…Often, out of the 15 meetings, they will get a few dedicated to eating disorders and many others to everything else. So for me it's a hindrance in the sense that yes, I know there is an eating disorder, but sometimes there's something more urgent" (site 2).

Professionals at 2 sites and 2 active managers also reported how a short-term model of treatment (e.g., 10–15 sessions) typically employed at their sites was not always adequate to treat an ED. One manager added that best practices for eating disorders were sometimes difficult to implement in their settings. Furthermore, participants stated that they sometimes had difficulties managing patients with more severe ED symptoms who needed more intensive services. As one clinician said "Sometimes, we have some clients who may need more intense care, at a more intensive level and they don't want to travel (i.e. seek treatment with the specialized service)" (site 10). Furthermore, professionals sometimes worried about the medical aspect of treating these patients, especially if their site did not have nurses or nutritionists on staff to consult with.

While only mentioned by 1 active manager, worth noting and related to the points above was resistance of professionals at this site to taking on ED cases. The manager stated that there was also resistance among their experienced professionals to participate in supervision, and that they were reluctant to discuss difficult cases in supervision.

Organization of the ED-KE project (5 sites, 5 active managers, 1 inactive manager)

The way that the ED-KE project was organized acted as both a facilitator and as a barrier. Numerous professionals and managers (3 sites, 1 active and 1 inactive manager) mentioned that they did not always know in advance when trainings would occur, and they specified that re-training professionals regularly would have been helpful. Some said that training a broader range of health professionals such as medical doctors or other professionals who work in frontline services and who typically are the ones referring ED cases to more specialized services would have been beneficial. Managers said that while the trainings were helpful overall, it would have been beneficial to also help their teams figure out how to develop a program to treat EDs at their own sites. As one manager described: "But the actual program and/or therapy program that we would offer, we had to develop that, as well at the same time. And, that took a bit of doing as well…. we did some work in that and sorta put some guidelines together in terms of what, let's say, in roughly 12 sessions, following a CBT model might look at." (manager 2082). It was also mentioned that ongoing supervisions could have been better adapted by taking into account the professional context which was not the same as those of clinicians at the specialized ED service.

Evaluation component of the project (3 sites, 1 active manager)

The ED-KE project contained an evaluation component in which patients treated by trained professionals at the various sites were asked to complete outcome questionnaires. Some (3 sites, 1 active manager) cited this factor as a barrier in that professionals did not always have the time to have their patients complete the outcome questionnaires at the start and end of treatment, and some felt as though the evaluation/research component of the project was not always well-explained to professionals. As one professional said, in regard to the evaluation/research component not being very clear to them: "I think we're just also not doing research with [clients], so I think it sounds very foreign. Like to even explain it to them, so I think like it's not something we typically do" (site 15).

Discussion

The aim of the present study was to identify barriers and facilitators to the implementation and uptake of a knowledge exchange (KE) program whose goal was to train non-specialized clinicians to treat EDs in their community settings. The authors interviewed clinicians and managers at various trained sites in order to identify specific factors that either enabled or impeded the project.

At both sites where the project did and did not succeed, key facilitators mentioned were the quality of the trainings that imparted knowledge to the trained clinicians and ongoing supervision that allowed clinicians to feel supported and help advance their skills. Focused training on EDs has been shown to be of high importance to delivering quality care, as seen in a study using qualitative methodology where both patients and professionals surveyed indicated a need for more professional training in order to better detect, assess, and treat EDs.[20] A focus on evidence-based methods for assessment and treatment of EDs in training programs enhances mental health professionals' knowledge and level of comfort to treat EDs.[21] Moreover, previous studies have identified the need and desire for ongoing supervision as crucial to maintain fidelity to models taught in training and to enhance professional competence in treating EDs in children, adolescents, and adults.[11,22] The current study adds to these findings as participants revealed how the KE project not only equipped professionals but also helped increase their confidence in treating patients with EDs, which in turn made them more receptive to taking on more challenging cases while decreasing their resistance towards EDs.

Many factors related to the delivery of the project (personalization, scheduling, and partnership with the specialized service) were noted as having greatly facilitated its implementation. These findings seem to demonstrate that showing flexibility and partnership with trained sites can maximize chances of the uptake of the project.

Another main facilitator mentioned by numerous interviewees was having management buy-in and openness to the project. Previous research on clinicians' attitudes of health-related KE programs found that management buy-in, secured through the collaboration between administrators and researchers, is the most important determinant of whether the implementation of a program is successful.[10,11,23,24] Similarly, Couturier et al.[11] mentioned that the uptake of knowledge on FBT required administrators to allocate time for professionals to attend training activities.

Finally, having clinicians with an interest in treating EDs was also shown to facilitate the continuity of the project. In a study by Ellen and colleagues [23] on the implementation of evidence-based treatments in mental healthcare, a personal interest and motivation for training programs incorporating ongoing networking opportunities facilitated the uptake of knowledge at the frontline. Relatedly, a survey of multidisciplinary professionals in Norway showed that 80% expressed a wish to further develop their competence by attending more courses on eating disorders.[22] This openness or desire for further training, which may stem from personal interest, can also facilitate participation in training which can lead to increased confidence in treating EDs; conversely, low comfort with treating EDs due to lack of skills acts as a barrier to treating EDs.[25]

Main barriers identified included factors related to the organizational structure including managers not being interested in allocating time and resources to the project (as noted by professionals). On the flip-side managers said that the re-organization of the healthcare system in Quebec a few years before the interviews were conducted hindered the fluidity of the project at some sites. For some managers, their ability to release staff to attend ongoing supervision was challenging. Limited time available for primary-care clinicians to attend training activities has been highlighted as a major problem to the application of knowledge in primary-care settings.[23]

Managers and professionals cited lack of patients with EDs to treat as another important obstacle. Surprisingly, despite the high demand for services at the specialized ED clinic, the findings of the current study suggest that there is a lack of individuals presenting at frontline healthcare centers.[26,27] Potential explanations for clinicians' limited access to patients included administrators' failure to prioritize ED clients on the waitlist, failure of the initial assessment (most often conducted by clinicians not trained within the current project) to adequately identify ED cases, and that patients were habitually referred to the specialized service rather than to community care centers. The lack of referrals could also be attributed to lack of advertisements informing the public of the availability of services for EDs in community settings. A study on the barriers to implementing evidence-based practices in community-based addiction treatment organizations found that the lack of referrals from the community limited the transfer of knowledge to primary-care practitioners.[28] Lack of ED cases did not permit clinicians to apply and integrate the knowledge they learned. In a study conducted in Alberta to increase the scalability of treatments for depression, practice opportunities were essential for the uptake of knowledge in clinical settings.[8] Such opportunities have been identified as crucial to professionals' perceived competence in treatment provision in the health domain.[8] As such, in the current study, professionals also stated that they sometimes felt as though they lacked expertise to treat EDs even after the trainings.

Professionals and managers also cited that complexity in treating ED patients acted as a barrier to the successful implementation of the project. As patients often presented with multiple problems (e.g., depression, anxiety, personality disorders) and were not always ready or willing to work specifically on their ED, clinicians found treating this population challenging due to not always knowing how to conduct integrated treatment for EDs and comorbid disorders, nor feeling able to know when to prioritize treating the ED over other comorbidities due to time limits of therapy.

Furthermore, they felt as though time limits placed on therapy by their settings did not allow for adequate time to fully treat the ED. Managers noted that some of their clinicians showed resistance to treating EDs and that they sometimes did not feel competent enough to treat EDs despite the training and supervision, which can relate back to also having a dearth of patients to follow.

It was interesting to note that managers at sites where the project did not succeed mentioned the same facilitators and barriers as their colleagues at settings where the program was successful. Although managers seemed proactive in implementing the project, the reality of the mental health system (lack of resources or permission to allow staff to attend trainings, limited practice opportunities, and difficulty treating clients with comorbidities) impacted the extent of knowledge application of the program presented. Despite the barriers that were highlighted in this study, our results demonstrate that a ED-KE project can act to bridge high-quality continuing professional development opportunities and a greater accessibility to quality care for people with EDs. However, to further increase the capacity of the healthcare system, there is a need to target the context-specific barriers impeding the uptake and impact of the ED-KE. For example, to overcome the barrier of employee turnover leading to a reduced number of clinicians who can treat EDs at that site, the trainer model can be used wherein expert training is provided to a single therapist, who then trains other therapists at his/her center and acts as an internal coach and champion [29]. The identification and tackling of such barriers will help bridge the research practice gap for EDs.

Limitations

One main limitation of the study is that interviews conducted were on convenience samples, such that only professionals who were actively engaged in the supervisions at the time and who chose to attend the focus groups were interviewed (although of note, very few professionals were absent from each site, with some sites having all professionals present). Furthermore, only managers who returned calls were included in the sample, and those who did not may have presented slightly differing viewpoints on the project. Furthermore, there was a small sample of managers from sites where the project did not succeed, compared to many more voices emanating from sites where the project did take hold. The sample of managers from inactive sites may have been slightly biased, due to 2 managers from additional inactive sites not returning calls to participate. However, interview participants included a wide range of professionals (e.g., psychologists, psychotherapists, social workers, occupational therapists, nurses) responsible for primary care of patients with EDs. Moreover, up to six professionals were interviewed at each site, increasing our confidence in the present data. The sample also provided two different viewpoints on the program (professionals' views and managers' views).

Implications for Behavioral Health

Training of non-specialized clinicians to treat EDs is a valuable and effective way to help more individuals with EDs access treatment in their communities. Results from the present study enhance the current body of literature on factors impacting successful implementation of KE programs in the health and mental health fields and is the first to specifically identify barriers and facilitators in the uptake of a program to train mental health clinicians to assess and treat EDs using various evidence-based approaches. The current findings highlight that when implementing an ED-KE program, it is important to have training that meets of the needs of the targeted clinicians, and that ongoing supervision after training is extremely important. Assessing the organizational realities of sites where training will occur is crucial to ensure that the models of treatment being taught fit into the parameters of site, as well as ensuring the availability of ED patients for professionals to treat in order to enhance and

maintain their competence. As identified in the present study, coordination between various types of treatment centers (i.e., specialized services vs. front-line general services) to ensure that patients access treatment as easily and as close to home as possible is another important aspect of a KE program that needs to be addressed. Additionally, management buy-in and a logistical framework that supports the project are all crucial for successful uptake of an ED-KE program.

Of particular current relevance, prior to the Covid-19 pandemic, some supervisions and trainings were conducted remotely, via telehealth applications. The current study and previous report on data from the current ED-KE program [9] show that conducting trainings and supervisions via telehealth platforms can be a viable option for training programs during pandemics and when distance does not permit face-to-face encounters.

Declarations

Conflict of Interest The authors declare no competing interests.

Appendix 1

Interview script for focus groups conducted with professionals.

Preamble.

As you are aware, in an effort to help our health-care network build capacity to meet the huge population demand for ED treatment, in recent years, the EDC has provided formal knowledge exchange training sessions, aimed at building needed expertise in 1st- and 2nd-line health resources (CLSCs, general hospitals, community clinics, etc.). The goals of the KE project are to build an evidence-based network of care for people with EDs, so that people with EDs from all over Quebec will be able to benefit from prompt, well-informed assessment and care in their own communities. The KE trainings typically have the following format: (1) Day-long workshop open to all interested clinicians in the CSSS region, (2) follow up intensive sessions ($2 \times 1/2$ day) with clinicians targeted for development of greater expertise, (3) ongoing supervisory sessions with EDC experts, offered via live meetings (if nearby geographically) or via tele-santé video or telephone.

A main part of this project has been the ongoing evaluation of the effectiveness of the project, through assessment of trained clinician's perceived ability to treat patients with EDs and through evaluation of patient response to treatment received in the sector. Data that we have obtained thus far show that the trainings increase therapist confidence and perceived ability to treat patients with EDs, and patients show significant improvements in ED symptoms over the course of treatment.

The next step in our research is to identify factors, at various levels, which either contributed to, or hindered, the implementation of the project. By factors, we mean any individual (e.g., interest in treating EDs, work schedule), social (e.g. personal values) or organizational (e.g. time constraints, referrals with ED, funding) variables that could have had an impact on the implementation of the project and your participation in the project.

We are interested in obtaining your impressions of factors that may have acted as either barriers or facilitators to the implementation and to your participation in the project at your site.

Questions.

1. As a therapist at a site that we have trained (and where there is ongoing supervision), can you tell us what factors (at any level of organization) you believe made it possible for you, or your team, to participate in the KE trainings?
2. Can you tell us about what factors made it difficult for you or your team to participate in the KE trainings?
3. Now can you tell us what factors (at any level of organization) you believe made it possible for you, or your team, to participate in the supervision sessions?
4. What factors made it difficult for you or your team to participate in the supervision sessions?

Appendix 2

Script for interviews conducted with managers.

Preamble.

As you are aware, in an effort to help our health-care network build capacity to meet the huge population demand for ED treatment, in recent years, the EDC has provided formal knowledge exchange training sessions, aimed at building needed expertise in 1st- and 2nd-line health resources (CLSCs, general hospitals, community clinics, etc.). The goals of the KE project are to build an evidence-based network of care for people with EDs, so that people with EDs from all over Quebec will be able to benefit from prompt, well-informed assessment and care in their own communities. The KE trainings typically have the following format: (1) day-long workshop open to all interested clinicians in the CSSS region, (2) follow up intensive sessions ($2 \times 1/2$ day) with clinicians targeted for development of greater expertise, (3) ongoing supervisory relationship with EDC experts, offered via live meetings (if nearby geographically) or via tele-santé video or telephone.

As a main part of this project has been the ongoing evaluation of the effectiveness of the project — through assessment of trained clinician's perceived ability to treat patients with EDs and through evaluation of patient response to treatment received in the sector. Data that we have obtained thus far show that the trainings increase therapist confidence and perceived ability to treat patients with EDs, and patients show significant improvements in ED symptoms over the course of treatment.

The next step in our research is to identify factors, at various levels, which either contributed to, or hindered, the implementation of the project. By factors, we mean any individual (e.g., interest in treating EDs, work schedule), social (e.g., personal values), or organizational (e.g., time constraints, referrals with ED, funding) variables that could have had an impact on the implementation of the project.

We are interested in obtaining your impressions of factors that may have acted as either barriers or facilitators to the implementation of the KE project at your site.

Questions.

1. As a manager in a site that we have trained (and where there is ongoing supervision), can you tell us what factors (at any level of organization) you believe made it possible for you, or your team, to implement the KE trainings?
2. Can you tell us about what factors made it difficult for you or your team to implement the KE trainings?
3. Now can you tell us what factors (at any level of organization) you believe made it possible for you, or your team, to implement the supervision sessions, and to ensure that therapists have patients with EDs to treat?

If trainings took place but no supervision, skip to question 4:

4. What factors made it difficult for you or your team to implement the supervision sessions and to ensure that therapists have patients with EDs to treat?

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