

# Barriers and Facilitators to Implementing a Stepped Care Cognitive-behavioral Therapy for Insomnia in Cancer Patients: a Qualitative Study.

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## Research Article

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# Abstract

**Purpose:** Insomnia affects 30-60% of cancer patients and tends to become chronic when left untreated. While cognitive-behavioral therapy for insomnia (CBT-I) is the recommended first-line treatment, this intervention is not readily accessible. This qualitative study investigated current practices in the assessment and management of insomnia in five hospitals offering cancer care and identified the barriers and facilitators to the implementation of a stepped care CBT-I (i.e., web-based CBT-I followed, if needed, by 1-3 booster sessions) in these settings.

**Methods:** Nine focus groups composed of a total of 43 clinicians (e.g., physicians, nurses, technologists, psychologists), six administrators, and 10 cancer patients were held. The Consolidated Framework for Implementing Research (CFIR) was used to develop the semi-structured interview and analyze the data.

**Results:** Sleep difficulties are not systematically discussed in clinical practice and when a treatment is offered, most often, it is a pharmacological one. Barriers and facilitators to the implementation of a stepped care CBT-I included individual characteristics (e.g., lack of knowledge about CBT-I); intervention characteristics (e.g., increased accessibility offered by a web-based format); inner setting characteristics (e.g., resistance to change); and process factors (e.g., motivation to offer a new service).

**Conclusions:** This qualitative study confirms the need to better address insomnia in routine cancer care and suggests that, while some barriers were mentioned, the implementation of a stepped care CBT-I is feasible. Keys to a successful implementation include accessibility, training, inclusion of stakeholders in the process, and ensuring that they are supported throughout the implementation.

## Introduction

Between 30% and 60% of cancer patients report insomnia at some point during their cancer care trajectory [1]. Insomnia tends to become chronic when not adequately treated, which is the rule rather than the exception [1]. Untreated insomnia may lead to several negative consequences (e.g., development of depressive disorders) and costs related to chronic insomnia for the patient and society [2] largely outweigh those of an effective treatment for this problem [3]. Cognitive-behavioral therapy for insomnia (CBT-I) is the treatment of choice for chronic insomnia [4, 5] and has been recommended as the first line treatment for cancer-related insomnia [6]. In fact, CBT-I has been found to be efficacious in cancer patients when administered in a standard face-to-face format [7–9]. However, given the time required to administer it, the associated costs, and the lack of qualified practitioners, access to CBT-I is very limited in oncology clinics [10–12].

Stepped care models have long been proposed as a cost-effective way to make CBT-I more widely accessible [14–15]. Typically, stepped care models of care begin with a low intensity treatment (e.g., self-administered), which is followed, if the patient is not remitted, by a more intensive form of intervention. Stepped care treatments are less demanding in terms of professional resources and are, therefore, less costly, which makes their implementation in routine care more likely [14, 16]. We conducted the first

randomized controlled trial (RCT) comparing the efficacy of a stepped care CBT-I to that of a standard professionally-administered CBT-I (6 face-to-face sessions) [13]. Stepped care patients who had less severe insomnia first received a web-based intervention followed, if they were still symptomatic, by up to three face-to-face sessions with a clinician. The trial used a non-inferiority design and was conducted in patients with mixed cancer sites ( $N=177$ ). Results showed that stepped care CBT-I was significantly non-inferior to standard CBT-I (6 face-to-face sessions) in reducing insomnia severity and improving sleep efficiency.

Although stepped care CBT-I appears to be an efficacious alternative to standard CBT-I, it is now important to assess how feasible its implementation is in routine cancer care. The first step consists of identifying barriers and facilitators to implementation among the various stakeholders [17]. This qualitative study aims at characterizing the current practices in the assessment and management of cancer-related insomnia and at identifying the main factors that could facilitate or hinder the implementation of a stepped-care CBT-I. We used the Consolidated Framework for Implementing Research (CFIR) [18] which considers a broad range of factors at the innovation, individual, contextual and process levels, and which proposes a pragmatic approach to make changes in complex environments such as healthcare organizations.

## Methods

### Setting and Participants

The study was conducted in five hospitals (L'Hôtel-Dieu de Québec [LHDQ], Hôpital du St-Sacrement [HSS], Hôpital de l'Enfant-Jésus [HEJ], all part of the CHU de Québec-Université Laval, Hôtel-Dieu de Lévis [HDL], and Institut universitaire de cardiologie et de pneumologie [IUCPQ]) providing cancer care in the Quebec City metropolitan area (Quebec, Canada). The sample comprised clinicians (nurses, psychologists, social workers, pharmacists, physicians, and technologist) and hospital administrators ( $n=49$ ) who were identified by participating clinics' coordinators of psychosocial oncology services, as well as patients who received cancer treatment and experienced sleep difficulties ( $n=10$ ).

Inclusion criteria for patients were: to have antecedents or current insomnia, to have a sufficient health literacy, to be able to communicate in French and to attend the focus group in person. Exclusion criteria were metastatic cancer and severe cognitive impairment or psychological disorder.

### Procedure

Potential participants were approached by email or phone. The consent form and a socio-demographic questionnaire were sent by email, which had to be completed before the focus group. A professional facilitator conducted the focus groups (duration from 65 to 90 minutes). Before the discussion began, a brief introduction of cancer-related insomnia (e.g., prevalence) and CBT-I was presented and our stepped care CBT-I was described; i.e., web-based CBT-I ([www.insomnet.com](http://www.insomnet.com)) followed if needed by up to three booster sessions with a clinician. Two distinct semi-structured interviews were used for hospital

employees and patients (see Table 1). The interview guides with a set of predetermined questions were developed based on the CFIR and a systematic review of staff-reported barriers and facilitators to the implementation of hospital-based, patient-focused interventions [19].

## Data analysis

Focus groups were audio-recorded and transcribed verbatim. Verbatim transcriptions were imported in NVivo 11.0 [20], and a hybrid inductive-deductive thematic analysis was performed [21]. The first two focus groups conducted with employees were analyzed independently by two raters (MPG and one research professional) with significant experience in qualitative analyses who compared their coding and came to consensus on a common codification tree. Then, a discussion with JS and CF led to the addition of a few codes to the codification tree. The seven remaining focus groups were analyzed by the same research professional and then validated by MPG, JS and CF.

## Results

### Composition of Focus Groups and Participants' Demographic Characteristics

A total of 43 clinicians (nurse navigators [ $n=10$ ], nurses [ $n=8$ ], psychologists [ $n=10$ ], social workers [ $n=6$ ], pharmacists [ $n=2$ ], physicians [ $n=4$ ], and radiation oncology technologists [ $n=3$ ]) and 6 hospital administrators<sup>1</sup> participated in one of the seven focus groups conducted with hospital employees (L'HDQ,  $n=13$ ; HSS,  $n=9$ ; HEJ,  $n=7$ ; HDL,  $n=12$ ; IUCPQ,  $n=9$ ). Professionals of L'HDQ were separated into two groups. Additionally, 10 patients who received cancer treatments and experienced sleep difficulties participated in two focus groups. Among these, eight patients had received the stepped care CBT-I as part of our previous RCT (they had agreed to be contacted for another study) [13] and two did not.

Most clinicians and administrators were women ( $n=45$ ; 91.8%), were married or cohabitating ( $n=36$ ; 73.5%) and had completed a university degree ( $n=22$ ; 44.9%). They were on average 41 years old (range: 28-61). Patients were on average 60 years old (range: 47-74) and a majority was female ( $n=9$ ; 90%), was married or cohabitating ( $n=4$ ; 40%) and had completed a university degree ( $n=7$ ; 70%). The cancer sites were breast ( $n=6$ ; 60%), prostate ( $n=1$ ; 10%), gynecological ( $n=1$ ; 10%), central nervous system ( $n=1$ ; 10%), and salivary gland ( $n=1$ ; 10%).

### Current Practices in the Assessment and Treatment of Cancer-Related Insomnia

**Discussions about sleep.** Patients were unanimous in saying that cancer care providers did not enquire about the quality of their sleep. Yet, this is a significant problem: *"I'd never heard that there could be a link between cancer and insomnia."* (Patient).

Patients also stated that sleep should be assessed and discussed right after the cancer diagnosis: "There should be a follow-up right away because the worst time is between the diagnosis and the first

treatments. At the beginning, right after the diagnosis. At least make them [patients] aware that it can occur, that they might have trouble sleeping” (Patient).

**Assessment of sleep problems by cancer care providers.** When sleep problems are reported by their patients, first-line providers try to assess the possible reasons for these difficulties and to recommend basic sleep hygiene strategies: “Personally, I do a quick assessment to find out: is it recent? Has it gotten worse since the illness was diagnosed? Do they know about relaxation techniques? What do they do when it occurs? Do they take medication? Then [I teach] relaxation techniques and all of that” (Social Worker). “What I do at the beginning is I try to see why they have insomnia. So, at the beginning I try giving the good old advice, take naps in the afternoon but not too long, stay away from caffeine, chocolate in the evening, exercise, yes they can rest but that doesn’t just mean staying in bed” (Nurse).

**Current management of sleep difficulties.** Both patients and hospital professionals mentioned that when an insomnia treatment is initiated, it is most frequently of a pharmacological nature. Hypnotics are seen as more appropriate in some acute situations (e.g., when receiving dexamethasone, absence of comorbidity) and the risks of a chronic usage (e.g., dependence) are well recognized.

*The nurses work hard and they’re kind, but there comes a time, after they’ve done two shifts when they say: “you’re not sleeping, we’ll give you a little pill”. It’s quicker and more effective (Patient).*

*I prescribe them Ativan. I know there are other things we could do, but we don’t have enough time, ok, I honestly admit it, I go with the easy solution (Hematologist-oncologist).*

*Of course, when I have a patient in front of me who is having trouble sleeping and is on dexamethasone, I’ll often call their doctor to get a prescription for something that will help them sleep because that’s where the problem is (Pharmacist).*

*My initial reaction would be to say that unfortunately patients stay too long on their medication...then, well, they get used to it, they’ll have trouble stopping and that’s not because they don’t want to (Administrator).*

## **Mapping of Barriers and Facilitators using the CFIR Framework**

Barriers and facilitators to implementing a stepped care CBT-I in cancer clinics were grouped into larger domains based on the CFIR model: 1) characteristics of individuals; 2) intervention characteristics, 3) inner setting; and 4) process [16], <https://cfirguide.org>; see Table 2 for quotes).

### *Characteristics of Individuals*

**Lack of knowledge about CBT-I.** CBT-I was identified as not well known by cancer care providers in general which could be a barrier for its implementation.

**Motivation.** Some cancer care providers discussed the high degree of motivation participants would need to complete and adhere to a stepped care CBT-I beginning with an Internet-based (entirely self-

administered) CBT-I. The intervention requires significant lifestyle changes (possible barrier).

**Preferences.** The importance of taking patients' preferences into account was also mentioned as an important factor by the health care providers. For instance, patients who want a rapid solution to their problem would probably be better off if offered a pharmacological intervention.

**Comorbidity.** Participants, particularly psychologists, stated that it might be a challenge, while offering the stepped care CBT-I, to take into account the common comorbidity of insomnia with other psychological disorders and pain.

### *Intervention Characteristics*

**Short and long-term beneficial effects and impact on quality of life.** Participants, especially patients and psychologists, emphasized the greater efficacy of CBT-I over pharmacotherapy and the long-term effects of CBT-I and its overall beneficial effect on quality of life.

**Accessibility.** On one hand, the lack of Internet knowledge and access was reported as a critical barrier for a stepped care CBT-I whose first step is a web-based intervention. This barrier is likely to affect the involvement of patients living in remote areas, older people, and those with a low literacy (including health literacy) and lower socioeconomic status. This should be considered when thinking about referring the patient to the program.

On the other hand, the proposed intervention was perceived as highly accessible in the sense that it is simple to use and easy to understand, while being less costly for the organization (facilitator). Moreover, the possibility to complete the treatment program at home, at a time and pace convenient for the patients, was identified as one of the clear advantages of the web-based CBT-I. Also, some patients who already have several medical appointments may refuse a psychological intervention because of transportations issues and some may have less energy to engage in a face-to-face intervention.

### *Inner Setting*

**Time and resources.** On one hand, the lack of time and resources, both human and material, emerged as a major possible barrier to implementation. Stakeholders expressed their concern that the implementation of CBT-I in their clinical setting would increase the overload that they were already experiencing. Increased costs for hospitals were also mentioned.

On the other hand, several stakeholders mentioned that the program may promote patients' autonomy, could reduce the strain on resources and would fit well into routine care (facilitator). Some also said that, while initially it might be perceived as contributing to their overload, the stepped care CBT-I could reduce it, at least for some providers, by better managing an unmet need.

**Resistance to change.** Resistance to change among cancer care providers was identified as an important potential barrier. Resistance to change was seen as inevitable but surmountable.

## *Process*

**Training.** Cancer care providers mentioned that providing a brief training to all types of clinicians eventually involved would be a facilitator to the implementation of stepped care CBT-I. Ideally, cancer care providers should have the opportunity to become familiar with the website, the treatment content and the informational documents that will be distributed to patients beforehand.

**Engaging.** To be successful the implementation should also engage and rely on every professional working in oncology.

**Motivation and commitment.** Most health care providers interviewed expressed a strong desire to commit themselves to the implementation process and to propose the program to their patients.

**Publicity.** Participants also mentioned that, for the program to be sustainable, the implementation team should generate a lot of publicity, not only at the beginning, but throughout the whole implementation process.

<sup>1</sup>One administrator was working in two hospitals, hence she took part to two focus groups.

## **Discussion**

The goal of this qualitative study was to collect the information needed to best prepare the implementation of a stepped care CBT-I in routine cancer care. Overall, both hospital employees and patients emphasized the need for better screening and treating cancer-related insomnia. They also unanimously expressed positive comments about CBT-I and the proposed stepped care CBT-I. They identified a few barriers and facilitators to its implementation and the general conclusion was that it was feasible provided certain conditions are met.

About the assessment and management of sleep difficulties, study participants agreed that the current practice was suboptimal. Some clinicians stated that they try to assess sleep more thoroughly when patients report having difficulties sleeping (e.g., frequency of difficulties). However, patients are rarely offered CBT-I because of a lack of knowledge of this therapeutic option by most cancer care providers or because psychologists are overbooked<sup>2</sup>. Also, they tend not to refer patients to psychologists when the only complaint is insomnia. At best, pharmacotherapy and sleep hygiene practices are recommended. Yet, their limitations, especially those of hypnotic medications, were acknowledged (e.g., side effects, lack of sustained effect over time). Accordingly, CBT-I was identified both by clinicians and patients as being the treatment of choice because of its long-term effects and beneficial impact on overall quality of life. Interestingly, patients verbalized that they had not been informed about the possibility that they might develop sleep difficulties during their cancer care trajectory, nor was the presence of such symptoms assessed by any type of first-line cancer care providers. They also mentioned that insomnia and the program should be discussed with patients as early as possible in the cancer care trajectory. These

findings are in line with previous studies conducted in cancer patients with sleep difficulties and clinicians [10, 22].

A few possible individual barriers for the implementation of the stepped care CBT-I were identified. Participants mentioned that several health care professionals are not aware about CBT-I being the treatment of choice and that information about its nature and efficacy should be provided first. When questioned about the relevance of the stepped care approach involving a web-based intervention as the first step, some hospital employees and patients wondered if all patients would have the necessary motivation to complete this treatment on their own. They also emphasized the importance of considering patients' preferences regarding treatment modality. Some participants, especially psychologists, said that the presence of comorbidity (e.g., depressive or anxiety disorder) could make referral to the program less relevant. Hence, it will be critical to develop clear algorithms to help health professionals decide who to refer to the stepped care CBT-I program.

The web-based format of the first treatment step was perceived both as a possible barrier and facilitator. Indeed, barriers related to the intervention included limited access to the Internet for some patients (e.g., living in rural areas with no high-speed connection, no computer or other electronic device at home, lack of computer skills), as well as older age and lower socio-economic status and literacy. Such barriers to Internet-based interventions were also found in other populations [23, 24], which tend to decrease over time given the continued increasing rates of people having access to the Internet and owning a smart phone, a tablet or a computer [25]. On the other hand, many advantages of a web-based treatment were also recognized both by hospital professionals and patients, including its lower cost and greater accessibility, as well as the possibility of completing it at home, without involving additional visits to the clinic, at a time convenient for the patient. Taken together, these findings suggest that it will be crucial to provide both technical and clinical support to better accompany patients completing the web-based CBT-I.

As expected, the lack of time and human resources were the external (inner setting) barriers that were the most prominently emphasized by administrators, clinicians and even patients. Cancer clinics are already overloaded and the concern was that the program would add to clinicians' burden. Although the first step of the program is entirely self-administered, it still needs to be at least minimally explained when recommended to patients by the health professional. Psychologists working in oncology are also overburdened and the possibility was discussed that there were not enough of them to offer the booster sessions to patients who were still symptomatic after the completion of the web-based phase. Conversely, it was mentioned that the stepped care CBT-I could reduce the workload of many types of providers (e.g., oncologists and pharmacists who prescribe hypnotic medications) and could reduce the overall burden on the staff. This would be achieved by providing a new service for an unmet need and for a problem that may manifest otherwise or develop into a more severe problem (e.g., depressive disorder) thus prompting extra phone calls and consultations. As in other implementation studies [19, 26, 27], resistance to change was identified as a possible barrier. Although seen as inevitable, it was also perceived as a temporary issue until everyone understands the advantages of implementing this program in their service. Altogether, the analysis of external barriers reveals that it is crucial to provide information

to all stakeholders on the possible consequences of chronic insomnia when left untreated and to track early in the process the impact of the implementation of stepped care CBT-I on available resources. Based on our previous RCT [13], it is expected that most patients eligible to receive booster sessions will need only one to go into a remission but this needs to be confirmed in the real-world.

Finally, regarding the implementation process modalities, participants expressed the need to offer a prior training to all categories of providers involved in implementation, at a level adjusted to their role. While an extensive training on CBT-I will be required for psychologists offering booster sessions, a much briefer and basic training will be needed for referring providers focusing on how the web-based intervention works and on the content of the intervention to be able to “sell it” to their patients. They also emphasized the need to continuously publicize the program all over the hospital both among patients and health professionals.

This study had many strengths. First, focus groups were composed of all relevant stakeholders involved in cancer care for each study site. Also, discussions were led by an independent facilitator from a survey firm, which reduces the possibility of a social desirability bias. In addition, the qualitative analysis was conducted by an experienced rater, who was also independent of our research team, thus reducing the potential for experimenter bias. The study also has some limitations as well. Because of recruitment difficulties, the patients’ subgroup was predominantly composed of individuals who had received the stepped care CBT-I as part of our previous study [13]. While these patients were in the best position to give comments on the intervention and its effects, they were also more likely to be biased positively. Also, participants were in the vast majority women, thus restricting the generalization of findings.

<sup>2</sup> Since 2012, psychotherapy is an act that is reserved to psychologists and other health care professionals having a permit to practice psychotherapy (e.g., primary care physician) in the province of Quebec. CBT-I is a form of psychotherapy according to the definition used by the *Office des professions du Québec* (“A psychological treatment for a mental disorder, behavioral disturbance or other problem resulting in psychological suffering or distress, and whose purpose is to foster significant changes in the client’s cognitive, emotional or behavioral functioning, his interpersonal relations, his personality or his health”).

## Conclusion

This qualitative study, which is the first phase of a broader implementation study, provides the necessary insights to prepare the implementation of stepped care CBT-I in cancer clinics. The study also made it possible to engage the main stakeholders who will be involved in this process, thus maximizing its success. Cancer-related insomnia too often remains undetected and undertreated in routine care. CBT-I is recognized as the treatment of choice for insomnia and a successful implementation of a stepped care approach to offer this intervention will contribute to reducing the individual and social burden of cancer-related insomnia and to increasing patients’ overall quality of life.

# Declarations

## Funding

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## Conflicts of interest/Competing interests

Josée Savard reports the following conflict of interest: Astellas (consultant). Charles Morin reports the following conflicts of interests: Advisory boards: Eisai, Merck, Sunovion, Pear Therapeutics, Weight Watchers; Research Grant: Idorsia, Canopy Health. The other authors report no conflicts of interest.

## Ethics approval

This study was approved by the ethics' committee of each participating institution (CHU de Québec-Université Laval: # MP-20-2020-4796; CISSS de Chaudière-Appalaches (Hôtel-Dieu de Lévis): # MEO-20-2020-711; Institut universitaire en cardiologie et pneumologique de Québec: #MEO-20-2021-3408).

## Consent to participate

All participants signed a consent form.

## Consent for publication

Not applicable.

## Data availability

Not applicable.

## Code availability

Not applicable.

## Authors' contribution

JS: conceptualization, formal analysis, funding acquisition, investigation, methodology, project administration, resources, supervision, writing; CF: formal analysis, investigation, project administration, writing; MPG: conceptualization, formal analysis, funding acquisition, investigation, methodology, supervision, writing; ACG: conceptualization, funding acquisition, methodology, resources; LB: conceptualization, funding acquisition, methodology, writing; CMM: conceptualization, funding acquisition, methodology, writing. All authors read and approved the final manuscript.

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## Tables

Table 1  
Semi-structured interview for hospital employees and patients.

Topic	Questions
<b>Hospital employees</b>	
Sleep problems (current situation)	<p>How do you think sleep difficulties are being addressed in your department/institution?</p> <p>What kind of intervention do you think would be most appropriate/effective in reducing sleep difficulties?</p>
Interest in CBT-I	<p>Do you think patients would be interested in CBT-I? Why?</p> <p>How easy do you think it would be to include the proposed stepped care CBT-I into routine care at your institution? Why?</p>
Implementation of CBT-I	<p>What kind of barriers in terms of <b>institution (system), individuals (patients and health care professionals), intervention</b> are there to implementing stepped care CBT-I? How do you think these barriers could be overcome?</p> <p>What factors specific to your institution would facilitate the process of implementing the intervention?</p>
Expectations and implementation process	<p>What would you expect from the research team during the implementation process?</p> <p>How do you concretely envisage the implementation of this stepped care intervention in your institution?</p> <p>When would be the best time during the care trajectory to offer patients help in reducing their sleep difficulties?</p>
<b>Patients</b>	
Sleep problems (current situation)	<p>How do you think sleep difficulties are being managed in cancer clinics? Is it a priority?</p> <p>When should cancer patients be offered help to reduce their sleep difficulties?</p>
Interest in CBT-I	<p>Do you think this program will be easy to put into practice in patients' daily lives? Why?</p> <p>If this program had been offered to you as standard care by a health professional, would you have agreed to take it? Why?</p>
Implementation of CBT-I	<p>What kind of barriers in terms of <b>institution (system), individuals (patients and health care professionals), intervention</b> are there to implementing stepped care CBT-I in cancer clinics? How do you think these barriers could be overcome?</p>

Table 2  
Themes, barriers and facilitators identified (quotes).

CFIR domain and constructs	Theme	Barriers and facilitators (Stakeholders and patients quote)
Characteristics of individuals	Lack of knowledge about CBT-I	<b>Barrier.</b> <i>I think it's not yet as well-known as one would like, psychotherapy for sleep works very well, in that regard there is still a lot of work to make people aware of it (Psychologist).</i>
	Motivation Preferences	<b>Barrier/facilitator.</b> <i>It will depend on the people, on how motivated they are...the intensity of their insomnia, I think, will also influence their motivation (Social Worker).</i>  <b>Barrier.</b> <i>Sure it's a bit harder to take the trouble of going on the Internet and doing the modules every week, for six weeks than to say I'm going to see a psychologist every week for six weeks. It takes more discipline (Nurse).</i>  <b>Barrier/facilitator.</b> <i>But you have to be ready to want to do that. You have to pick the right moment when you most feel like it (Patient).</i>
	Comorbidity	<b>Barrier.</b> <i>It's a very structured treatment. In real life insomnia or sleep disturbances don't just present by themselves...you need to be very flexible in terms of how you intervene (Psychologist).</i>
	Intervention characteristics	Short and long-term beneficial effects and impact on quality of life
<b>Facilitator.</b> <i>Psychological therapy is a lot better. Sure it's longer, but it lasts over time and the strategies remain (Patient).</i>		
<b>Facilitator.</b> <i>It's just as effective as medication ... medication might serve as a band aid, but as soon as you stop, the bad habits are still there, with therapy the changes are more sustainable over time (Psychologist).</i>		
<b>Facilitator.</b> <i>We know that sleep has an impact on the quality of life, mood, anxiety and a lot of things (Psychologist).</i>		

CFIR domain and constructs	Theme	Barriers and facilitators (Stakeholders and patients quote)
	Accessibility	<p><b>Barrier.</b> <i>You'll also need to target a certain clientele, because there are patients who aren't on the Internet or who are illiterate or who can't read, who don't know how computers work (Nurse).</i></p> <p><b>Barrier.</b> <i>I think there's a certain segment of our clientele who are quite elderly...they're likely to feel less comfortable or attracted by that (Social Worker).</i></p> <p><b>Facilitator.</b> <i>Personally, I found it very accessible. For anybody, it's simple and easy to understand (Patient).</i></p> <p><b>Facilitator.</b> <i>Access is easy, once it's up and running, it no longer costs anything (Social Worker).</i></p> <p><b>Facilitator.</b> <i>Even for somebody undergoing treatment, they can take it in small steps. They can watch it whenever they want, watch it again if they want (Patient).</i></p> <p><b>Facilitator.</b> <i>The advantage is that the patient won't have to go anywhere. Already there are some...who are very reluctant to travel, they already have a lot of appointments (Nurse Navigator).</i></p>

Inner setting	Time and resources	<p>Barrier: <i>Somehow staff will need enough time to do it, in other words, there should be enough resources</i> (Administrator).</p> <p>Barrier: <i>On the part of the nurses, when they talk to patients, they need to explain it, sell it, but that takes time</i> (Technologist).</p> <p>Barrier: <i>As a psychologist who may end up with these patients, if we allow self-referrals, it'll be chaos</i> (Psychologist).</p> <p>Facilitator: <i>For us it might in some way reduce our workload because these people call us for these kinds of problems. The fact is it might already address the issue before it occurs</i> (Nurse Navigator).</p> <p>Facilitator: <i>Maybe we'll save time. Maybe there will be fewer demands on doctors, less strain on the pharmacy, maybe it will save time for other care providers</i> (Technologist).</p> <p>Facilitator: <i>Remember that there is still many who won't even need the booster sessions, the online modules will be enough for them</i> (Psychologist).</p>
	Resistance to change	<p><b>Barrier:</b> <i>Whenever you have people involved, whether it be a department or young people or middle aged people or the elderly, there will always be resistance, so you just have to deal with it</i> (Technologist).</p>
Process	Training	<p><b>Facilitator:</b> <i>It's about making adequate training as brief as possible, covering the most important points. Yeah, then the information should be shared with everybody</i> (Administrator).</p> <p><b>Facilitator:</b> <i>What's most important in terms of access is to make sure that the people who might be referring are really familiar with the platform</i> (Social Worker).</p> <p><b>Facilitator:</b> <i>I think it's a good tool, easy to use, if the nurses in the treatment room have been trained enough to know the contents so they can try to convince the patients to go there [on the website]</i> (Nurse).</p>
	Engaging	<p><b>Facilitator:</b> <i>In addition, it shouldn't just fall on the shoulders of two or three people but, but on everybody working in oncology</i> (Administrator).</p> <p><b>Facilitator:</b> <i>I think that for any kind of innovation, the people involved have to be participants in the process</i> (Psychologist).</p>
	Motivation and commitment	<p><b>Facilitator:</b> <i>My impression is that I would even prescribe it before medication, I wouldn't even do both at the same time, I would have them begin with it and then see how it interacts</i> (Technologist).</p> <p><b>Facilitator:</b> <i>Personally, I'm sure that if they explain it to us, how to try to sell it, I'm sure I would be onboard 100%</i> (Technologist).</p>
	Publicity	<p><b>Facilitator:</b> <i>I think that it will need a lot of, in quotation marks, publicity... we'll have to make sure everyone is on the same page</i> (Hematologist-oncologist).</p> <p><b>Facilitator:</b> <i>That goes for everything, whether it's community resources, our services, they'll publicize it all the time, all the time</i> (Social Worker).</p>