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Psychological group intervention to support parenting: Qualitative study about needs and preferences of mothers with breast cancer

Rita Tavares [a,b], Ana Rita Oliveira [b], Tânia Brandão [c,d], Paula Mena Matos [b,c,*]

[a] *Hospital Center of Vila Nova de Gaia/Espinho, EPE, Portugal*
[b] *Faculty of Psychology and Education Sciences, University of Porto, Portugal*
[c] *Center for Psychology at University of Porto, Portugal*
[d] *CIP, Departamento de Psicologia, Universidade Autónoma de Lisboa Luís de Camões, Portugal*

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ABSTRACT

Purpose: Parental worries and parenting stress can increase when a mother receives a breast cancer diagnosis. This study presents the findings of needs and preferences of mothers with breast cancer to inform the development of a group intervention program for mothers with breast cancer and other alternatives of support.

Methods: Using qualitative data from eighteen Portuguese women with at least one minor child when they received a breast cancer diagnosis, and content analysis on three focus groups transcripts, we uncover the participants' parenting needs and their perceptions of the potential benefits and the formal aspects of a group intervention.

Results: Mothers revealed that they need support on several parenting-related issues (e.g., communicating with the children about the mother's diagnosis, dealing with children's responses and difficult questions). They provided information about the potential benefits of group intervention and preferences regarding intervention content, sessions' structure, frequency, location, and timing. Some participants also suggested other types of support, such as online information and individual psychological support.

Conclusions: The development of an intervention informed by the patients' needs and preferences can contribute to increasing its feasibility and efficacy. The findings indicated the specific parenting needs of Portuguese mothers with breast cancer, and it offered health professionals some important clues on how to support other family members.

1. Introduction

Being a mother and receiving a diagnosis of Breast Cancer (BC) can cause anxiety and additional parenting worries and stress (Akter et al., 2015; Arès et al., 2014; Moore et al., 2015; Muriel et al., 2012), especially when children are dependent. Findings of a recent systematic review indicated that cancer patients with dependent children experienced high levels of depression and anxiety symptoms (Johannsen et al., 2022). Additionally, women with BC are more likely to develop mental disorders during the disease trajectory than patients with other types of cancer (Mehnert et al., 2014). Mothers with BC become concerned with the impact of their disease on their children (Fisher and O'Connor, 2012; Semple and McCance, 2010; Tavares et al., 2018; Visser et al., 2004). Communicating with children about parental cancer is a significant concern (Semple and McCance, 2010; Stiffler et al., 2008; Tavares et al., 2018), and it is an important task for mothers with BC (Barnes et al., 2000, 2002; Sinclair et al., 2019; Turner et al., 2007). The mothers' mental burden could also increase because of common concerns about the children's future and the father's ability to care of the children if the mother dies (Tavares et al., 2018). Some mothers with BC feel incapable of satisfying the needs of their children in their daily life, while simultaneously handling the new challenges of BC (Barnes et al., 2002; Ernst et al., 2013; Fisher & O'Connor, 2012; Stiffler et al., 2008; Stinesen-Kollberg et al., 2013; Turner et al., 2007). BC diagnosis causes inevitable changes in all family members and family dynamics; for example, it can decrease mothers' availability to care for their children (Fisher & O'Connor, 2012; Ohlén and Holm, 2006). Often, when mothers identify changes in their parenting ability, they report a decreased satisfaction with their parental functions and feelings of guilt for not being a "good mom" (Fisher & O'Connor, 2012; Helseth and

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* Corresponding author. Faculty of Psychology and Education Sciences, University of Porto, Rua Alfredo Allen, 4200-392, Porto, Portugal
E-mail address: pmmatos@fpce.up.pt (P.M. Matos).

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Ulfsæt, 2005; Ohlén and Holm, 2006; Stiffler et al., 2008; Tavares et al., 2018). Consequently, many mothers express the need for health professionals' support, assistance, and advice about parenting during the adaptation to cancer trajectory (Ernst et al., 2013; Sinclair et al., 2019; Tavares et al., 2018). Even the women who received professional help from their oncologists seem to be unsatisfied (Ernst et al., 2013; Turner et al., 2007) because they feel health professionals do not understand the challenges of parenting with cancer (Turner et al., 2007).

Recently, there has been an increasing awareness of the impact of parental cancer on the family. However, parent-centred group interventions aiming at helping mothers with BC handle the challenges triggered by their cancer are scarce (Inhestern et al., 2016; F. M. Lewis et al., 2017). To our knowledge, there are only five well-documented parent-centred interventions aiming to help parents deal with the parenting challenges triggered by parental cancer; namely *Art-therapy program for parents* (Weiss et al., 2005), *Preventive intervention for bereaved children* (Christ et al., 2005), *Enhancing Connection Program* (Lewis et al., 2006, 2015), *Being a parent and coping with cancer* (Hasson-Ohayon and Braun, 2011), and *Enhancing Parenting in Cancer* (Stafford et al., 2017). *Preventive intervention for bereaved children* (for parents facing terminal cancer; Christ et al., 1991) and *Enhancing Connection Program* (for parents with early cancer; Lewis et al., 2015, 2006) are individual psychoeducational interventions, and they are the only two rigorously tested interventions using a randomized controlled trial or a control group (Inhestern et al., 2016). The *Enhancing Connection Program* was recently adapted to a group-delivered version (i.e., Enhancing Connections-Group) to increase the intervention's sustainability (Frances Marcus Lewis et al., 2020). This pilot feasibility study with 16 parents with non-metastatic cancer found that the program decreased parents' anxiety, increased parents' skills and self-efficacy, and improved parenting quality. However, there were no statistically significant changes in the child's behavioural and emotional adjustment or the parents' depressed mood (Lewis et al., 2020).

Group interventions present some advantages over individual interventions. On the one hand, according to Yalom and Molyn (2005), the group offers a safe and supportive environment by encouraging interpersonal learning and normalizing experiences. The facilitator can use the individual experience of other patients coping with BC and adapting to issues shared with other group members (Spira and Reed, 2003a). On the other hand, there are advantages related to cost-effectiveness since group interventions are less expensive than individual interventions. However, it is important to hear the voices of the women regarding not only aspects of the content of the intervention, but also the feasibility of the group intervention.

From a constructivist perspective, reality is a subjective experience constructed by each individual and frequently influenced by cultural and social factors (Guba and Lincoln, 1989). Therefore, when psychologists intend to develop a new intervention to answer specific needs, they should involve the target population of each community. Thus, to develop an effective group intervention for mothers with BC, it is crucial to identify their specific parenting needs and preferences regarding the group intervention characteristics.

The present study is part of a larger project intended to understand and support parenting in Portuguese families with dependent children whose mothers have breast cancer. The data in this article represented one of the four steps followed to develop a psychological intervention program for mothers with breast cancer.

This exploratory study focuses on identifying parenting challenges in families with maternal cancer and developing a psychological intervention program for mothers with BC accordingly to their needs. Following a participatory research approach, this study involves participants in the process of developing a group intervention program for mothers with BC using Focus Groups (FG). The main research questions were:

1. What should be targeted in an intervention offered to a mother with BC?
2. What are the benefits and challenges of group intervention?
3. What structure should the group intervention program have to satisfy the parenting needs of mothers with BC?

2. Methods

2.1. Participants and the recruitment process

Using a snowball method, we recruited participants from two nonprofit associations that support women with BC. Inclusion criteria: women diagnosed with BC, with at least one dependent child at the diagnosis stage (i.e., aged less than 18 years old). Criteria for exclusion: women diagnosed with cancer for less than 12 months and still undergoing oncological treatment (except hormone therapy). Eighteen women participated in this study ($M_{age} = 48.56$ years, $SD = 9.03$, range 38–69 years old) and were divided into three FG. We planned to define a date for one group when we achieved at least six participants interested in the study. Therefore, the participants' distribution was random, and did not follow a specific rule or criterion. Most participants were married or living with a partner ($n = 16$), and were not active in paid work because they were unemployed, medically discharged, or retired ($n = 10$). Eleven participants had two or more children and at the mother's diagnosis date, the mean age of the dependent children was 98.57 months (range 6–216 months). On average, the time since diagnosis was 98.63 months. Regarding oncological treatments, all participants had a surgery procedure: 16 had chemotherapy, 13 had hormone therapy, 12 had radiotherapy, and two had immunotherapy. Eight participants had professional psychological support in the past, four was individual therapy, and the other four was group therapy. Table 1 presents the

Table 1

Sociodemographic and clinical data of each focus groups participants.

	FG1	FG2	FG3	Total
Number of participants	6	5	7	18
Marital status				
Married or living with partner	6	4	6	16
Divorced	0	1	1	2
Education Level				
Middle school	0	0	2	2
High school	3	2	4	9
Graduation	3	3	1	7
Professional occupation				
Employed	5	0	3	8
Unemployed	0	0	2	2
Medical discharge	1	0	2	3
Retried	0	5	0	5
Mean age in years (range)	43.33 (38–50)	58.00 (42–69)	46.29 (38–54)	48.56 (38–69)
Number of children				
One child	3	2	2	7
Two children	3	3	4	10
Three children	0	0	1	1
Mean age of minor children in months at the mother's diagnosis (range)	59.00 (6–132)	99.60 (18–174)	136.86 (76–216)	98.57 (6–216)
Mean time since diagnosis in months (range)	66.33 (18–151)	209.25 (48–301)	57.17 (76–216)	98.63
Oncology treatments				
Surgery	6	5	7	18
Chemotherapy	6	3	7	16
Radiotherapy	4	3	5	12
Hormonal therapy	4	3	6	13
Immunotherapy	1	0	1	2
Psychological intervention				
Individual therapy	1	0	3	4
Group therapy	1	0	3	4

demographic and clinical information, describing the participants for each group.

2.2. Procedure and interview

The Ethics Committee of the Ethics Committee of the Faculty of Psychology and Education Sciences of the University of Porto (reference no 2017/12-2) approved this study. The first author contacted two Portuguese associations that support women with BC. Firstly, the association representative approached the participants. After confirming their consent, the researcher contacted them once more via telephone, to inform the aims and procedures of the FG. During this period, the participants had the opportunity to ask questions about the study. The women did not receive any compensation for their participation. The FG occurred at the Faculty of Psychology and Education Sciences of the University of Porto and at an Oncology Centre. All participants signed an informed consent form before starting the FG. Each FG lasted, on average, 107 min, and sessions were recorded on video and audiotape. Two female researchers led the FG, one as a moderator (first author) and another as an assistant (second author). The researchers suggested the discussion topics according to the interview guide (Kieffer et al., 2005; Morgan, 1998, 2010). The topics which guided the interview were based on previous research which involved the participation of the target population (Ernst et al., 2013; Sinclair et al., 2019; Tavares et al., 2018; Tavares and Matos, 2016; Turner et al., 2007). However, we maintained an open stance for new themes to emerge.

The interview guide addressed the following topics: parenting challenges; main concerns related to children; structure and themes of useful parent-centred group interventions; logistics of the intervention; possible benefits of a parent support group, and other ways to support families facing maternal BC. The interview was developed for the purpose of this study.

2.3. Data analysis

The audio and videotapes were transcribed verbatim with the support of *QSR NVivo 11*. To answer the study's questions, the data were analysed using the content analysis method (Bardin, 1977) and *QSR NVivo 11*, to identify frequent and notable themes. After transcribing and re-reading each FG transcript, we proceeded with the second step of content analysis (i.e., encoding) to define emerging themes. The following step included categorizing and organizing the emerged themes through an inductive and deductive process. And lastly, the interpretation of data using an inferential process (Bardin, 1977). The frequencies of each theme were verified to understand its importance better and guide the findings' presentation. The data analysis involved a back and forward process between transcriptions, emerged themes, and data interpretations (Braun and Clarke, 2006). The first and second authors independently defined the themes. The last author reviewed and discussed the process of theme categorization and the final coded themes with the other researchers. All researchers examined the data for the categories without an initial agreement to define the final themes consensually.

3. Results

From the three questions made, four major themes emerged: (a) contents of the intervention; (b) potential benefits of group intervention; (c) structure of the intervention; and (d) other types of support (see Fig. 1). Table 2 presents some representative quotations of each theme that emerged from the FG.

3.1. Contents of the intervention

Four topics (in italic) were identified as essential to discuss during the psychological intervention with mothers with BC. These were closely related to the participants' main parenting concerns and challenges.

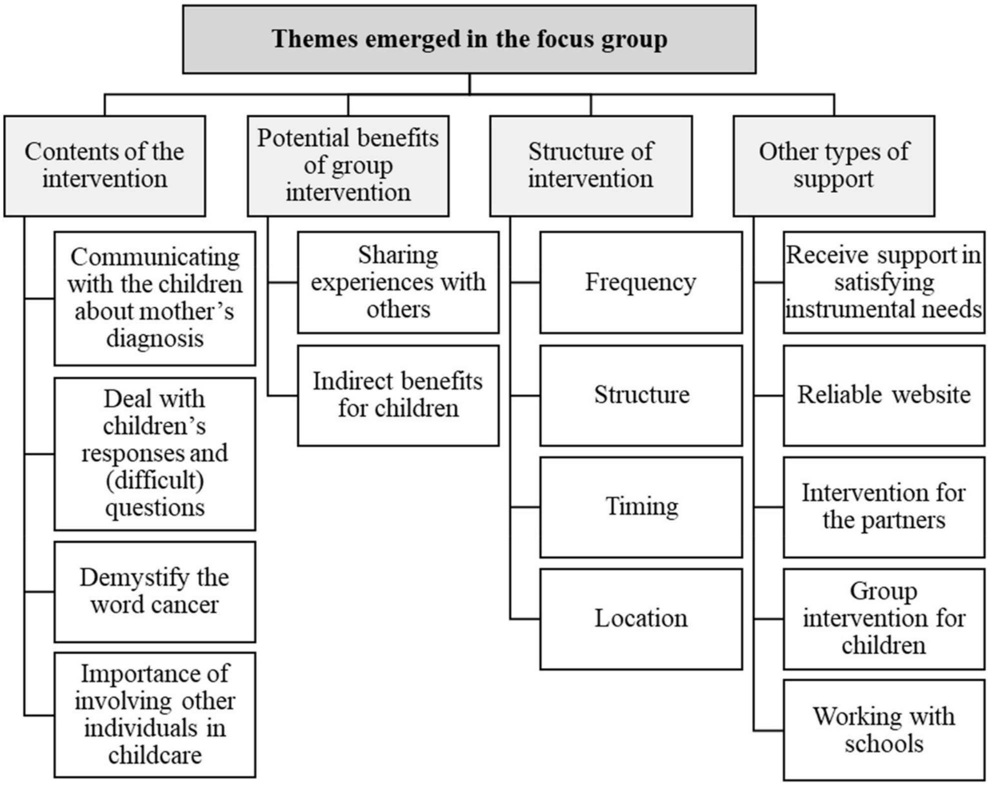

Fig. 1. Themes discussed by participants during the focus group.

Table 2
Themes emerging in the focus groups (FG) and corresponding representative quotations.

Themes [number of references]	Examples of Citations
Contents of the intervention	
Communicating with the children about the mother's diagnosis [35]	
Personal doubts [23]	"My biggest doubt was if I should talk about my cancer … Should we talk about cancer? Should we force children to talk, or it is more comfortable to allow them to hide their feelings and concerns?" [P2-FG1] "We are not prepared for having cancer, and we do not receive support to communicate with our children. We do not know how we should share our diagnosis with the children, if we should hide it or if we should tell them the truth." [P3-FG3]
Misconceptions about cancer [3]	"How to communicate such a problem with my son? I was not prepared for such a situation because I had the idea that cancer always causes death … How can I tell my son? I could not." [P1-FG2] "… it was my husband who told my son that I had cancer because I did not have the courage. My first thought was: I will die." [P3-FG2]
Conflicts between mother and children [9]	"I wish my daughter had expressed her [negative] feelings, but I did not know how to approach this issue … I did not know how to talk with her. When we talked, the conflict emerged." [P5-FG3]
Deal with children's responses and (difficult) questions [21]	
Biggest challenge [3]	"Handling my daughter's reactions was the most complicated part of my illness … My daughter [age …] rejected me. One day, she needed me to take her to a birthday party, but she wanted me to use a wig. I refused to use a wig. She said: *So, you will not take me there*. My son [age …] went to talk with her, and she revealed that she was afraid her friends would start to dislike her because of my illness." [P5-FG3]
Unable to deal with children's distinct reactions [18]	"My son was four years old. He was in the phase where children ask many questions about why something happens. There were several moments where he asked me: *Mom, are you going to die? Why can't you do this? Why can't you go there?* In these moments, my husband helped me and talked with my son, because I did not know how to answer him." [P3-FG1]
Demystify the word cancer [11]	"First, it is necessary to demystify cancer … Demystifying implies talking about cancer. To understand that it is not because it is cancer that things can go wrong. [In reality] anything can go wrong." [P1-FG1]
Importance of involving other individuals in childcare [9]	"Neither the mother nor the father will be the best people to promote feelings of security in children, because they may feel that parents will lie to protect them" [P2-FG1]
Potential benefits of group intervention	
Sharing experiences with others in a group [60]	
Safe space to express feelings and concerns [33]	"I feel that it is very helpful to share my experiences and to listen to the experiences of other mothers with BC." [P2-FG2] "Exactly, having a group to share experiences is necessary." [P3-FG2] "For me, it would be helpful to have a group where I can express my worries regarding how to share my diagnosis with my children." [P1-FG2]
Emotional and social support [12]	"It is very interesting to be involved in a support group, where we can talk, exteriorize and express our feelings … It is important to be a part of a support group with weekly meetings … because afterwards we create friendships for life." [P7-FG3] "It is fundamental to have a space where mothers can share their experiences with children without fear. A space where we can expose our doubts." [P1-FG1] "We [members of a group intervention] started to create a family." [P6-FG3]
Uncomfortable to participate in a group intervention [15]	"For me this type of intervention was unthinkable. I would never accept it." [P2-FG2] "For me too. The [strength] had to come from me. I had to cure myself. I needed to make self-healing." [P5-FG2] "For me, to be a part of an intervention group, it would be difficult." [P6-FG1]
Indirect benefits for children [29]	
Improve mother's well-being [15]	"Our children are fine when we feel good." [P4-FG1] "Everyone wins with support." [P5-FG2] "If we feel better, our children do not worry with us" [P6-FG3]
Improve parental competences [13]	"My daughter will benefit from my intervention because if I am fine, I will able to communicate better with her." [P1-FG1] "If we are well, we have another way to talk with children. We can understand them in a better way." [P4-FG1] "Listening to other examples and experiences, we will learn different ways to cope with children." [P2-FG3] "With the intervention, maybe we will be more capable of dealing with their [children] problems and reactions." [P7-FG3]
Structure of intervention	
Frequency [21]	
Weekly sessions [12]	"It is crucial to have weekly sessions, because the members will never be present in all sessions. To have the session biweekly, I believe it offers little support." [P7-FG3] "Weekly, we know that we have a specific time and place to [receive support]." [P3-FG3]
Occasional sessions [9]	"The sessions cannot be frequent because we [patients] are not available for [psychological intervention sessions] … Weekly, maybe it will be a lot. It should be once a month." [P2-FG2] "During the chemotherapy, we do not have the energy to go anywhere." [P3-FG2]
Structure [21]	
Thematic sessions [7]	"Maybe, it would be better to have specific themes in each session, because the discussion will disperse completely." [P4-FG3] "I think that being in the support group, it is very interesting. It is important to follow a theme but also to have a space to share our experiences." [P7-FG3]
Unstructured sessions [9]	"[The themes of the session should be free] because each person has their concerns." [P4-FG2] "I think that the psychologist should let the group's members decide what they want to discuss. But if there are some difficult themes not addressed in sessions, [the psychologist] should encourage patients to consider them." [P7-FG3]
Psychoeducational sessions [5]	"I participated in a group intervention. Each session had a theme. Most of the intervention time was the psychologist talking about the theme of the session. She gave us some examples of how we should handle our emotions and family." [P6-FG3]

(*continued on next page*)

Table 2 (*continued*)

Themes [number of references]	Examples of Citations
Timing [10]	
After the BC diagnosis [2]	"For me, the worst period was the moment of diagnosis and the treatments. After this time, everything goes back to normal." [P6-FG1] "I participated in a support group many months after my diagnosis, and I think that this kind of support should be given early at the beginning of the disease." [P7-FG3]
After the oncological treatments [8]	"Everyone focuses on the time of the diagnosis and the treatment period. I think that the phase after treatments is worse than the treatment time. Regarding emotional issues, I believe it is decidedly the worst period … During the treatments, we [patients] try to be super-women, and suddenly everything is over, and we need to express our feelings … During the treatments, we need to channel all our energy for other things [like the recovery]." [P2-FG1] "Only after one year of going through all this [diagnosis and treatments] did I realize what I really went through." [P3-FG1]
Location [15]	
Hospital [6]	"I think it would be easier for patients to have the intervention at the oncological centre." [P5-FG2] "[If the intervention occurs at the hospital], the patients will be informed that there is a group intervention at the hospital. I think it would be easier than having the intervention outside the hospital." [P2-FG2] "[It is better to have the intervention at the hospital] because the patients are already at the oncological centre. They are already out of the house." [P3-FG2]
Community [9]	"Decentralizing the support is important. The smaller the distance between the patients' homes and the place of intervention, the better it will be." [P6-FG3] "I think that the environment where we carry things out influences the way things occur. For example, the [bad aspect of the] hospital building makes me feel sad. On the contrary, the environment of the clinic is better. The environment and the people of the clinic are better. The hospital has a corrosive environment." [P7-FG3]
Other types of support	
Receive support in satisfying instrumental needs [14]	"At home, I did not need to wash the clothes and the windows. I did not need to make the beds. I did not need to do anything. I could not do any activities that entailed fine motor skills. I consider it essential to create a support network for mothers with BC that have no support [in household tasks]. For these mothers, it is extremely difficult to take care of their children." [P2-FG1] "It is fundamental to provide social support. Many patients cry not because of the disease, but because of their life at home. They do not have money for their needs." [P1-FG2] "[Sometimes I thought:] How am I going to feed my daughters today? I had to borrow money to go to the hospital. Sometimes, I needed to buy milk and I did not have money. Who would look after my daughters when I needed to leave home at six a.m., and their school started at half past eight?" [P6-FG3]
Reliable website [93]	"[Having a website with information regarding psychological support] allows a person to maintain their privacy. If he/she wants to implement [some strategies], he/she does it. If he/she does not want to implement [some strategies] he/she does not do it … During the disease, many times my daughter told me*: I know that you said that everything is fine, but what if* … And we do not have the answer for *What if* … [So, if there is a website] the mother can say to their child: *You have this website. If you have any doubts, you can check this website.*" [P2-FG1]
Intervention for the partners [29]	"[During the disease] everything is focused on patients, but the person who follows us also needs help. Maybe they felt more lost than us [patients]. At least my husband felt very lost." [P2-FG1] "Close relatives who are giving us support also need help because this experience does not kill but it is exhausting." [P1-FG1]
Group intervention for children [47]	"I think there should be the development of groups for children of the same age, where they can be like we are now … Space where they can talk among themselves. Maybe they have the same feelings related to their mothers. Perhaps, in the beginning, they refuse to speak, but with the help of the psychologist, after half an hour, they start to talk … They will begin to see that the feelings are common, and they are not abnormal." [P5-FG3] "They [children] see that other children feel the same, and they express what they feel and stop suppressing their feelings." [P2-FG3]
Working with schools [46]	"There is a protocol between our association and schools. We do Breast Theatre, and we visit some schools. We are going to talk to children about cancer. Some children pose questions because they have sick relatives, and they have curiosity about cancer. [P1-FG3] "Schools should start to demystify cancer and talk about the myths related to cancer." [P5-FG3] "It would be good if the class director could schedule meetings with other parents … Because when other parents knew that I was sick, I started having much more help. During the weekend, some parents called me and invited my daughter to go with them to the cinema." [P5-FG3]

One of the main targets of the intervention is related to *communicating with the children about the mother's diagnosis* because participants assumed this topic was a significant concern. Their concerns relate to personal doubts, such as: whether or not to share the diagnosis with the children; when, how, and what to talk/reveal about the cancer; and how often they should initiate this dialogue. For some participants, their misconception about cancer is often the reason for these doubts and worries when communicating with children. Other participants also mentioned needing guidance on speaking with children about maternal cancer at different moments. Despite the mothers' insecurities, they tried to communicate with their children. However, the lack of communication skills in some families triggered conflicts between the mothers and their children.

Another target of the intervention is *dealing with children's responses and (difficult) questions* regarding their mothers' cancer. This was the biggest challenge for some mothers, more significant than sharing their diagnosis. Mothers felt unable to deal with their children's distinct reactions, such as emotional symptoms (e.g., fearing their mother's death, hiding negative emotions), relationship problems (e.g., rejecting their mother), behavioural problems (e.g., aggressiveness), among others. Participants also needed help to answer difficult questions asked by their children, such as “Will you die?”.

To *demystify the word cancer*, some participants suggested discussing “what is cancer?” at the beginning of the intervention. When patients receive a cancer diagnosis, they generally think about death. However, since the survival rates are improving, participants considered it crucial to demystify the word cancer so others and patients may understand that cancer does not mean death nowadays.

Another target of the intervention mentioned by participants was the *importance of involving other individuals in childcare.* Participants noted that sometimes children hide their doubts and questions about maternal cancer from their parents because they know their parents will try to protect them. For this reason, some participants considered it crucial to select a trustworthy friend/relative with whom the children can talk about cancer. However, for other mothers, accepting the help of friends/relatives in childcare is not easy since they fear that their children will have difficulties getting help from another person.

3.2. Potential benefits of group intervention

Participants mentioned the potential personal benefits of a group intervention and the potential indirect benefits for their children. *Sharing experiences with others* in a group where participants share their experiences and listen to the experiences of other mothers with BC is one of the most helpful aspects mentioned by participants. Participants highlighted the importance of having a secure relational context where they could express their feelings and concerns. According to the experience of some participants, being part of a group intervention provides emotional and social support and may increase mothers’ social networks. However, some participants expressed they would feel uncomfortable participating in a group intervention. Some mothers reported feeling too exposed and vulnerable, and the group would activate the emergence of negative feelings. Other participants considered adapting to BC exclusively by themselves and prepared to face the disease alone.

Additionally, some participants considered that a group intervention for mothers would also have *indirect benefits for children.* On the one hand, the group would improve the mother’s well-being, and children would feel fewer concerns because the mother feels better. And on the other hand, the intervention would improve several parental competences regarding communication, dealing with, and understanding children’s reactions.

3.3. Structure of the intervention

Participants discussed the characteristics and settings the group intervention should have, regarding *frequency*, *structure*, *timing*, and *location.* For all these issues, participants presented different opinions.

Concerning the *frequency*, participants’ opinions were divided into two opposites. Some participants favoured weekly sessions to allow regular support and accommodate all member’s schedules. In contrast, other participants considered occasional sessions since the treatments’ side effects decreased the patient’s availability to participate and the travel distance between the patients’ homes and the intervention location.

Regarding the intervention *structure*, participants’ opinions varied also between thematic sessions, unstructured sessions, and psychoeducational sessions. Some participants preferred a specific theme in each session to avoid discussions about non-parenting issues. These participants reinforced the importance of having the opportunity to share experiences according to the session’s theme. A minority of participants preferred unstructured sessions without established themes, as each individual has different worries. However, participants agreed that the therapist should encourage discussing about sensitive issues, even when no one talks about them. Although some issues are important to patients, they tend to avoid discussing these difficult conversations, because they do not feel comfortable talking about them. Concerning psychoeducational sessions, one participant mentioned that it was an important form of support to have information on how to best handle the disease and the family. However, another participant emphasised the importance of balance in providing information and a space for patients to share their experiences.

According to the participants’ experiences during BC, their opinions about the best *timing* for implementing a group intervention varied between after the diagnosis and after ending active oncological treatments. Some participants suggested the group intervention should happen immediately after the BC diagnosis, as this is the period patients need more help. Conversely, other participants believed the group intervention would be more suitable after ending active treatments. The reasons mentioned were: this was the most challenging period; during the treatments, patients need to direct all their energy towards recovery; and only after the end of the treatment do patients feel the emotional effects of this experience.

Finally, participants discussed the best *location* for the group intervention to increase adherence, and these opinions were also divided. Some participants believed hospitals are the best location, as it is where they spend most of their time, it is familiar, and it is a trustworthy source to learn about available psychological interventions. In contrast, other participants believed group interventions are more suited to be carried out closer to their community. Some of the reasons are related to the importance of decentralizing support, the geographic distance of the patients, as avoiding the negative environment conveyed in hospitals.

3.4. Other types of support

During the FG, participants suggested *other types of* support besides group intervention for mothers with BC. Although participants recognized their needs when performing their parental role, they also mentioned the need to *receive* support *in satisfying instrumental needs*, such as financial support and babysitting during treatments. Regarding the need for information and the desire to maintain their privacy, some participants proposed a *reliable website* with helpful information for families with parental cancer. The participants suggested dividing the website into sections with specific information for different audiences. The sections mentioned were for children, parents, non-profit associations’ contact information, and other helpful contacts.

Additionally, participants suggested *interventions for the partners*. The partners face new demands after the BC diagnosis, as they become the primary caregiver and perform both the maternal and paternal roles. Participants highlighted the support is too focused on patients, but the primary caregiver also needs assistance to handle and adapt to their partner’s cancer. In some cases, the difficulties in coping with a partner’s BC led the patients to implement strategies to protect the partner (e.g., suppress their worries).

Finally, participants suggested two types of child-centred support, specifically *group intervention for children* and *working with schools*. Both types of support aim to improve the way children deal with maternal cancer. Most children do not express their feelings in the presence of their parents, especially with the sick mother. For this reason, participants believed a *group intervention for children* would be helpful during the maternal disease. Each group should be organized according to the child’s developmental stage to increase identification with other group members and facilitate expressing experiences, thoughts, and feelings. By participating in the group, children could understand they are not alone and others face the same challenges due to maternal diagnosis.

4. Discussion

This exploratory qualitative study investigated the mothers with BC parental needs and resource needs and involved them in the development of a psychological group intervention. This study also allowed us to identify the real parenting needs regarding the kind of psychological support these women want to receive. To the best of our knowledge, this study is the first to include mothers with BC in developing an intervention for this population to address their parenting needs. With this involvement, we expect to gather knowledge that improves the efficacy and reliability of the intervention in the future (Jagosh et al., 2012; Kieffer et al., 2005). The findings also help psychologists reflect on the several supports needs for families where the mother has BC (e.g., interventions for children and partners).

Regarding the first research question, “What should be targeted in an intervention offered to a mother with BC?” two main targets of the intervention is related to communicating with the children about the mother’s diagnosis and how to deal with children’s reactions. These two themes were essential to include in a psychological intervention program and complemented the literature knowledge (Semple and McCance, 2010; Stiffler et al., 2008; Tavares et al., 2018; Tavares and Matos, 2016; Visser et al., 2004). The way mothers understand their cancer influences their ability to communicate with children regarding BC (Elmberger et al., 2000). For this reason, the FG theme of *Demystify the word cancer* appears to be associated with some difficulties mentioned by participants regarding *Communicating the diagnosis with children*. In some cases, participants feel incapable of talking with children about cancer because they do not always understand what cancer means. All participants of the FG reported never having received any professional support to perform their maternal role during the disease. This lack of support expressed is congruent with some previous studies (Barnes et al., 2002; Ernst et al., 2013; Stiffler et al., 2008; Stinesen-Kollberg et al., 2013; Turner et al., 2007). Sometimes, mothers with BC present difficulties in accepting help from others in the provision of childcare. This difficulty can occur due to social pressure on women, which expects that mothers put children’s needs first (Kim et al., 2012; Mackenzie, 2014). Thus, it appears to be relevant to develop psychological interventions to normalize and raise awareness among mothers about the possibility of asking for support in their children’s education. Additionally, some mothers recognize children hide their worries to protect them (Osborn, 2007). So, in this context, the activation of the social network has greater importance. Having a quality social network appears to be a protective factor in the children’s adjustment to maternal BC (Stefanou et al., 2020).

The second research question, “What are the benefits and challenges of group intervention?”, was answered through the *potential benefits of group intervention*. Some participants recognized this kind of intervention positively affected their children. This perception was congruent with literature on the impact of parent-centred interventions (Inhestern et al., 2016). Studies reported less internalizing and externalizing symptoms in children after their parents with cancer participated in psychosocial interventions (Inhestern et al., 2016). When an intervention improves the mother’s well-being, children are less likely to develop psychopathological symptoms. The risk factor for the children with cancer parents to develop mental problems is often associated with parental emotional suffering (Inhestern et al., 2018; Stefanou et al., 2020; Watson et al., 2006). Most participants of the FG agreed participating in a group intervention focused on parenting would help them. However, some participants believed they did not have the profile to participate in this type of intervention. Some women felt uncomfortable sharing their experiences with others, and other women thought they needed to solve their difficulties alone. Therefore, it is important to adjust the support to the characteristics of each woman. Additionally, in the recruitment process for a group intervention, psychologists should explore the benefits of group intervention with the mother and demystify the worries and possible wrong beliefs. To maintain their privacy, participants suggested developing a reliable website. Recently, Sinclair et al. (2019) reported mothers and health professionals agree that information should be easily accessible. A website could be an easy way for patients to access to relevant information according to their needs. The website should include information the participants identify as essential in a group intervention, such as how to communicate with children. Some mothers reported they needed specific information about the contents and the particular language used according to the age of the children (Sinclair et al., 2019). Thus, developing an intervention program combining a group intervention with online information could cover some generalized parental needs felt by most women facing BC. In Portugal, no website provides parenting-related information during parental cancer.

The third question, “What structure should the group intervention program have to satisfy the parenting needs of mothers with BC?” most participants agreed sessions should happen weekly. The participants suggesting monthly sessions did so because they felt uncomfortable participating in a group intervention or considered this type of intervention unhelpful. A short-term intervention should be sufficient for a psychological intervention focusing only on parenting. A group with 8–10 members allows everyone to share their experiences while promoting productive interactions within the group (Corey, 2010; Spira and Reed, 2003b).

4.1. *Preliminary structure of the psychological group intervention program*

Based on these findings, we propose a psychological intervention (i. e., SIGMA – intervention program for mothers with BC) with two modalities: a face-to-face group intervention (i.e., SIGMA-group) and an online psycho-education intervention (i.e., SIGMA-informs). In both modalities, it seems essential to cover the following contents: communicate with children about maternal cancer; explain the oncological disease; cope with children’s reactions and questions; activate social networks to help in childcare. The intervention should happen after BC diagnosis, but the patient should be able to access the intervention when she needs them most. The use of a semi-structured intervention will address the needs of most mothers. For example, each session has a specific theme, but each participant can express what they want out of the theme. The intervention can be implemented at hospitals and in the community to address all mother’s preferences. According to Strosahl et al. (2012), interventions with a specific issue should be brief. So, we proposed a short-term intervention to address parenting issues in families with maternal BC.

4.2. *Limitations and future directions*

The participants of FG were recruited through a convenient snowball method. Some participants were involved in non-profit associations for oncological patients, and four participants had previously attended group psychological interventions. Some FG participants were intrinsically more motivated to participate in the group sessions. Thus, the findings of the FG must be interpreted with caution and cannot be generalized to the entire population. Other factors may have influenced the discourses of FG participants. For example, six participants knew the moderator of the FG from previous studies and were maybe more comfortable sharing their opinions.

In the future, parents with cancer and psychologists will assess the psychoeducational materials. A pilot study will take place to analyse the reliability and efficacy of a psychological intervention program for satisfying the parenting needs of mothers with BC. Future studies will be conducted to identify for whom the intervention will be more helpful in improving the quality of life of BC patients.

4.3. *Practice implications*

Because we proposed a psychological intervention program that involved the target population in the development process of the intervention, it is expected that adherence of mothers with BC to participate in the intervention and the benefits obtained will be higher than other types of interventions. A website with intervention materials can help current, and future oncological patients who have dependent children adapt to BC. The findings related to *other types of* support present clues on several needs felt by families with mothers with BC. Results contribute to health professionals sustaining the support given to families.

5. Conclusions

Our findings provided specific information concerning the needs of Portuguese mothers with BC in the performance of their parenting role and additional ways to support other family members. The psychological intervention with mothers should allow them to express their feelings and thoughts and provide psycho-educational information. The findings of this study presented promising clues for psychologists answering the parenting needs of mothers with BC.

CRediT authorship contribution statement

Rita Tavares: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Writing – original draft, Visualization, Funding acquisition. **Ana Rita Oliveira:** Formal analysis. **Tânia Brandão:** Conceptualization, Methodology, Validation, Writing – review & editing, Supervision. **Paula Mena Matos:** Conceptualization, Methodology, Writing – review & editing, Supervision, Project administration.

Declaration of competing interest

None declared.

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