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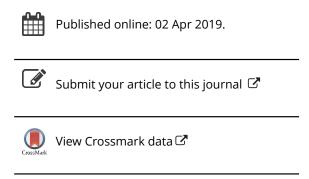
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A HYPNOSIS-BASED GROUP INTERVENTION TO IMPROVE QUALITY OF LIFE IN CHILDREN WITH CANCER AND THEIR PARENTS

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Abstract: Many children with cancer and their parents suffer from distress, fatigue, and relational difficulties. Hypnosis is often used to decrease children's procedure-related pain and distress in pediatric oncology and to improve the well-being of adults with cancer. This article describes a pilot study assessing the acceptability and feasibility of a group intervention combining self-care and hypnosis for children with cancer and their parents, and a quasi-experimental protocol aimed at assessing the efficacy of this intervention to improve quality of life, distress, fatigue, and coping. The pilot study showed that the intervention was feasible and perceived positively. Future research is needed to test the efficacy of group interventions combining self-care and hypnosis to improve quality of life for children with cancer and their families.

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Cancer is the second most common cause of death in children in developed countries (Kaatsch, 2010). Children with cancer often seem to be well adapted to their disease, as several studies did not find any difference between ill and healthy children on measures of emotional distress, adaptation, and posttraumatic stress scores (Kupst & Patenaude, 2016; Muglia-Wechsler, Bragado-Álvarez, & Hernández-Lloreda, 2014; Mullins, Tackett, & Suorsa, 2016; Wechsler & Sánchez-Iglesias, 2013). However, between 10% and 30% of children with cancer suffer from psychological problems (Compas, Jaser, Dunn, & Rodriguez, 2012; Mavrides & Pao, 2014; Wechsler & Sánchez-Iglesias, 2013), the most prominent being procedure-related emotional distress (Hildenbrand, Clawson, Alderfer, & Marsac, 2011; Liossi & Hatira, 2003; Richardson, Smith, McCall, & Pilkington, 2006; Trentacosta et al., 2016) and fatigue (Dupuis et al., 2010; Hildenbrand et al., 2011; Olson, 2014; Walter, Nixon, Davey, Downie, & Horne, 2015), followed by depressive and anxious symptoms (Kearney, Bartell, & Pao, 2016; Mavrides & Pao, 2014; Stuber, 2012). These difficulties do not necessarily end with the completion of cancer treatment (Kupst & Patenaude, 2016; Stuber, 2012).

Parents seem to have more adaptation difficulties than their ill children (Pai, Drotar, Zebracki, Moore, & Youngstrom, 2006; Phipps, Long, Hudson, & Rai, 2005). When cancer is diagnosed, their care responsibilities greatly increase (Wiener, Viola et al., 2016), with practical consequences such as work, financial, or organizational adaptation (Kupst & Patenaude, 2016; Last & Grootenhuis, 2012; Rosenberg-Yunger et al., 2013; Wakefield, McLoone, Evans, Ellis, & Cohn, 2014). This situation also causes an increase in emotional distress (Gage-Bouchard, Devine, & Heckler, 2013; Landolt, Ystrom, Sennhauser, Gnehm, & Vollrath, 2012; Rosenberg-Yunger et al., 2013; Tackett et al., 2016) and impacts the couple's relationship and the family's functioning in terms of coping skills, communication, and time spent together (Compas et al., 2015; Kupst & Patenaude, 2016; Wiener, Battles et al., 2016). It seems that children's distress is highly linked to their parents' difficulties (Landolt et al., 2012; Okado, Long, & Phipps, 2014; Phipps et al., 2005), and parents also react to their children's emotional and behavioral states with emotional distress (Edmond, Graves, Whiting, & Karlson, 2016).

Some interventions have been tested that help individuals facing these difficulties. Psychosocial interventions showed good results in improving a child's adaptation (Mullins et al., 2016; Tahmasebi, Maghsoudi, & Talakoub, 2017), decreasing anxiety, procedure-related pain (Last & Grootenhuis, 2012; Muglia-Wechsler et al., 2014), and emotional distress (Mullins et al., 2016). Concerning fatigue, few interventions have been tested (Walter et al., 2015), except for physical activity (Baumann, Bloch, & Beulertz, 2013; Orsey, Wakefield,

& Cloutier, 2013). Although individual interventions are most common, group interventions are sometimes used with promising results in social skills and functioning, and positive thinking (Barakat et al., 2003; Maurice-Stam, Silberbusch, Last, & Grootenhuis, 2009; Mullins et al., 2016).

Other interventions, based on hypnosis, have also shown some positive effects on procedure-related pain and distress in children with cancer (Accardi & Milling, 2009; Gold, Kant, Belmont, & Butler, 2007; Kurtz & Abrams, 2010; Kuttner, 2012; Kuttner, Bowman, & Teasdale, 1988; Liossi & Hatira, 2003; Richardson et al., 2006), despite methodological issues for some of them, such as a lack of control group or information about the randomization process, small and unpowered samples, or insufficient information regarding group equivalency before the intervention (Richardson et al., 2006).

These promising results can be compared with those obtained in adult cancer patients with whom hypnosis combined with self-care led to less pain, emotional distress, and fatigue (Cramer et al., 2015; Grégoire et al., 2017; Montgomery et al., 2009; Montgomery, Schnur, & Kravits, 2013; Vanhaudenhuyse & Faymonville, 2014). Hypnosis impacts different cerebral regions involved in attentional and evaluative processes, linked to the sensorial and affective perception of stimuli (Vanhaudenhuyse & Faymonville, 2014). Through the attentional absorption induced by hypnosis, therapeutic changes in perception, sensations, behavior, emotion, and/or experiences are possible (Kuttner & Catchpole, 2013), which allow participants to regain some control over their lives and to use their personal resources to change dysfunctional situations or behaviors (Charland-Verville et al., 2017; Vanhaudenhuyse et al., 2015, 2018).

Unlike in adults with cancer, there is a vital need to work with the family of the child with cancer, because children rely on their parents and the whole family is impacted by the disease (Stuber, 2012). To improve parents' well-being, some individual, couple, or family psychosocial interventions can be effective (Muglia-Wechsler et al., 2014; Mullins et al., 2016; Pai et al., 2006). Moreover, group interventions focusing on support, psychoeducation, or problem-solving also showed some positive effects on parental coping, well-being, parental burden, adjustment to the disease, and emotional distress (Foreman, Willis, & Goodenough, 2006; Mullins et al., 2016; Pai et al., 2006). These groups are often conducted in parallel with groups for ill children to allow parents to help their children in the therapeutic process (Plante, Lobato, & Engel, 2001).

There is a need for interventions targeting both parents and children facing cancer (Muglia-Wechsler et al., 2014; Salvador, Crespo,

Martins, Santos, & Canavarro, 2015), to help them to maintain the health and well-being of the whole family (Litzelman, Catrine, Gangnon, & Witt, 2011). We proposed an intervention combining hypnosis and self-care, given its promising results in adults. Hypnosis is possible to implement efficiently in a pediatric oncology hospital. In our clinical practice, we noted that in different situations, such as chronic pain or cancer care, children and their parents ask to learn how to use hypnosis and self-help strategies outside the hospital. Therefore, the topics and exercises addressed during the group sessions are linked to their preoccupations. We propose concrete strategies for them to implement in their daily lives, which fosters children's and parents' mobilization, implication, and adherence. In this article, we present our pilot study aiming to evaluate the feasibility and acceptability of a group intervention combining hypnosis and self-care in two groups in parallel: one with children with cancer and one with their parents.

METHOD

Objective

The objective of this pilot study was to investigate the feasibility (in terms of participation and recruitment capability), acceptability, and preliminary effectiveness of a 6-month group intervention combining self-care and hypnosis for children with cancer and their parents.

Participants

Two groups were set up: one with children suffering from cancer and one with their parents who agreed to participate. Children and adolescents treated for cancer in a specialized pediatric haematology-oncology department in a hospital in Liège were recruited on a voluntary basis by their physician or psychologist. Their parents were invited to join the parents' group. The inclusion criteria for children and adolescents were a diagnosis of cancer (all locations, stages, and treatments accepted) and the ability to speak French. For parents, they were to have a child suffering from cancer who had been included in the children's group, and be able to speak French.

Quantitative and Qualitative Assessment of Feasibility

To assess the feasibility of our intervention, we considered several quantitative data: the time needed to reach the desired sample size of five to 10 children, dropout rates (and the reasons for withdrawal), and participation rates (number of sessions attended by each participant). Moreover, a semidirective interview was led by the therapists in each group at the end of the first session to ask each participant about his or her expectations and interests, and at the end of the last session

to ask about the benefits of the intervention and suggestions for improvement for future sessions.

Intervention

The intervention is a self-care intervention combined with hypnosis developed by our team, based on clinical practice and adapted from previous studies (Faymonville, Bejenke, & Hansen, 2010; Vanhaudenhuyse et al., 2015, 2018). Six 2-hour monthly sessions were scheduled for each group at the hospital. The sessions were led by two physicians (one pediatric oncologist and one anesthetist with extensive experience in oncology) and a psychologist working in the pediatric oncology department. All were trained in hypnosis. The content of the sessions was similar in both groups. Table 1 displays the topics discussed during each session and the hypnosis exercises performed.

The self-care approach fosters decision making through the use of different tasks focused on well-being rather than on the disease itself. Participants had to complete different assignments at home between sessions and keep a work-related diary to discuss how they managed it in their daily life. These tasks were illustrated with metaphors and humorous anecdotes, and were given to participants in a practical and didactic way, with more playful activities used with children, such as drawing or role play. This intervention is based on self-management and patient-empowerment approaches that aim to strengthen assertion, self-esteem, and self-confidence, and that have been used in oncology to improve quality of life, sense of control, social relationships, and fatigue (Kim, Kim, & Mayer, 2017; Stang & Mittelmark, 2010). Participants are encouraged to observe their thoughts and actions, and the tasks proposed during and between sessions help them to detect and react to difficult situations. In this way, they can adopt concrete changes aiming to respect themselves and others (Vanhaudenhuyse et al., 2015, 2018). In many ways, these strategies are similar to those developed in cognitive-behavioral therapy (CBT), which is a "time-sensitive, structured, present-oriented psychotherapy directed toward solving current problems and teaching clients skills to modify dysfunctional thinking and behavior." It is based on the cognitive model according to which the way that people perceive a situation is more closely linked to their reaction than the situation itself (Beck Institute for Cognitive Behavior Therapy, 2016). However, our intervention does not use CBT techniques such as cognitive restructuring or functional analysis by analyzing a specific situation to understand its origin but more generally to comprehend the future. Patients are asked to be actively involved in the process. as the aim is to introduce change in their daily routines.

Table 1 Topics Addressed in Each Group Session

Children's group - Explanation: What is hypnosis? - Common beliefs about hypnosis Answers to participants' questions Mental imagery exercises List of personal needs: Introduction Identification of a safe place Definition of three realistic goals to be achieved in six months List of personal needs List of things in life that are pleasurable and comforting Discussion of stress: What does it mean? When does it appear, and what does it do to your body? - Discussion of the balance between personal resources and environmental requests Optical illusions that fostered cooperation between the children Hypnosis exercise: Fluffy white cloud.

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Session	

- Finding an object that will be associated with a "Stop!" injunction, to use when we feel stressed and ruminate.
 - Mindfulness exercise with food.
- Selective attention test, which fostered cooperation in the group.
 - Breathing exercise (abdominal breathing) with mental imagery (coloured air flow).
- Hypnosis exercise: Adaptation of the "safe haven" exercise (finding and imagining a peaceful and likeable place).
 - Session 4 Painting: A tree that represents me.
- Discussion of the way we talk to ourselves and self-esteem. Creation of a timeline with moments of happiness, self-
- Breathing exercise (abdominal breathing) with mental imagery (colored air flow).

confidence, and pride.

 Hypnosis exercise: Mental imagery (a moment of pride, then a feared situation), with focus on bodily sensations.

Reflection on personal qualities and resources and the importance of knowing them.

Finding an object that will be associated with a "Stop!" injunction, to use when we feel stressed and ruminate.

 Discussion of the way to set priorities in life (importance and urgency).

- Discussion of the imaginary ideal parent.

- Hypnosis exercise: Safe haven.

- Discussion of ruminations and how to cope with them. - Discussion of personal resources that help to combine

work and family.

- Discussion of the way we talk to ourselves and selfesteem, the importance of congratulating ourselves.

esteent, the importance of congratuating oursel - Discussion of the respect of our personal needs.

Assertiveness: "Being able to say 'No."
 Psychoeducation about sleep.

Hypnosis exercise: Pain and colors.

(Continued)

Table 1 (Continued)

	Children's group	Parents' group
Session 5	on of social roles and the way we respond to needs. eness role play: Making a demand and "saying ion of an important personal project and analysis nergy needed. Discussion of self-respect and self-	 - Discussion of social roles and the way we respond to others' needs. - Assertiveness: How to formulate a demand. - Discussion of the balance between the energy put in to a task and the gained benefit. - Discussion of the difficulties and constraints encountered
Session 6		 in daily life. Discussion of the importance of being surrounded by positive people. Hypnosis exercise: Levitation. Discussion of sleep habits. Review of the goals determined at the beginning of the secsions: Have they been achieved? The importance of
		being proud of ourselves, to congratulate ourselves. - Discussion of the adequacy between professional activities and personal needs. - Discussion of irritating situations and how to cope with them in a more positive way. - Two hypnosis exercises: Light journey, and Dreamland.

At the end of each session of the parents' group, a 15-minute hypnosis exercise is conducted under the therapist's supervision. Several small hypnosis exercises were proposed to the children, because it was difficult for them to concentrate during a 15-minute exercise. Each family received a CD with the exercises to encourage athome practice, which is essential to take full advantage of hypnosis without the help of a therapist (Grégoire et al., 2017; Vanhaudenhuyse et al., 2015). It is hypothesized that the practice of self-hypnosis will influence cognition and emotional regulation and therefore facilitate the completion of the assigned tasks. In this way, self-hypnosis is complementary to self-care tasks.

RESULTS

Sample Description

Nine children between 11 and 17 years old participated in the intervention, along with their parents. All of the children were included in the same group. For four children, two parents participated in the intervention, and for the other five children, only the mother participated, leading to a sample of 13 parents. Unfortunately, two children had to withdraw after two sessions: one died and one relapsed. Their mothers left the intervention at the same time. Table 2 shows the demographic and medical data of the sample.

Feasibility of the Intervention

The desired sample size (between five and 10 children) was reached in a month. As described, dropout rates were low: 22.22% for the children and 15.38% for the parents. Average participation rates were high: 3.88 sessions (out of six) for the children, and 3.69 sessions for the parents.

Expectations at the End of the First Group Session

Children decided to participate in the intervention in order to improve their physical and psychological tolerance to treatment, to better control their fear and anxiety, to improve their relationship with their parents and siblings, and to facilitate their social reinsertion. Most parents decided to participate in the intervention in order to accompany their children in the process. Some of them saw the benefit of hypnosis to decrease their child's pain and wanted to generalize the use of this technique to improve their child's well-being, especially in regard to anxiety. Some parents also decided to participate to focus on themselves, disconnect from their daily routine, and relax.

Table 2
Demographic and Medical Data of the Sample

	Children ($N = 9$)	Parents $(N = 13)$
Age		_
Mean (SD)	14.44 (2.01)	46.3 (7.69)
Range	11–17	36-64
Gender (<i>N</i> , %)		
Male	3 (33.33)	4 (30.77)
Female	6 (66.67)	9 (69.23)
Professional status (N, %)		
Employed		6 (46.15)
Unemployed/retired		2 (15.38)
Independent		4 (30.77)
Missing data		1 (7.69)
Cancer diagnosis (N, %)		
Hodgkin lymphoma	1 (11.11)	
Ewing sarcoma	2 (22.22)	
Osteosarcoma	1 (11.11)	
Medulloblastoma	1 (11.11)	
Acute lymphoblastic leukaemia	1 (11.11)	
Acute myeloblastic leukaemia	2 (22.22)	
Congenital neutropenia + myelodysplasia	1 (11.11)	
Time since diagnosis (in months)		
Mean (SD)	15.89 (12.50)	
Range	3–36	
Treatment received (N, %)		
Surgery	4 (44.44)	
Chemotherapy	8 (88.89)	
Radiation therapy	3 (33.33)	
Stem cell transplant	4 (44.44)	
Treatment status (N, %)		
Treatment completed	3 (33.33)	
Ongoing treatment	6 (66.67)	

Benefits at the End of the Last Session

After their participation, parents highlighted the utility of sharing their experience with other parents. In this group, parents of children in treatment were mixed with parents of children off treatment, which was seen as an advantage by most of them. Talking with parents of children who had finished their treatment was comforting and hopeful for the others. They also reported better regulation of emotion after the intervention. Parents used the hypnosis exercises quite often to relax, sometimes with their children, and were satisfied that they could help their children to

be calmer. They reported increased well-being for themselves and their children. Some parents also had reflections on the necessity to take care of themselves. In conclusion, they realized that the intervention was also useful to directly help themselves.

Children noted that the intervention helped them to learn useful strategies to cope with negative emotions, to relax, to respect themselves, and to be more assertive. Breathing exercises particularly helped them to relax in stressful situations. They identified the utility of sharing their experiences with other people in the same situation in order to better know each other and themselves. All participants thought it would be useful to propose this intervention to other families dealing with childhood cancer.

Suggestions from the participants mostly concerned the frequency of the sessions: One per month seemed to be the best option for all of them. The playful activities were appreciated by the children, and they recommended that we continue with them. All participants also thought that mixed groups (with participants in and off treatment and of different ages) were a good option, as they enhanced the sharing of different experiences. Finally, it was suggested that we integrate siblings in the group, as healthy siblings of children with cancer can endure difficult and conflicting emotions, such as anxiety, sadness, loneliness, guilt, and anger (D'Urso, Mastroyannopoulou, & Kirby, 2017; Long, Alderfer, Ewing, & Marsland, 2013; Prchal, Graf, Bergstraesser, & Landolt, 2012). This suggestion was considered relevant and was therefore taken into account for the development of a future research protocol.

DISCUSSION

Even if most children with cancer are well adapted to the disease (Kupst & Patenaude, 2016; Muglia-Wechsler et al., 2014; Mullins et al., 2016; Wechsler & Sánchez-Iglesias, 2013), cancer still causes psychological problems for some, such as procedure-related distress, fatigue, depression, and anxiety (Compas et al., 2012; Dupuis et al., 2010; Hildenbrand et al., 2011; Mavrides & Pao, 2014; Olson, 2014; Stuber, 2012; Trentacosta et al., 2016; Walter et al., 2015; Wechsler & Sánchez-Iglesias, 2013). Pediatric cancer also affects a child's siblings (D'Urso et al., 2017; Houtzager, Grootenhuis, Caron, & Last, 2004; Long et al., 2013; Prchal et al., 2012) as well as parents, who often experienced more difficulties than the child (Pai et al., 2006; Phipps, Larson, Long, & Rai, 2006), including high anxiety and depression (Gage-Bouchard et al., 2013; Landolt et al., 2012; Rosenberg-Yunger et al., 2013; Tackett et al., 2016). Although interventions exist in oncology settings to cope with these symptoms, there is a lack of data on the interest of hypnosis

and group interventions to help children and their parents deal with cancer

The results of our pilot study showed that a group intervention combining hypnosis and self-care for children with cancer and their parents was feasible and positive for the participants. Some limitations have to be noted. First, our sample was small and could not be representative of the studied population. Second, we did not use objective measures of satisfaction or change. Finally, our sample included children from 11 to 17 years old, which could be considered challenging at a developmental level. However, we made sure that exercises, explanations, and activities were accessible to every child, and we observed that this wide age range was positive for the group dynamic. For instance, it helped adolescents who are more reserved and the center of their family's preoccupations, to find their place and be more active in order to accompany younger children. Young children were also boosted and valued through their contacts with adolescents. However, when younger children faced some difficulties, for example in understanding some concepts that are discussed (such as self-esteem) or some tasks (writing a list of one's qualities), the psychologist, who attended every session, helped them to better understand the tasks or invited them to give their opinions during the sessions.

Directions for Future Research

A main limitation of this study was the lack of objective measures of satisfaction and change among the participants, and a larger study is needed to determine efficacy. This will be addressed in future research by asking participants to complete questionnaires and a semistructured interview before and after the intervention. Our plan is to conduct a quasi-experimental study to assess the efficacy of this intervention to improve quality of life and fatigue of children with cancer and their siblings, and to improve the quality of life, emotional distress, fatigue, and coping of their parents. The planned intervention will involve six 2-hour monthly sessions of a group intervention combining self-care techniques and hypnosis, as in the pilot study.

The questionnaires will assess sociodemographic data; quality of life of ill children, siblings, and parents; cancer-related quality of life; impact of cancer on the family functioning; fatigue of ill children and their parents; parents' emotional distress and coping strategies; and participants' satisfaction with the intervention. The semistructured interview will collect the participants' expectations before the first session, and their opinions and suggestions after the last session, to investigate the mechanisms of change and most useful components of the intervention.

Our study will also allow for further insight with longitudinal followup of patients and their families after a few years. Innovative future research based on our encouraging pilot data may help to improve the existing psychological interventions in pediatric oncology settings.

REGISTRATION

ClinicalTrials.gov Identifier: NCT03435042 Registered in February 2018.

ETHICS, CONSENT, AND PERMISSIONS

All procedures performed in this study were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the ethics committee of the Centre Hospitalier Chrétien Liégeois (CHC), with each participant providing written consent.

AUTHORS' CONTRIBUTIONS

CG participated in the conception and design of the study, in the acquisition and interpretation of data, and in drafting the manuscript. MEF, CC, JM, and IB participated in the conception and design of the study, in the acquisition and interpretation of data, and in revising the manuscript critically for important intellectual content. MEF, CC, and JM also led the group sessions. All authors read and approved the final manuscript and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

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Eine Hypnose-basierte Gruppenintervention, um Kindern mit Krebs und deren Eltern die Lebensqualität zu verbessern

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Abstract : Viele Kinder mit Krebs und deren Eltern leiden unter Verzweiflung, Erschöpfung und ähnlichen Schwierigkeiten. Hypnose wird in der Kinderonkologie oft benutzt, um den Schmerz und die Verzweiflung der Kinder, die mit der Therapie einhergehen, zu reduzieren und das Wohlgefühl Erwachsener mit Krebs zu verbessern. Dieses Paper

beschreibt eine Pilotstudie, die die Eignung und Durchführbarkeit einer Gruppenintervention, welche Eigenfürsorge und Hypnose für Kinder mit Krebs und deren Eltern, kombiniert, und ein Quasi-Experiment Protokoll, das darauf abzielt, die Effizienz dieser Intervention zur Verbesserung der Lebensqualität, Verzweiflung, Erschöpfung und Bewältigungsstrategien zu untersuchen. Die Pilotstudie zeigte, daß die Intervention durchführbar war und positiv aufgenommen würde. Weitere Forschung ist nötig, um die Effizienz von Gruppeninterventionen, die Eigenfürsorge und Hypnose kombinieren, um die Lebensqualität für Kinder mit Krebs und deren Familien zu verbessern, zu testen.

STEPHANIE RIEGEL, M.D.

Une intervention hypnotique de groupe pour améliorer la qualité de vie des enfants atteints de cancer et celle de leurs parents

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JENNIFER MARINI ET ISABELLE BRAGARD

Résumé: De nombreux enfants atteints du cancer et leurs parents souffrent de détresse, d'épuisement et de difficultés relationnelles. L'hypnose est souvent utilisée en oncologie pédiatrique pour diminuer la douleur et la détresse des enfants liées aux divers soins ou examens qu'ils doivent subir, tout comme elle favorise le bien-être des adultes atteints de cancer. Cet article décrit une étude pilote évaluant l'acceptabilité et la faisabilité d'une intervention de groupe combinant les autosoins et l'hypnose chez des enfants atteints du cancer et leurs parents, et un protocole quasi-exp érimental visant à évaluer l'efficacité de cette intervention pour améliorer la qualité de vie et la capacité d'adaptation des sujets, et réduire leurs symptômes de détresse et d'épuisement. L'étude pilote a démontré que l'intervention était réalisable et perçue positivement. Il sera nécessaire d'effectuer d'autres tests visant à évaluer l'efficacité des interventions de groupe combinant les autosoins et l'hypnose pour améliorer la qualité de vie des enfants atteints de cancer et celle de leur famille.

JOHANNE RAYNAULT C. Tr. (STIBC)

Una intervención grupal basada en hipnosis para mejorar la calidad de vida de niños con cáncer y sus padres

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Resumen: Muchos niños con cáncer, y sus padres, sufren de angustia, fatiga y dificultades en sus relaciones. La hipnosis comúnmente se utiliza para decrecer el dolor y angustia relacionados con procedimientos oncológicos pediátricos y para mejorar el bienestar en adultos con cáncer. Este artículo describe un estudio piloto que evalúa la aceptación y viabilidad de una intervención grupal que combina el autocuidado y la hipnosis para niños

con cáncer y sus padres, y un protocolo cuasiexperimental dirigido a evaluar la eficacia de esta intervención para mejorar la calidad de vida, angustia, fatiga y afrontamiento. El estudio piloto mostró que la intervención es factible y fue percibida positivamente. Se requiere más investigación para evaluar la eficacia de intervenciones grupales que combinan el autocuidado y la hipnosis para mejorar la calidad de vida de niños con cáncer y sus familias.

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