Interventions for parents are important during intensive interdisciplinary pain treatment (IIPPT) for youth. Therapeutic art reinforces parent strengths and promotes healthy coping during their child’s treatment. This study measured the feasibility of implementing a published, parent-only group-based therapeutic art intervention in an IIPPT program, delivered by a Certified Child Life Specialist (CCLS) with training in therapeutic art. While their child participated in IIPPT, forty-two parents participated in at least one therapeutic art group. Content rotated through four modules designed to promote reflection on interpersonal relationships, cultivate support, identify values, acknowledge personal struggles and barriers, and increase artistic self-expression (Piech et al., 2015). Following each group, parents completed measures of perceived satisfaction and helpfulness as well as open-ended questions for qualitative analysis. The mixed method design was used to provide depth to the understanding of these parents’ experiences. Supporting feasibility, the full intervention was replicated in a different setting with different providers. Parents attended 69% of sessions, reported little difficulty attending, and reported a high degree of satisfaction, helpfulness, and support. Following each group, parents completed measures of perceived satisfaction and helpfulness as well as open-ended questions. A mixed method design was used to provide depth to the understanding of these parents’ experiences.

Introduction

Chronic pain is surprisingly common in adolescents, affecting 20 to 35% of young people (Friedrichsdorf et al., 2016), often leading to substantial physical, social, and academic impairment (Hoffart & Wallace, 2014). When facing high levels of pain-related disability, youth may participate in intensive interdisciplinary pain treatment (IIPPT), an effective treatment (Hechler et al., 2015) combining physical and/or occupational therapy, medical oversight, psychological intervention, art therapy, and/or music therapy (Hoffart & Wallace, 2014). Interventions for parents are a critical component of IIPPT for youth with chronic pain (Benore et al., 2018). Parent interventions provide specific guidance regarding parents’ responses to their children’s pain (Piech et al., 2018; Sieberg et al., 2017), target problem-solving (Law et al., 2017; Palermo et al., 2014), and allow parents to support each other and promote healthy stress management and coping (Wallace et al., 2016). Though art therapy is often provided to youth in IIPPT programs, it is less common for parents to also receive art therapy.

Currently, art therapy for parents is not commonly offered; however, it may be helpful within the context of IIPPT, given its focus on reinforcing parent strengths, promoting healthy development in children (Shore, 2000), and promoting growth in the parents themselves (Shamri-Zeevi et al., 2017).
Art therapy has been used to support parents of youth with special educational needs (Lee & Peng, 2017) as well as parents of youth facing difficult medical situations (Ciucci & Heffner-Solimeo, 2018). A group-based art therapy intervention has already been developed and trialed for parents of youth in I IPT (Pielech et al., 2013). This intervention includes four modules developed specifically to target perceived needs for parents during their child’s participation in I IPT. For the first module, “Pain journey”, parents create a “visual timeline of their journey since the onset of their child’s pain” (Pielech et al., 2015, p. 217) with goals to promote self-reflection, process loss, and develop hope and acceptance. In a second module, “Social Atom,” parents map out social supports and consider the qualities of those relationships with goals to observe support and foster healthy relationships. In “Invisible Support,” the third module, parents write encouragement in white crayon and engage in a watercolor exercise where messages from other parents appear. This module focuses on support and identifying important values of parents. Finally, in the fourth module, “Letter to Future Self,” parents write a letter to their future self with the goal of exploring fears and experiencing validation and hope (see Pielech et al., 2013, for greater description, goals, list of materials, and sample artwork).

Pielech et. al’s (2013) parent focused intervention trials sought to provide support for parents in a way that allowed them to express emotions and self-reflect while experiencing social support and validation from peers. These groups were led by an art therapist and psychologist, and content rotated through the modules such that parents received all or most modules during their child’s treatment. Participants rated the intervention as acceptable, even for parents without any prior art experience. Parent comments suggested that they perceived benefit from participation.

Present Study

In the present study, Pielech et. al’s (2013) group-based therapeutic art intervention protocol for parents was implemented in a different I IPT setting. For this replication of an established intervention, feasibility was evaluated based on (1) the ability to replicate the intervention in a different setting and led by a Certified Child Life Specialist (CCLS) rather than art therapist, (2) parent attendance and engagement in groups, and (3) parent response to an item asking about difficulty attending groups. Acceptability was evaluated based on parent scores on measures of (1) satisfaction, (2) helpfulness, and (3) perceived support as well as responses to three open-ended questions in these domains.

Method

Participants

The intervention was implemented as standard-of-care, and parents provided informed consent to have their satisfaction questionnaires reviewed for research purposes as part of an IRB-approved study on parent changes during I IPT. Over approximately 15 months, 45 youth participated in an I IPT program at a regional children’s hospital, and a total of 42 parents (88% mothers) participated in parent art groups. For three of the youth, two parents participated either jointly or separately in art groups; for six youth (13%), no parent participated in art groups. Twelve parents (29%) participated in one group, 11 (26%) in two groups, and 19 (45%) in three or more groups.

Procedures

As part of implementation, a CCLS participated in a two-day in-person training by M. Pielech, an Expressive Arts Therapist and Pediatric Psychologist in training who developed the intervention. Other members of the I IPT team (e.g., psychologist, physician, nurse practitioners, physical and occupational therapists, music therapist, and yoga instructor) participated in portions of the training. The intervention included the same content modules as described in the initial publication (Pielech et al., 2015). Groups were led by a CCLS with training in therapeutic art, as this was more feasible within the current hospital and program. While art therapy generally requires a master’s degree, many child life specialists indicate having some training in the therapeutic use of art, and more than 90% in one large survey indicated an interest in receiving additional training (Bandstra et al., 2008). The CCLS in the current study has a degree in expressive arts therapy and has obtained additional training through a two-week clinical practice intensive in the use of therapeutic art in the healthcare setting.

Parent art groups were offered once a week for one hour, scheduled immediately after parents dropped their children off. The groups were held as described by Pielech et al. (2013), and comprised the same four modules: “Pain Journey,” “Social Atom,” “Invisible Support,” and “Letter to Future Self.” For a full description of each module, as well as a list of themes and goals and samples of artwork created during these modules, see Pielech et al. (2013). Parents were asked to complete a measure of satisfaction and helpfulness after each group, as well as open-ended questions for qualitative analysis.

Setting

In addition to parent art groups, parents participated in therapy and education groups led by psychology or social work twice a week for 1 to 1.5 hours and met individually with psychology as needed. Youth participated in I IPT for approximately 40 hours per week, with typical treatment duration ranging from 3 to 5 weeks. Youth received physical and occupational therapy, individual and group counseling, therapeutic art and music, and relaxation and movement-based self-regulation.

Measures

Satisfaction and helpfulness survey. Participants completed a 15-item Satisfaction and Helpfulness Survey adapted from Beardslee’s (1990) measure of treatment helpfulness and feasibility. All items were rated on a Likert scale with anchors of 1 (strongly disagree), 2 (disagree), 3 (unsure), 4 (agree) and 5 (strongly agree). This measure
provides two 5-item subscales (satisfaction and helpfulness), two individual items (feasibility and support), and three open ended questions requesting feedback about the most helpful aspects of the group, suggested changes to the activity, and changes in understanding of art therapy. Internal consistency in the current sample was 0.79 for the Helpfulness subscale and .80 for Satisfaction (calculated using all 98 observations: 0.77 and 0.74, respectively, if using only the 42 observations representing each parent's first data point).

**Participant attendance and engagement.** Each parent’s engagement in groups was measured based on their attendance, on-time arrival, engagement, and ability to complete the project. Immediately after group, the leader (i.e., CCLS) completed the Pittsburgh Rehabilitation Participation Scale (PRPS; Lenze et al., 2004), which prompts a rating for participation ranging from 1 (None: refused to participate) to 6 (Excellent: participated in all exercises with maximal effort). The PRPS has demonstrated high inter-rater reliability as well as good validity (Lenze et al., 2004).

**Group characteristics.** For each group, the number of participants present was recorded (range 1 to 5, ordinal) as well as the module (range 1 to 4, nominal), to allow exploration of factors potentially contributing to satisfaction.

**Data Analysis**

For this mixed-methods study, qualitative and quantitative data were collected in parallel and analyzed separately, with the qualitative data providing additional depth to the understanding of these parents’ experiences. Data analyses were conducted using SPSS version 23. Descriptive statistics, including the mean, standard deviations, ranges, and frequency counts, were calculated for all variables of interest. Internal consistency estimates for the satisfaction/helpfulness survey were calculated and reported above. Responses to open-ended questions were thematically examined across all modules, in aggregate within each item (i.e., not by individual respondent). Analysis first used thematic codes derived from the original intervention manuscript and then, if necessary, identifying additional codes that arose from the data.

**Results**

**Feasibility of parent art groups in IIPT**

Feasibility was first evaluated based on the ability to replicate the intervention in a different setting and led by a CCLS rather than art therapist. This was successful, as with consultation from M. Pieloch, all four modules from the initial study were implemented in their original form and these were appropriate to parents in the program. Groups were conducted during regular program hours, met in an existing location within the IIPT program, and utilized art supplies already available within the program.

Feasibility was next evaluated based on parent attendance and engagement in groups. Of the 45 youth who participated in IIPT during the time window targeted, 39 had at least one parent attend at least one parent art group (87%). Variation in attendance is expected due to different treatment lengths, parents trading off attendance at art groups, and a conflict between “graduation” and art group affecting parents’ final week. After accounting for these conflicts, parents attended group 90 of 131 potential times (69%) during the targeted time window. Parents were on time for 96% of the attended sessions. Engagement was “excellent” for 85% of the observations, with only two parents (2%) ever rated with less than “good” engagement.

Third, 86% of parents disagreed with the statement that it was “difficult to attend this group due to time, schedule conflicts, or other reasons;” indicating most parents had little difficulty attending.

**Acceptability of parent art groups in IIPT**

“I was unsure of it since I have no artistic ability, but it was fun, and I made a great project with so much meaning behind it!!” -participant

Acceptability was evaluated based on parent ratings of (1) satisfaction (mean of 5 items), (2) helpfulness (mean of 5 items), and (3) perceived support (single item). To ease interpretation, a mean score was calculated for the subscales such that the potential range for all scores is 1 to 5, with higher scores indicating greater satisfaction, helpfulness, or perceived support. First, one-way ANOVAs were calculated for each dependent variable, with module included as a between-subjects factor (see Table 1). Results indicate generally high satisfaction, helpfulness, and perceived support, with all mean scores above 4 (max 5). There were no significant differences between modules for satisfaction (F(3)=.71, p>.05), helpfulness (F(3)=1.31, p>.05), or perceived support (F(3)=.32, p>.05).

Second, the number of participants in the group was not significantly correlated with parent ratings of satisfaction (Pearson’s r= -.11, p>.05), helpfulness (r= -.04, p>.05),

**Table 1. Mean and standard deviations for Satisfaction, Helpfulness, and Perceived support by module and for the full sample**

<table>
<thead>
<tr>
<th></th>
<th>Total (N=98)</th>
<th>Pain Journey (n=22)</th>
<th>Social Atom (n=28)</th>
<th>Invisible Support (n=23)</th>
<th>Letter to Future Self (n=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>4.22 (.66)</td>
<td>4.16 (.61)</td>
<td>4.10 (.65)</td>
<td>4.30 (.74)</td>
<td>4.33 (.63)</td>
</tr>
<tr>
<td>Helpfulness</td>
<td>4.05 (.64)</td>
<td>4.15 (.53)</td>
<td>3.89 (.71)</td>
<td>4.01 (.74)</td>
<td>4.19 (.52)</td>
</tr>
<tr>
<td>Perceived support</td>
<td>4.27 (.85)</td>
<td>4.17 (.79)</td>
<td>4.21 (.79)</td>
<td>4.27 (.83)</td>
<td>4.40 (1.00)</td>
</tr>
</tbody>
</table>

**Note:** One-way ANOVA indicated no significant differences between modules for satisfaction (F(3)=.71, p>.05), helpfulness (F(3)=1.31, p>.05), or perceived support (F(3)=.32, p>.05).
or perceived support ($p = .09, p > .05$). Last, parents did not, on average, rate their first group differently than subsequent groups for satisfaction ($t(96) = -.20, p > .05$), helpfulness ($t(96) = -.61, p > .05$), or perceived support ($t(91) = -.80, p > .05$).

Emergent themes in responses to open-ended questions were consistent with those observed in the study which developed these groups (Pielech et al., 2013). More specifically, suggested changes to the group activities were minimal (85.0% of responses [n = 83] indicated they would change "nothing" about the groups). Most helpful aspects of the group centered on characteristics of the shared therapeutic group experience (identified in 41.7% [n = 30] of responses), for example: “Discovering similarities with other parents. Not so ‘alone’”; self-reflective components of the exercises (identified in 30.6% of responses [n = 22], e.g. "trying to focus on me and not [my] child - actually hard to do in this" and "to bring to mind things that you may not always think of or talk about (emotions, etc."); as well as engaging in art making (identified in 22.2% [n = 16] of responses, e.g. "expressing myself in a different way").

Further, parents described shifts in their understanding of therapeutic arts via participation in the group, with most initially feeling unsure of what to expect but then leaving group with a new appreciation for "the value of gaining understanding through creativity." Above all, when parents participate in a therapeutic activity in IİPT that is new to them, such as the parent art groups, they model for youth the kind of healthy risk-taking behaviors that are fostered in IİPT patients. One parent shared: "Never did it [therapeutic art] before or even thought of it. I really liked it. Made me tackle my perfectionism and just do it!"

**Discussion**

Support for parents of youth with chronic pain can improve the course of their child’s treatment (Benore et al., 2018), and art therapy is an excellent modality through which to provide meaningful support (Shore, 2000). This study replicated a therapeutic art intervention (Pielech et al., 2015) for a similar population (parents of youth engaged in IİPT), but in a different hospital, with different staff, and led by a CCLS rather than an art therapist. Further supporting the intervention’s feasibility, 87% of youth had a parent participate in at least one group, and of the parents who participated, 70% participated in more than one group. Groups were scheduled at a time that parents were likely able to attend (immediately after dropping off children to the program), they were generally on time (96%), and few indicated any difficulty attending.

Also of importance, the intervention was acceptable and helpful to parents. Scores for satisfaction and helpfulness were very high across all four modules and without significant differences based on the number of other parents present, nor whether this was their first group or a subsequent art experience (within the program). Meeting one key goal, parents indicated a sense of increased support by participating in the groups and minimal changes were suggested to the art modules by participants.

**Implications**

The process of implementation may be instructive, as training was provided by the art therapist who developed the initial intervention. Following this training, a CCLS who had not been directly trained as an art therapist was able to provide the intervention. Ratings of participants’ satisfaction, and the perceived helpfulness and support from the groups, were almost identical to those in the initial publication on this intervention (Pielech et al., 2015). While art therapy generally requires a master’s degree, there is precedent for application by non-art therapists including a CCLS (Bandstra et al., 2008). As child life specialists are commonly integrated into teams in children’s medical centers (American Academy of Pediatrics (AAP) Committee on Hospital Care, 2021), these allied health providers may represent an option for leading therapeutic art for parents within IİPT teams in other medical centers, with appropriate and ongoing consultation with art therapists or psychologists.

It is important to note that in this replication, the CCLS had a degree in expressive arts therapy and additional training regarding the use of therapeutic art in the healthcare setting. Finally, participants in these groups still identified art making as one of the most helpful components of the groups, suggesting that the value of art making was maintained in the translation and implementation process.

The current intervention is timely, as art therapy is gaining evidence for use in children (Kozlowska & Khan, 2011) and adults (Angheluta & Lee, 2011) with pain and complex medical symptoms. Also, the current intervention is important within the overall framework of IİPT as it does not focus primarily on managing child pain but fosters broader discussions about family functioning. This is rare, with only 16% of interventions for families of children with chronic conditions targeting parent role or family functioning and even fewer of those doing so with parents separate from their children (Knafl et al., 2017). The implementation of parent art groups has not only been helpful to parents’ coping with child pain but has provided valuable opportunities for parents to reflect on family functioning. For example, they bring these thoughts (and sometimes their artwork) into psychology-led parent groups in helpful ways.

**Limitations and Future Directions**

One important limitation to the present study is the lack of formal measures of treatment fidelity, which would improve confidence that the intervention was being delivered as initially tested. Related, this study did not directly investigate potential differences in the integrity of the intervention delivered, nor its acceptability, when being led by a CCLS rather than an art therapist, which is an important consideration. While the ability for these interventions to be delivered by a CCLS may provide flexibility for others attempting a similar expansion, it should be noted that the CCLS involved in this study had specific training in therapeutic art in the healthcare setting and received specific training from the art therapist who delivered the program. Not every CCLS would already have the skills and training...
needed to deliver this intervention, and replication should take this into account.

Future investigations may improve upon this study by incorporating measures of treatment fidelity through a checklist or video-based process. Further studies may also evaluate the clinical effects of these groups by measuring relevant parent changes such as parent stress and social functioning. Additional next steps may be to develop art therapy, individually or in a group format, for youth and parents concurrently, as this is found helpful by many art therapists in practice (Buck et al., 2013). Further research may extend the current treatment by developing and testing additional modules beyond the current focus on self-validation and processing, support and relationships, values identification, and planning for future coping (Pielech et al., 2013). Qualitative research may determine other parent needs, perhaps related to emotion exploration, understanding one’s own health and mental health, or art activities that could continue as expressive coping after program completion.

**Conclusion**

Therapeutic art groups provide a flexible way to increase psychosocial services to parents during their child’s intensive interdisciplinary pain treatment. Parents have found these groups helpful and relatively easy to attend. All hospitals are different, and barriers may exist to implementing this intervention in other settings, including the cost of training or the lack of providers with appropriate training and background. However, considering the wide representation of child life specialists at children's hospitals and data suggesting their interest in receiving training in therapeutic art (e.g., Bandstra et al., 2008), hospitals may be able to follow the model presented in this study. Further extending these results, similar therapeutic art programs may be useful in other environments where youth are receiving intensive treatment, such as children who are hospitalized or children receiving mental health treatment in an intensive outpatient or inpatient setting.

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**Funding/Disclosure/Conflicts of Interest**

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