




# Cultivating Comfort: Examining Participant Satisfaction with Hypnotic Communication Training in Pain Management

Éloïse Cardinal <sup>1,2</sup>, Karine Bilodeau <sup>2,3</sup>, Julie Lebeau<sup>2,3</sup>, Maryse Aubin<sup>2</sup>, Joséphine Guiné<sup>2</sup>, Odile Dutey-Harispé<sup>2</sup>, Julie Delage<sup>1,2</sup>, Rémi Caron-trahan<sup>1,2</sup>, Jade Véronneau<sup>2</sup>, Mathieu Landry<sup>1,2</sup>, David Ogez <sup>2,4</sup>

<sup>1</sup>Department of Psychology, Faculty of Arts and Sciences, University of Montreal, Montreal, Quebec, Canada; <sup>2</sup>Centre de recherche de l'Hôpital Maisonneuve-Rosemont, Montreal, Quebec, Canada; <sup>3</sup>Faculty of Nursing Sciences, University of Montreal, Montreal, Quebec, Canada; <sup>4</sup>Department of Anesthesiology and Pain Medicine, Faculty of Medicine, University of Montreal, Montreal, Quebec, Canada

Correspondence: David Ogez, Tel +1 (514) 252-3400 X 4443, Email david.ogez@umontreal.ca

**Context:** One in four Canadians experiences chronic pain, yet insufficient services and restrictions surrounding prevailing treatments result in inadequate management and significant negative consequences for these individuals. Previous work indicates that hypnotic communication represents a promising complementary treatment; however, training protocols for healthcare professionals are underdeveloped and understudied.

**Aim:** To evaluate the level of satisfaction for a training program on hypnotic communication in pain management clinics.

**Design:** Qualitative study.

**Methods:** Six health professionals who first completed the hypnotic communication training participated in 30 minutes virtual semi-structured interviews. These testimonials allowed them to elaborate on their user experience and potential areas for improvement. Thematic analysis using qualitative data management software NVIVO was conducted on the interview data.

**Results:** Two themes emerged from the interviews. 1) Satisfaction: Participants expressed satisfaction on various structural aspects of the training, including the provided materials, atmosphere, training structure, presentation modalities, practical workshops, acquired knowledge, trainer quality, and training duration. 2) Areas for Improvement: Five main improvement suggestions were identified (providing more material; more practical workshops, more concrete and adapted; testimonials from former patients; follow-up training meeting; and continuing education).

**Implications for the Profession and/or Patient Care and Conclusion:** The results improved the training program to help minimized inherent biases related to this technique, cut associated costs, and identify reasons that would explain its underutilization among medical professionals in Quebec. Our work highlights that healthcare professionals in chronic pain management clinics (eg, respiratory therapists, nurses) can incorporate this simple hypnotic communication technique into their usual care and contribute to the well-being of patients.

**Impact:** This study aimed to address the lack of training protocols for healthcare professionals, that are underdeveloped and understudied. The main findings on participant satisfaction and the areas of improvement for the training will help the refinement of the training to better suit healthcare professional's needs in hospitals and chronic pain facilities.

**Keywords:** chronic pain, non-pharmacological treatment, hypnosis, communication, training, qualitative research, satisfaction

## Introduction and Background Chronic Pain

Chronic pain (CP) is a complex issue affecting over 8 million Canadians, impacting people of all ages, from infants to seniors.<sup>1</sup> In Canada, CP affects one in four individuals during their lifetime,<sup>1</sup> including prevalence is even higher among one in three for individuals aged 65 and older.<sup>2</sup> These figures are particularly concerning considering the aging global demographic, as the

proportion of the Canadian population suffering from pain is likely to increase in the coming years.<sup>3</sup> Currently, CP imposes a direct and indirect cost to the state (eg, healthcare expenses, productivity costs) of approximately 55 billion Canadian dollars per year.<sup>4</sup> Identifying effective solutions for pain management has therefore become a vital objective for government officials.

Pain perception is typically subdivided into three major categories according to different biological mechanisms. Nociceptive pain arises from damage to body tissues and can result from injury, illness, or an inflammatory process, neuropathic pain originates from direct damage to the nervous system, and nociplastic pain corresponds to changes in the functioning of the nociceptive nervous system rather than damage.<sup>3,5</sup> In addition to biological mechanisms, pain is also interpreted based on its duration. Here, acute pain involves nociceptive and neuropathic mechanisms often resolving with the healing of damages.<sup>3</sup> The cause of acute pain is usually identifiable and the pain is brief. If poorly managed, acute pain can alter the nociceptive nervous system, leading to pain chronicization.<sup>6</sup> In turns, CP is defined as acute pain that persists for more than three months.<sup>7</sup> Mechanisms underlying CP include nociceptive and neuropathic processes, as well as nociplastic changes due to the reorganization of the nociceptive system.<sup>3</sup> CP has recently been recognized as an official disease by the World Health Organization in their latest international classification of diseases, validating the experiences of millions of people worldwide suffering from CP.<sup>8</sup>

CP impacts on individuals and their surroundings in several way, including reduced quality of life, life expectancy, mental health, social support, productivity, and increased risks of suicide, stress, fatigue, school absenteeism.<sup>3</sup> These consequences are even more significant for marginalized or stigmatized individuals such as those living in poverty, women, Indigenous peoples, and certain ethnic populations.<sup>9,10</sup>

Despite the significant personal and societal costs associated with CP, as well as decreased quality of life, there is a glaring lack of services surrounding its treatment. In Canada, approximately 50% of people with CP face a minimum six-month wait time to be seen in pain management clinics, which can extend to four years in some cases, allowing ample time for pain chronicization.<sup>11</sup> This waiting period increases the level of anxiety and stress for individuals living and may even reduce therapeutic success.<sup>12</sup> The combination of all limiting factors related to wait time, lack of services, decreased living conditions underscores the need to develop CP management protocols to significantly improve patients' quality of life.<sup>12</sup>

## Chronic Pain Treatment

Pharmacological treatment remains the most commonly therapeutic approach for CP, with opioids being the preferred analgesic in over 80% of cases.<sup>11,13</sup> This treatment cannot be initiated without a predefined treatment plan and opioid prescriptions may be renewed as long as the patient reports persistent pain.<sup>14</sup> Hence, many individuals unintentionally find themselves in prolonged opioid therapy, facing potential side effects such as dependence, misuse, abuse, and even death.<sup>3</sup> Moreover, pharmacological treatments as the sole approach is only partly effective.<sup>3,15</sup> Plus, other medical procedures used in pain management clinics (eg, nerve blocks, infiltrations, epidurals) are invasive and may generate increased anxiety and pain in patients.<sup>16,17</sup>

In this context, complementary non-pharmacological interventions are becoming increasingly important component for CP management (eg, mindfulness relaxation, physical activity in pain management, music therapy).<sup>18</sup> These interventions aim to provide rapid care and enhance patients' self-management of pain, while also reducing opioid consumption. Their application is flexible and encompass potentially painful medical procedures.<sup>19</sup> Among potential non-pharmaceutical methods, a large body of research underscores the efficacy of medical hypnosis in reducing pain and procedural distress.<sup>20–22</sup> In this regard, a recent meta-analysis underscores the strong benefits of hypnotic suggestions for analgesia in the context of acute pain.<sup>23</sup> These benefits extend to clinical and chronic pain.<sup>24,25</sup> Evidence further shows that hypnosis can also reduce anxiety levels, recovery time, intervention time, and medication intake in the context of medical procedure.<sup>21</sup> Hypnosis is proven to be equality effective as intravenous narcotic sedation during surgeries. Consistent with this body of work, our group recently demonstrated the potential of a self-hypnosis intervention for managing chronic pain (HYlaDO) as an alternative to opioid treatments by reporting a significant reduction in pain in the short term, as well as a decrease in anxiety and an increase in relaxation.<sup>22</sup> In sum, clinical hypnosis represents an efficient non-pharmaceutical method for managing patients' overall well-being, while also decreasing intervention and recovery times, while also potentially reducing the costs associated with analgesic substances.

## Hypnotic Communication

Hypnotic communication (HC) represents a clinical approach involving language and other communication strategies geared towards heightened suggestibility in patients. This approach rests on several linguistic elements derived from clinical hypnosis, such as reframing, metaphor, suggestion, and verbal repetition. Unlike medical hypnosis, however, HC does not require formal induction or hypnotic trance.<sup>26</sup> Studies using HC reveal promising results in reducing pain and procedural distress.<sup>19,27</sup> In the context of CP, one of the key strategies of hypnotic communication aims to redirect the patient's attention towards relaxing and soothing mental images rather than the source of stress, pain, or unpleasant thoughts and feelings. This technique necessitates cultivating a collaborative partnership between the patient and healthcare provider, aimed at creating a personalized mental environment tailored to the patient's preferences, thereby enhancing their experience during the procedure and/or surgery and making it as comfortable as possible.<sup>28</sup> This technique is therefore suitable for medical procedures, while also retaining the benefits of hypnosis in CP treatment.<sup>29–31</sup>

Despite the potential benefits of using this approach in health care, few clinicians and centers in the province of Quebec (Canada) use it. Various challenges hinder its widespread adoption, including negative biases concerning the perceived duration and effectiveness of non-pharmaceutical practices, despite evidence to the contrary.<sup>21,32</sup>

Using HC is not straightforward. Most studies using it in the context of a medical procedure involve health professionals trained in hypnosis, in addition to the medical staff trained to accomplish the procedure, which add to the complexity and associated costs of the operation.<sup>19,33–38</sup> In this way, there is a pressing need to create training programs tailored to healthcare professionals so they can use this simple technique while providing their usual care. However, few protocols currently are available for this type of learning, even less specialized for specific medical personnel in CP management clinics (eg, respiratory therapists, nurses).

## HYlaDO: Training of the Healthcare Team in Hypnotic Communication

HYlaDO is a novel self-hypnosis approach for chronic pain management program (Hypnose de la Douleur, hypnosis of Pain in French). We have included in this program a HC training for a population of respiratory therapists and nurses in pain management clinics for adult patients, based on a previous version designed for pediatric context.<sup>29</sup> This training rests on a standardized techniques outlined in a practice manual and has been accredited by the professional orders of nurses and respiratory therapists in the province of Quebec (Canada). The main goal of the training is to teach simple HC techniques that can be integrated in daily clinical practices. This technique minimizes procedural pain and distress associated with invasive medical procedures performed in pain management clinics. The training comprises two distinct modules to be covered on two days of healthcare staff training. The first one concerns relational aspects and the second one focuses on specific hypnoanalgesia techniques (see [Table 1](#) for the content of the two days training).

## Aims of the Study

The objective of this paper is twofold. First, we aim to evaluate the satisfaction of healthcare professionals on HYlaDO's training given in pain management clinics. Second, we wanted to identify areas for improvement in the training.

## Methods

### Design

The present study rests on a qualitative experimental Design, an approach well established in nursing research,<sup>39</sup> and focused on obtaining subjective data that would capture the experience of participants. Informed written consent was obtained for participation in the training, and verbal consent was sought verbally during the qualitative interviews. Participants have also consented to their direct quotes being published anonymously. The project and the verbal informed consent process were approved by Maisonneuve-Rosemont Hospital institutional research ethics board in Montreal (# 2022–2667).

**Table I** Description of the HYlaDO Training Content

| Day 1: Relational Aspects   | Day 2: Specific Hypnoanalgesia Techniques  |
|---|--|
| <b>Verbal components of communication:</b> <ul style="list-style-type: none"><li>• Eg, de-identified words to differentiate the patient from their illness in their self-definition, simple words adapted to the patient, and positive words bringing emotional and physical benefits to the patient;</li><li>• A technique called <i>Reframing</i>: to reframe the patient's language to reduce the cognitive components of their pain and change the meaning of the unpleasant sensation.</li></ul> | <b>The Pleasant Place technique:</b> <ul style="list-style-type: none"><li>• Allows the patient, through attention distraction, to let their mind wander to a comfortable and serene place. It allows them to reduce their focus on the medical room and the care they are receiving.</li><li>• When using this technique, the healthcare providers help the patient to recall the physical characteristics of a place associated with happy memories or a place they want to visit;</li><li>• The healthcare providers learn to invite the patient to explore this pleasant place using their five senses, using the VAKOG acronym (ie visual, auditory, kinesthetic, olfactory, and gustatory), to enhance their experience.</li></ul> |
| <b>Non-verbal components of communication:</b> <ul style="list-style-type: none"><li>• Eg, emphasis on words, pauses, silences, body contact;</li><li>• A technique called <i>Synchronization</i>, that includes two distinct sequences: pacing, in which the practitioner synchronizes with the other, and leading, in which they take the lead with suggestions</li></ul>   | <b>A targeted hypnotic analgesia technique</b> <ul style="list-style-type: none"><li>• Involves direct suggestions of dissociation and analgesia on the body part to be treated;</li><li>• Based on glove analgesia techniques widely used in pediatrics and already taught in other hypnotic communication training programs.<sup>26,31</sup></li></ul>   |

Recruitment and Inclusion/ Exclusion Criteria

Participants of the HYlaDO’s training in April 2022 were invited by Email to partake in this follow-up study. Participants were required to be legal adult (> 18 y.o). French-speaking, and having completed the two days HC training. No exclusion criteria were used. Participants received a monetary compensation and professional credits from their respective professional orders.

Data Collection

Semi-structured interviews were conducted in French with HYlaDO training’s participants in Fall 2022. The interviews were moderated by the principal investigator (É.C), a female PhD student in neuropsychology. At the time of the interviews, É.C. had approximately three years of research experience, including two years of pertinent interview and qualitative research experiences. The interview guide was adapted to the current training based on existing appreciation questionnaires for simulation-based training in nursing.<sup>40–42</sup> It included six open-ended questions intended to avoid influencing participants’ responses that assessed the following components of the training: 1- objectives, 2- content of the training, 3- facilitator, 4- teaching Methods, 5- organization, 6- suggestions. Specifically, the questions were:

How did you perceive hypnosis before the training? What is your opinion on the two-day training? What changes have occurred in your perception of hypnosis? Have you integrated hypnosis into your practice? What suggestions do you have for improving training in your work environment? Is there anything else you would like to add regarding the training?. [free translation from French]

Interviews lasted approximately 30 minutes and were conducted on Zoom. Only audio recordings of the sessions were retained on the researcher’s One Drive for the purpose of verbatim transcription. Post-interviews, participants were asked four sociodemographic questions (ie their age, gender, professions and years of experience).

Data Analysis

Interview were transcribed using One Drive Word transcription software and then verified by one of the researchers from this study. Content analysis of the verbatims was used to enable a broad assessment of satisfaction with the training program among healthcare professionals, especially relevant in nursing research.<sup>39</sup> According to a thematic analysis approach,<sup>43</sup> significant narratives on each topic were used to illustrate participants’ opinions and experiences. Qualitative

analysis of the stories enabled us to identify the positive and negative aspects, as well as areas for improvement for the training. The analysis was carried out by two separate raters on Qualitative Data Analysis (QDA) Miner software, and a judge to identify emerging themes from the interviews. For synthesis purposes, only quotes that add to the understanding of themes and sub-themes will be translated and reported in the results. We used fictitious names to maintain the anonymity of the participants when presenting the results (see [Table 2](#)).

## Findings

### Characteristics of Participants

Eight participants underwent the HC training program. Two participants (one student and one physician) could not be reached to participate in this study. The final sample for this study included four registered healthcare (two respiratory therapists, two nurses) and two students (psychology program), of which one was a rehabilitation counselor ( $n = 6$ ). There were four women and two men. Additional characteristics of this sample are detailed in [Table 2](#).

### Thematic Analysis

The thematic analysis conducted on the interviews revealed two main themes revolving around participants' satisfaction with the HYlaDO training. These are as follows: 1) Training Evaluation, and 2) Areas for Improvement in Training (see [Figure 1](#)).

### Theme 1. Training Evaluation

Participants provided their feedback on the two-day training, expressing their opinions on various key aspects of the training: the provided materials, the atmosphere, the training structure, presentation methods, practical workshops, their learning outcomes, and the duration of the training.

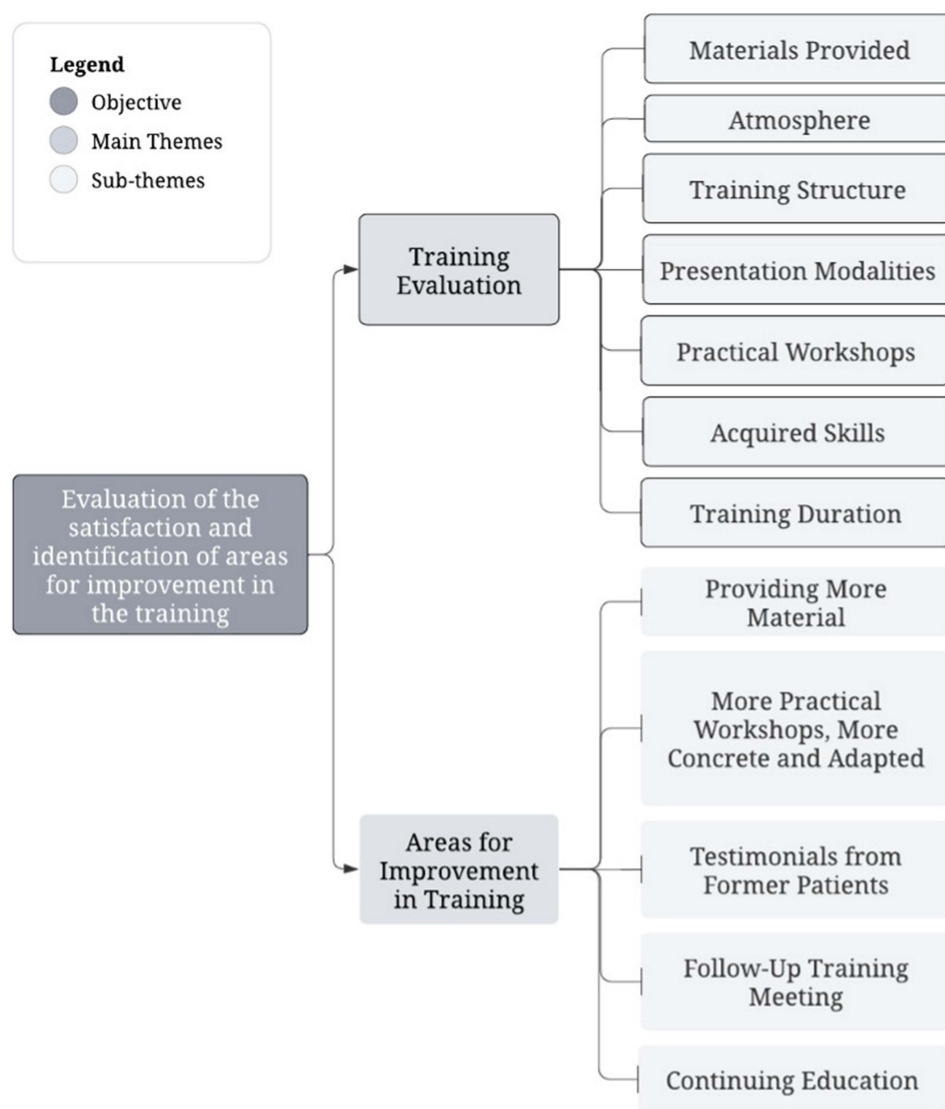
#### Materials Provided

During the training, each participant received a printed manual encompassing both theoretical aspect and practical exercises. This manual included an introduction to hypnotic communication, relational aspects of conversational hypnosis, and the development of two techniques: hypnoanalgesia and the pleasant place. Participants reported that the documentation was comprehensive, covering all training exercises and meeting their needs. All participants appreciated the hypnosis script for the pleasant place. They found it to be a beautiful, practical, appropriate, and detailed tool. It was even considered more useful than the of slides presented during the training due to its specificity. It helped in “understanding how to introduce [hypnosis], how to guide the person to where you want to take them, what kind of questions to bring, what to do with our hands, what we can do with our voice, the theme of the voice, and all that” (STD2, Student in Psychology and Rehabilitation Counselor). Most participants reported frequently using the script in their practice. The only one who claimed otherwise did not use this technique with her patients but instead relied on a breathing technique she was familiar with. “In the operating room, I could never do that. Impossible because time is limited” (RT2, Respiratory Therapist). Participants mentioned that the script provided ample freedom for imagination and creativity that would ultimately guide the patient towards the pleasant place. And yet, both nurses from our sample had diverging opinions on this aspect: CN1 found it challenging in practice to tap into participants creativity, whereas CN2

**Table 2** Characteristics of the Study Sample

| Participants* | Age (Year) | Gender | Profession   | Years of Practice** |
|---------------|------------|--------|--|---------------------|
| CN1           | 43         | Woman  | Clinical Nurse                                     | 22                  |
| CN2           | 33         | Woman  | Clinical Nurse                                     | 12                  |
| RT1           | 52         | Man    | Respiratory Therapist                              | 20+                 |
| RT2           | 45         | Woman  | Respiratory Therapist                              | 10                  |
| STD1          | 21         | Man    | Student in Psychology                              | 0                   |
| STD2          | 29         | Woman  | Student in Psychology and Rehabilitation Counselor | 5                   |

**Notes:** \*Code names. \*\*In their mentioned profession.



**Figure 1** Main Themes and Sub-Themes Derived from Interview Thematic Analysis.

appreciated the scope of this tool. Finally, it was mentioned in interviews that the tool, although helpful, merely guided the practice and that actual experience was the critical component of this technique: “And in the script, it does not do the work on its own” (STD1, Student in Psychology).

## Atmosphere

All participants had a positive opinion regarding the Atmosphere of the training. They described it as “perfect”, “pleasant”, “friendly”, “family-like”, “warm”, “very open”, and “less academic”. They mentioned various aspects contributing to this pleasant training atmosphere: the room configuration, the training location, comfort, the number of participants, and the characteristics of the participants.

Specific features of the room configuration enhanced the positive atmosphere of the training. The room’s small size, the proximity of participants, and the arrangement in a circle were highlighted. These elements facilitated the ability to see everyone and created a setting that was less formal and more engaging than that of a typical academic context. Additionally, various aspects of the furniture contributed to the overall sense of comfort during the training. Participants being comfortably seated on sofas, having access to small desks for practical exercises, and “beds on-site, ready to



welcome [them] if [they] were [in] hypnosis” (STD2, Student in Psychology and Rehabilitation Counselor) added to this warm ambiance.

Well, it’s true that being in a standard classroom with tables and chairs in rows. I [think] that it brings a somewhat too formal pedagogy for what it is, and in fact, [HYlaDO] tends more to be friendly and in a secure and comfortable environment. (CN1, Clinical Nurse)

The training location also contributed to this pleasant atmosphere. Participants appreciated the venue, emphasizing that “it was in a lounge. It was not really. in an auditorium or something like that” (STD1, Student in Psychology), and it was a room where this kind of therapeutic intervention could genuinely take place.

The number of participants in the training was also valued. Participants stated that the ideal number ranged between 10 and 12. A higher number of participants would result in too many different opinions, making the training much longer. The even number of participants was also highly appreciated as it allowed the formation of pairs for practical workshops.

Finally, participants addressed another aspect contributing to the pleasant atmosphere of the training—the diversity of backgrounds. Some mentioned the advantage that some knew each other before the training and may have already worked together, leading to “beautiful exchanges” (CN2, Clinical Nurse). They argued that this diversity of professions brought a wealth of opinions regarding hypnosis.

I found it super interesting to see that doctors, surgeons, nurses, and respiratory therapists were in the same place to understand the same thing regarding situations [in] each of these professions. Living daily, [...] they see different facets of the same diagnosis. I found it super enriching that they could bring a bit of their concern, [their] doubts regarding the functioning, raise why they think it could work, why not, [if they] would want to integrate it into their practice or why [not]. (STD2, Student in Psychology and Rehabilitation Counselor)

## Training Structure

Participants appreciated the structure of the training, describing it as “concise”, “well-organized”, and “concrete”. They particularly liked the alternation of theoretical presentations supported by studies and videos, followed by practical exercises and group feedback sessions. In their view, this approach facilitated learning the technique on a “step by step” basis, like solving a puzzle, allowing them the opportunity to learn from their mistakes and gradually moving towards more autonomy. One participant acknowledged that despite a substantial “theoretical block” on the first day of training, this aspect was necessary to “prepare them for practice” (STD1, Student in Psychology).

## Presentation Modalities

Participants reported that the visual support improved the quality of the training. They particularly appreciated the stories, personal experiences, and videos that were presented, emphasizing that they made the course “much more interactive than just reading a PowerPoint [...] captured people’s attention more, let us say”. (CN1, Clinical Nurse) and contributed to the understanding of the technique. However, one participant mentioned that she had retained much more from the practical aspects of the training than these presentations:

I mean, I did not go back to the slides, and honestly, I think I retained more of the practical aspects versus the content and history in the slides there. (STD2, Student in Psychology and Rehabilitation Counselor)

## Practical Workshops

The practical workshops and demonstrations derived from the training were the favorite part for some participants. This aspect was central in their motivation to use these techniques in their practice. Participants expressed a particular appreciation for applying what they had learned in theory, realizing that it was not as complicated as they initially thought. These workshops also allowed them to refine their voice intonation so that the techniques became more fluid. Participants considered the allocated time for practical workshops to be adequate. They felt they had the time to perform the exercises “correctly, without rushing” (CN2, Clinical Nurse) and to take the time to discuss them among themselves. They estimated this time to be approximately 15 to 20 minutes. According to one participant, it was essential for the

trainer to go around the groups to ensure that everyone had the opportunity to complete the practical exercise before moving on to the next part of the training (RT2, Respiratory Therapist). They also mentioned several observations made following the practical workshops.

According to some, having experienced these exercises was necessary to be able to practice and use hypnosis in their profession. It was necessary to “have been a bit of a guinea pig to really know what one is doing behind it as well” (CN1, Clinical Nurse), to have the conviction that it can work. Experimenting with these techniques on themselves convinced some participants of the relevance of hypnosis in a medical context.

Participants were positively surprised to see how well the techniques worked on some individuals. They also appreciated experiencing the spectrum of sensitivity and suggestibility regarding hypnosis. This led them to relativize the fact that some techniques work less well on certain people than others, thus avoiding internalizing others’ low suggestibility as a reflection of their skills in hypnotherapy. Moreover, with the trainer’s demonstrations, they realized that everyone, even the most skeptical, can to some extent benefit from these techniques in terms of relaxation and release.

Some may be better than others, feel more comfortable than others, but ultimately, we are all capable of helping, of doing it, of guiding someone at least to a level of self-defense versus entering a more hypnotic phenomenon, and it has benefits. (CN2, Clinical Nurse)

### Acquired Skills

Participants shared their feedback on the skills acquired from the training. They expressed finding the training “extremely informative” and expressed a desire to implement the learned techniques into their practice, describing them as very useful. One participant found it enriching to learn in which situations or contexts these practices apply and to realize that it is “not suitable for everyone” (STD2, Student in Psychology and Rehabilitation Counselor). Additionally, the training helped them understand the importance of practice, emphasizing that these techniques rely heavily on the unspoken and require experience: “[.] when we try to do it afterward, we see that it’s not as easy as just following a script” (STD1, Student in Psychology). They mentioned finding it a “wise choice to focus more on general techniques” (STD1, Student in Psychology) and to allow everyone the opportunity to refine their technique based on their experience and feedback from their patients.

### Training Duration

Participants appreciated that the training took place over a weekend, which made scheduling made it more accessible as healthcare professionals. However, it was mentioned that under perfect conditions, they would have the time to attend during workweeks, but that was not realistic given their workplace settings. Participants judged that the two days of training were suitable for the amount of information they had covered and sufficient to “open their eyes to hypnosis” (RT1, Respiratory Therapist). They preferred the two days to be consecutive and the training to be conducted in a condensed manner, rather than being spread across several weeks.

It was still quite intense, being there every day, but I prefer this way than if they had asked me to show up over several weeks, for example, every Saturday for three weeks, for instance. (STD2, Student in Psychology and Rehabilitation Counselor)

### Overall Training Feedback

All participants expressed their appreciation for the training. They found it to be a beautiful training in general, one that did not give them “the feeling of working” (CN2, Clinical Nurse). They appreciated all its elements. They described it as “interesting”, “well-balanced” between theory and practice, and “enriching”. If they had to do it over again, they would “copy and paste it” (CN2, Clinical Nurse). They felt that it opened doors to a new approach to possible treatment. Some who were initially skeptical about their ability to use this technique claimed to have been impressed by the way the training was delivered, restoring their confidence. One participant was even willing to “recommend it to quite a few people who [would be interested in getting] a better idea of what hypnosis is” (STD1, Student in Psychology).



## Theme 2. Areas for Improvement in Training

Participants have suggested various avenues for enhancing the HYlaDO training, which can be grouped into five main recommendations: 1) Providing More Material; 2) More Practical Workshops, More Concrete and Adapted; 3) Testimonials from Former Patients; 4) Follow-Up Training Meeting; and 5) Continuing Education (see Table 3 for a summary of participants' suggestions of improvements).

### Providing More Material

The first suggested improvement regarding the training process was related to the material they were provided with. Indeed, during the interviews, it was mentioned that more material in text format would have been appreciated. Participants expressed difficulties in relying on their imagination at times. "It's difficult, in fact, to have imagination when practicing hypnosis" (CN1, Clinical Nurse). They mentioned feeling lost and having the impression of repeating themselves during their hypnotherapy practice with patients. They highlighted the interest in having additional tools at their disposal in the format of concrete tips, phrases, or keywords to use and even avoid.

### More Practical Workshops, More Concrete and Adapted

A second suggestion focused on the practical workshops. Many participants wished for more practical exercises and opportunities to test the various techniques learned during the training. This would allow them to observe progress in their learning and increase their interest in the techniques for application in their practice.

I think we had enough, but I would have liked to have more, I would say. Because the more you test, the more you do things, the more you go 'Ah! Yes, it works! Oh, that one works better.' You know, there's this building interest, curiosity. (CN2, Clinical Nurse)

Participants also mentioned the interest in adding scenarios with greater ecological value and realism to the training. They reported learning techniques on calm participants and not in crisis situations, which some of their patients might experience. They found it beneficial for future training if healthcare professionals had the opportunity to be supervised during practical exercises with the type of patients they are accustomed to be working with.

I imagine it's not the same context for a person who is in good health and is like 'Yeah. Go ahead, try to make me imagine I'm on the beach' versus the person who is getting a needle [as part of their care], and who has to imagine themselves on the beach. It's really not the same reality. (STD1, Student in Psychology)

Finally, participants emphasized the importance of adapting practical exercises and techniques seen in training to the real-world medical environment. Given the central issue of time, some techniques could be shortened to make them more useful in their workplace, depending on the care the patient is receiving. For example, they would be interested in the

**Table 3** Summary of Areas of Improvement Suggested for the HYlaDO Training

| Suggestions of Improvement   | Content  |
|--|--|
| 1) Providing More Material;<br>2) More Practical Workshops, More Concrete and Adapted; | <ul style="list-style-type: none"> <li>• More tools (eg, concrete tips, texts, phrases, or keywords to use or avoid).</li> <li>• More practical exercises and opportunities to test the various techniques learned during the training;</li> <li>• Adding scenarios with greater ecological value and realism (eg, learning techniques in crisis situations);</li> <li>• Adapting practical exercises / techniques to the real-world medical environment (ie some techniques could be shortened to make them more useful in medical workplace).</li> </ul> |
| 3) Testimonials from Former Patients;  | <ul style="list-style-type: none"> <li>• Have testimonials from patients who had experienced these hypnosis techniques in the context of their care.</li> </ul>  |
| 4) Follow-Up Training Meeting;<br>5) Continuing Education.                             | <ul style="list-style-type: none"> <li>• Have a virtual follow-up meeting sometime after the training with all participants.</li> <li>• Offer an advanced training for those interested;</li> <li>• Develop a hypnosis service at the hospital.</li> </ul>   |

presentation of techniques designed for more comprehensive hypnosis techniques during medical exams versus breathing techniques for shorter treatments where patients are simply stressed or anxious.

[It should] emphasize [on] the methods [...] that have been proven to be the most effective, the easiest to use to get the patient into a trance, the fastest way and all, so that it's really practical, and participants can come back to work on Monday and try little things during their various interactions with patients. (STD1, Student in Psychology)

### Testimonials from Former Patients

A third suggested improvement was to have the presence of patients who had experienced these hypnosis techniques in the context of their care. It was proposed that having access to their experiences and feelings during the training could contribute to the exchanges between the healthcare provider and the patient during treatments, helping to understand their needs within the context. Hearing patients' perspectives could enrich the training of healthcare providers.

They are the ones we want to help first, so having this aspect [would allow] us not to be in an echo chamber, where we are all intervenors who want to help but may not have given a voice to the patients to know how they want to be helped. (STD1, Student in Psychology)

### Follow-Up Training Meeting

Another suggestion was to have a virtual follow-up meeting after the training with all participants. This meeting would provide an opportunity to discuss the challenges each person faced in integrating the techniques into their practice, including a conversation about the different approaches and their effectiveness relative to the different contexts encountered by the professionals.

[...] to know, has it really been used? Have there been good results, has it been sustainable? Even if everything hasn't been integrated, have some parts of it been? So it would have been good to have a little follow-up afterward regarding that. (STD2, Student in Psychology and Rehabilitation Counselor)

### Continuing Education

Finally, the last proposal was to offer advanced training for those interested. This additional training would serve as ongoing education, where short practical workshops would be conducted once or twice a month with willing patients. These workshops would be selected based on cases deemed relevant to deepen the learning of the staff at the CP management clinic. The suggested format was approximately 30 minutes at the end of workdays, and it was advised to involve professionals from different medical teams.

When there's an interesting case at the pain clinic, in partnership with all the other teams. We'll say 'Ah, this one, it's a good case for a practice workshop for the respiratory therapist, for the nurse, for the anesthetist, [...]' (RT1, Respiratory Therapist)

Following this additional training, it was also proposed to develop a hypnosis service at the hospital, similar to physiotherapy or occupational therapy services:

Then, we could practice it once a week. We would choose some patients to see how it works with them; it would be like a step towards the future. (RT1, Respiratory Therapist)

### Conclusion of Results

In summary, the thematic analysis of verbatims highlighted two main themes: participants' opinions on the training and their suggestions for improving it. By expressing their views on various aspects of the training (materials, atmosphere, structure, PowerPoint presentations, practical workshops, acquired knowledge, teaching, and duration of the training), participants indicated that they appreciated the HYlaDO training. Furthermore, they provided five key suggestions for improving the training, including offering more materials, incorporating more concrete practical workshops, testimonials from former patients, a follow-up meeting and a continuous education program.

## Discussion

This study examined participants' satisfaction regarding HYlaDO, a HC training program in the context of patients' care. Individual interviews allowed for the identification of concrete improvement areas to enhance the training and user experience. Thematic analysis of verbatims aligned along two interview themes: participants' opinions on the training and ways to improve the training. Our results underscore the positive outlook of participants relative to various aspects of our training program, along with five areas of improvement.

## Training Evaluation

Participant's feedback represents a critical aspect in the development of new non-pharmaceutical interventions.<sup>44</sup> Qualitative interviews demonstrated that participants were satisfied with the training and deemed it suitable for their practice environment. Participants positively commented on different structural aspects of the training (eg, materials provided, atmosphere, practical workshops, duration of training). They appreciated the materials, especially the hypnosis script, which they found useful and relevant. Many mentioned still using it on a daily basis. The assistance provided by the hypnosis script can be likened to script theory derived from cognitive psychology, which posits that cognition operates by storing and retrieving internalized structured sequence of events that ultimately guide behaviors in a given context.<sup>45</sup> These scripts are organized information in networks of concepts that allow individuals to interpret behaviors across different social scenarios and anticipate how events will likely progress.<sup>46</sup> In a medical context, refining these disease scripts would enable healthcare professionals to improve clinical reasoning, ie, better interpretations and appropriate actions in a given situation.<sup>46</sup> There are strategies to help healthcare professionals build disease and intervention scripts, such as reading scenario-style texts.<sup>46</sup> Thus, providing a hypnosis script to participants during training allows them to refine their intervention script and have it as a reference for memory aid.

The participants also particularly enjoyed the atmosphere of the training, which did not make them feel like they were working, even though it took place over the weekend. They listed various aspects that contributed to the pleasant atmosphere (eg, conducting the training in a small room, sitting in a circle, having an even number of participants ranging between 10 and 12, all from different work backgrounds). These results align with those obtained in the evaluation of the Rel@x training, another HC training with nurses in pediatric oncology settings, where nurses appreciated small groups of seven to ten people maximum.<sup>29</sup> They also correspond with the literature on group dynamics, stating that small groups tend to limit sources of knowledge, whereas larger ones limits possible interaction.<sup>47</sup> Here, the creation of subgroups of three to four individuals, as was the case in the HYlaDO training, proves to be a good approach for fostering critical thinking and decision-making.<sup>47</sup> Additionally, the circular configuration allows the trainer to establish visual contact with all participants and thus promote interactions.<sup>47</sup>

Participants also appreciated the alternation between theoretical presentations and practical exercises, and among the presentation modalities (eg, videos, stories, experiences) that made the training more concrete and interactive. Participants especially enjoyed the practical exercises that allowed them to develop their interest in the technique, their skills, and their confidence. These results are also found in the evaluation of the Rel@x training among nurses.<sup>30</sup>

Finally, the participants considered the two-day weekend training duration appropriate. As in a previous evaluation study of healthcare training, they preferred the training to be condensed into two consecutive days rather than spread over several weeks.<sup>30</sup> Nevertheless, they would have preferred to attend it during regular working hours. Given that time and workforce constraints are central in the medical field,<sup>48</sup> it is crucial to continue advocating for the improvement and recognition of complementary training for healthcare professionals. As they are expected to continuously update their skills,<sup>49</sup> it is necessary to consider these training hours as regular working hours and provide the necessary employment conditions to make these training sessions accessible to all.

## Areas for Improvement in Training

The participants suggested five areas of improvements for the training. First, they mentioned the potential benefits of offering more material during the training. They reported that coming up with their own content might have been too demanding when starting to use HC. Moreover, they would have liked to get easy tips to use. For example, lists of words to use and avoid. This feedback is consistent with that of Aramideh et al study (2022), where nurses suggested adding small cue-card-style reminders to

their training to be used in their care. In addition, still according to script theory, offering more material in the form of hypnosis scripts or texts would enable professionals to have a better mental representation of the intervention and facilitate their practice.<sup>46</sup>

Second, participants also mentioned the need for more practical workshops. These results align with other studies in the context of nursery, which have shown that practice helps them acquire knowledge in addition to theory, and increases motivation to learn.<sup>50</sup> Some information obtained in practice could not be explicitly demonstrated in theory, which underscore the importance of combining theoretical segments with practical workshops when training healthcare professionals.<sup>51</sup> They also felt it would be appropriate to tailor the practice scenarios to participants' professions, and to use crisis simulations to make them more realistic. Again, this suggestion corresponds to a strategy for perfecting the disease script: early exposure to patients and/or the range of possible clinical presentations.<sup>46</sup> Finally, participants mentioned the relevance of teaching techniques of different lengths that could be applied in a wider variety of clinical situations. This would enable professionals to be equipped with ecological techniques that could be applied to a wider variety of situations. This suggestion was also made in the evaluation of Rel@x training with nurses in pediatric oncology settings, where some recommended teaching shorter techniques better adapted to their working conditions.<sup>30</sup>

Third, participants suggested using testimonials from former patients who had experienced hypnosis to benefit from their experiences and suggestions. These results are in line with other studies which suggest that the provision of testimonials in the training environment of healthcare professionals enables early, non-judgmental exposure to patients' experiences.<sup>52</sup> According to this study, and in line with the Health Humanities Portrait Approach, this practice is a pedagogical tool for enriching professionals' knowledge of patients' experiential expertise of their own illness and health.<sup>52</sup> It reduces the risk of dehumanizing patients by avoiding reducing them to their illness and/or pain.<sup>52</sup>

A fourth suggestion for improvement was to hold a follow-up meeting with participants to gauge how well the technique had been integrated into their practice. During this virtual meeting, caregivers could benefit from additional feedback of other professionals, in the form of recommendations and advice on what works for each person in their work environment, or warnings about certain aspects of the technique that work less well in certain contexts. Such meeting would benefit everyone's knowledge of the technique. In addition, it would enable potential avenues of improvement to be worked out for future training courses, following the example of the present study, an essential process in the development of new non-pharmacological interventions.<sup>44</sup>

A final suggestion was to hold workshops for professionals as part of their continuing education. These would take the form of short demonstrations of relevant clinical cases at the end of the day. This suggestion is in line with the obligation of health professionals to keep up to date with medical knowledge and to report on their continuing professional development.<sup>49</sup> It enables professionals to adapt their knowledge, practices and mission to societal,<sup>53</sup> scientific and technological evolutions. In this way, continuing education in hypnotic communication would keep professionals up to date with the latest scientific knowledge in the field, deepening their expertise and the resulting benefits for their patients.

## Limitations of the Work

Some limitations must be acknowledged in interpreting the results. Firstly, two participants in the original study were unable to complete the qualitative interviews, which took place six months after training (in Fall 2022). This means that saturation might not have been met. Their opinions would have provided a better overall picture of training satisfaction. As our qualitative study primarily serves an exploratory purpose, the relatively small sample size was deemed sufficient for the study's objectives and scope. The current data still provide a very rich overlook of participant's perceptions of the training. It would be beneficial for future training evaluations to ensure that qualitative interviews are conducted shortly after training to limit attrition. On the other hand, this study took place at a single training site in the French-speaking province of Canada, with a restricted population of healthcare professionals (respiratory therapists, nurses, psychology students and rehabilitation counsellors), which limits the transferability of data. The evaluation and suggestions for improvements made by participants could differ from one hospital to another and from one profession to another, depending on their needs. Future studies should take these limitations into account.

## Prospects and Recommendations for Further Research

Future HC training will incorporate the comments and suggestions made by participants in this study. In addition to the training manual, participants will be given laminated cards with words and/or phrases to use or avoid. Additionally, a greater proportion of the training will be devoted to practical workshops. Some hypnoanalgesia techniques will be shortened, and a more ecological angle will be taken during training, with each participant having to adapt the technique to his or her specific work environment, all under the trainer's supervision. Testimonials from former patients will be added wherever possible, in the form of face-to-face visits or videos integrated into the training. A virtual follow-up meeting will be organized a few months after the training, to enable participants to share their experiences in practice. Finally, some informal workshops will be organized at the CP management clinic, based on clinical cases deemed of interest by the trainer.

In terms of research, following this first study, we will evaluate the impact of HYlaDO training on participants' perceptions of HC, the acquisition of HC skills, and their applicability in the workplace and hospital. We will also seek to evaluate the effects of the techniques taught in training on patients, in order to better understand their scope and effectiveness.

## Implications for Practice and Conclusion

Through interviews with participants in the HYlaDO training program, the study identified concrete avenues for improvement. Enhancing this training will enable us to expand the medical corps trained in HC, reduce prejudices about this technique, cut associated costs and remedy its current under-utilization in Quebec medical environments. As a result, healthcare professionals in CP management clinics (eg, respiratory therapists, nurses) will be able to use this simple technique while providing their usual care, and thus contribute to the well-being of patients.

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