

Commentary

Pros and cons of social interaction during intensive pediatric pain treatment

Sara E. Williams and Dustin P. Wallace

In pediatric chronic pain treatment, interaction with peers with similar conditions may help children feel less isolated, more encouraged, and motivated to work harder. However, social interaction with peers in a treatment context can also have some detrimental effects, such as strengthening identity as a person with pain and increasing attention to pain. Research has not addressed how to manage these positive and negative aspects of peer interaction inherent in group-based intensive interdisciplinary pediatric pain rehabilitation (IIPPR). In this paper, we review relevant research and describe positive and negative clinical experiences from social interaction in IIPPR. We suggest recommendations for social interactions applicable across treatment settings and highlight broader contextual factors. Overall, peer interaction has the potential to positively impact treatment and enable children to reestablish normal social patterns.

Introduction

“No one understands.” “I wish I could meet someone else who knows what it feels like.” “I’m totally alone.” For clinicians working with children and adolescents experiencing chronic pain, these are examples of the types of sentiments that are commonly heard. Chronic pain, like other pediatric chronic illnesses, causes a disruption in nearly all aspects of children’s lives, including social interaction with healthy peers (Meijer et al., 2000; Kashikar-Zuck et al., 2007). Two reviews of studies examining social interaction among children with chronic pain and physical conditions found that they

engaged in fewer peer activities, did not have as many friends, and were more isolated than healthy peers (Forgeron et al., 2010; Maes et al., 2017). Although group factors have been recognized as important contributors to outcomes in pain rehabilitation settings for decades (e.g. Lawlis et al., 1983), the impact of peer relationships among children working together in a treatment setting remains understudied. Currently, there are approximately a dozen IIPPR programs around the United States and another half dozen internationally (Canada; Europe) that focus on improving function in inpatient or day treatment settings (Hechler et al., 2015). While programs differ in the balance of individual versus group treatment approaches offered, all have a social element in that more than one patient is treated at a time. In this paper, group-based IIPPR programs will be the focus of discussion, where patients interact in the treatment setting. As such, patients are able to meet others with similar conditions; socially, there can be benefits and detriments to this aspect of IIPPR.

Social benefits of peer interaction

Social learning theory offers a platform from which to understand the influences children have on one another in the context of pain treatment, particularly in terms of learning through observation and modeling (Bandura, 1969). At its best, peer interaction in IIPPR may enhance children’s learning of coping skills to improve self-management of pain (Ahola Kohut et al., 2016). Receiving positive attention from peers in the

program has the potential to create a positive association to the activity, which improves engagement in treatment and outcomes (Merlijn et al., 2003). The benefits of children working together in IIPPR can include peer role modeling and mentorship, positively challenging one another to enhance treatment gains, and reestablishing normative peer interaction, as illustrated in the following clinical examples.

Peer role modeling or mentorship may occur when children support one another during challenging aspects of treatment, which often benefit the recipient as well as the mentor (Ahola Kohut et al., 2017). For example, when children work together in physical and occupational therapy group-based sessions in IIPPR, which are core aspects of treatment involving exercise and engagement in activities of daily living. Peer interactions during treatment sessions provide an opportunity for children to support each other through verbal encouragement, offering of coping strategies, friendly competition, or simply giving a high five. In addition, for programs with staggered or rolling admissions, in which children do not all start the program on the same day, positive role modeling can occur when “veteran” patients already enrolled in the program welcome “rookie” patients who are just starting. The new child may benefit from seeing a peer already positively engaged in the program, and the veteran child then benefits by being the “resident expert.”

Children can also benefit from positively challenging one another to advance coping or physical skills. This often happens when children work together to achieve individual or group goals, such as striving for a program record for a physical or coping accomplishment (e.g. fastest time on an exercise, best score on a biofeedback program). In this way, children can engage with one another to focus on a functional gain in a fun and interactive manner. Similarly, this type of social milieu may offer an opportunity for children to work on therapeutic goals relating to social interaction, such as improving baseline social skills or engaging in social exposures to address anxiety. This can be particularly salient for children with comorbid psychological disorders, as sometimes disability due to pain provides secondary gain in allowing

children to avoid difficult situations. Breaking such cycles with positive peer support has the potential to be a successful way for children to establish new, functional patterns of interaction. Perhaps the most meaningful social benefit of group-based IIPPR is when children reestablish normative peer interactions. For some children, particularly those who have been out of school, this can be accomplished simply through interacting with peers during the day. Reintroducing physical activity with peers within the program can help children who have counted themselves out of social or sporting events due to pain. Taking children on community outings together, such as going to a park or eating a meal, offers the chance to reestablish normal activities in a safe and supportive manner. Finally, either on their own or through facilitated group intervention, children may benefit from discussing their experiences (Goldenberg et al., 2013). First and foremost, supportive peer discussion can allow children to feel normal by recognizing shared experiences of pain and disability, allowing them to feel understood by others with similar stories. In addition, and perhaps most importantly, positive peer interaction with other patients can give children a chance to just be a kid by engaging in typical conversations about new functional experiences and rediscovered areas of identity.

Potential detriments of peer interaction

Although there are positive aspects of social interaction inherent to IIPPR, there are also potential drawbacks. As noted, some teens with chronic pain experience poor social relationships and may have lost confidence in their competence and self-worth. Relatedly, children with pain are vulnerable to identifying with a sick role (Walker et al., 2002), and when around others facing the same struggle, it is easy to connect through health issues. While this co-rumination can lead to closer relationships (e.g. Rose, 2002), it may also create interactions based on health, which maintain a focus on symptoms rather than promoting function. Moreover, when symptoms are discussed openly, a pattern of competing or one-upping regarding symptoms may develop, which can lead to peer contagion, causing kids to become more symptomatic and impaired (Dishion & Tipsord,

2011). In addition to these relationship factors, chronic pain can be worsened by fear of pain and attention to pain (Vlaeyen & Linton, 2000; Simons et al., 2011). Social interactions (such as parent responses) may also affect attention to pain, thereby increasing pain (Walker et al., 2006; Caes et al., 2012; Logan et al., 2012). Thus, key concerns of peer interaction about pain relate to increased attention to pain itself and the sense of pain as important to identity, which are known to contribute to maintenance of symptoms and disability (e.g. Glattacker et al., 2010; Edwards et al., 2016).

During IIPPR, these negative aspects of social interaction have been clinically observed. Children sometimes focus on health symptoms that they observe in others, such that a child observing another with headache or nausea may begin to focus on their own challenges, resulting in complaints of their own symptoms. Further, when pain becomes an aspect of teens' identity, resolution becomes harder. It is common for children in IIPPR to have felt misunderstood by healthy peers, experienced disbelief by others about their condition, or even ostracized due to symptoms. When finally met with acceptance and understanding by teens going through similar experiences, relationships are sometimes cemented within hours. Even when these relationships bloom into genuine friendships, they may retain some aspect of the shared experience (pain) that initially joined them. Unfortunately, without guidance to avoid this pitfall or experiences to promote new areas of identity, the shared experience can influence ongoing interactions in a way that maintains pain as important, which further promotes symptoms and disability.

Recommendations for promoting positive social interaction

When caring for patients with chronic pain, it is increasingly recognized that a focus on health rather than pain or disability contributes most positively to function and symptom improvement (Verbunt et al., 2009). This is the approach in IIPPR, where treatment focuses on restoring function, including normal social function. Given the potential benefits and drawbacks of social interaction, pediatric pain treatment must include specific training for children to provide and receive

positive peer support and to learn how to socially interact about experiences other than pain. Several recommendations are shared below. The appendix contains additional guidelines and treatment recommendations.

In the context of IIPPR, it is helpful to provide direct instruction to participants on how to structure friendships and interact with peers both in the program and after discharge. During treatment, it can be helpful for providers to foster positive relationships by encouraging children to mentor or connect with one another when the opportunity exists and is appropriate (e.g. encouraging a "veteran" patient to greet and encourage a new patient just beginning the program). Providing social guidelines for interaction in the program can also be helpful, such as encouraging children to share two good things for every one challenge that they discuss. In preparing children for discharge, other instructions could prove helpful to continue positive social relationships, such as one author's guideline of having fifty friends without pain for every one with pain. Sharing these guidelines with children and families helps to communicate the importance of balancing the role of pain in friendships.

In addition, it can be helpful for programs to create formal rules of engagement for interactions among patients and families that help them focus on function and not pain. These program rules are recommended to be listed and discussed explicitly, as well as demonstrated through modeling by treatment staff or role-playing among patients. Individually, children should participate in therapies geared toward developing values and identity, including reclaiming areas of their lives that used to be important, engaging in normative social interactions with healthy peers, and developing new interests. Scripts can be developed to communicate with healthy peers and family regarding pain and treatment. Group interactions offer a particularly effective format in which to practice scripts along with other social interaction skills. This type of practice with peers in the program can help children overcome potential social barriers after discharge from IIPPR.

Conclusion

Pain motivates relationships by stimulating empathy in others (Bastian et al., 2014), in line with the general human desire to feel connected and understood. It is natural to attend to those who are ill and gravitate towards others with similar conditions to gain support. However, these natural responses can sometimes backfire for children with chronic pain, at best not helping them and at worst maintaining symptoms and disability. Creating a social environment that understands, validates, and allows children with chronic pain to improve their lives by focusing on function rather than symptoms promotes a self-image of wellness instead of sickness. This process can start in IIPPR and similar treatment settings by empowering young people and their families to become aware of social influences and practice positive, normative interactions in safe spaces. Treatment providers should recognize both beneficial and detrimental aspects of peer interactions as a way to observe and understand the role of pain and social interaction for their patients

that can inform treatment goals and interventions to enhance outcomes. Lessons learned and practiced within these clinical settings can give children the information and confidence to communicate with those in their extended families, schools, and communities. By fostering positive social interaction during treatment, children have the potential to leave pain treatment settings more prepared to achieve their immediate and long-term functional goals.

Sara E. Williams, PhD
Division of Behavioral Medicine & Clinical Psychology, Cincinnati Children's Hospital and Department of Pediatrics, University of Cincinnati Medical Center, Cincinnati, OH, USA
email: sara.williams@cchmc.org

Dustin P. Wallace, PhD
Children's Mercy Hospital and Department of Pediatrics, University of Missouri Kansas City School of Medicine, Kansas City, MO, USA

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Appendix A: Examples for IPPR program rules of engagement**Example 1:**

These rules describe the way we manage chronic pain and help you regain function. This approach can help you make a commitment to yourself, your health, and your team that will allow you to get the most out of your treatment:

1. Keep the focus on function

Notice the things that are going well for you, work hard toward making small gains every day, and keep a positive attitude. No talk about pain!

2. Good communication

Limit texting or talking on the phone during treatment day to focus on function. Practice independent communication skills by talking about any concerns that arise directly with staff. Understand that we are listening even if we do not spend a lot of time talking about concerns. Do not post pictures on social media that include anyone else and do not tag other patients by name.

3. Have some fun

Anytime you have a break during the treatment day or in the evening, do something! Talk to a friend about common interests, activities, or hobbies.

If you have any questions about these rules or the functional approach, talk to any member of your treatment team and they can help you!

Example 2:

1. Don't say "I can't"
2. No talk about pain
3. Do talk about your emotions
4. Do talk about topics other than pain or health
5. No phones in the treatment area
6. No dating others in the program
7. Ask staff directly about any concerns
8. Notice the things that are going well, including your accomplishments in the program
9. Have some fun and talk about your interests and activities

Appendix B: Example scripts for peer communication with friends and family

Example 1: Appropriate for most social situations (e.g. classmates, neighborhood friends, community members)

My doctors figured out that I have chronic pain because my nerves are sending too many pain signals to my brain. It is not contagious. The treatment is really hard work, with lots of physical therapy and stuff, but I'm getting better. Are you going to the football game tomorrow? [Help children learn to change the subject by asking a question at the end of their script]

Example 2: Appropriate for social situations that require a more in-depth explanation (e.g. close friends, immediate family)

I have a chronic pain syndrome. This means I have real pain, but is the result of my nerves firing too much and not because I have an injury or disease. The pain is constant and usual treatments, like medication, heat/cold pack, or even rest, does not help this type of pain. People with chronic pain miss out on important things due to pain, which makes it very frustrating and stressful to deal with. Even though it feels like the last thing you want to do when you are in pain, improving your strength, coping, and ability to everyday things, are the first steps in overcoming chronic pain.

When people aren't getting better at home, that's when it's time to go to an intensive interdisciplinary pediatric pain rehabilitation (IIPPR) program where you do therapies on a non-stop schedule every day. Physical functioning improves during the admission, but it can take longer for the pain to get better. As you may know, I recently participated in an IIPPR program. I worked very hard and noticed big changes in my function. Now that I am home, I am not completely pain free, but I am much stronger and can do everyday things again. I will have to stay as active as I can to stay strong and focus on the positive things I can do. The most important thing for me and my family to remember is that pain is not in charge of me. I am in charge of me!

How can you help me?

- Don't ask me whether or not I am in pain—it helps me to focus on something else besides the pain!
- Encourage me to be active and ask to do things with me!
- Talk to me about normal things—the more I'm able to focus on regular, fun activities, the better!
- Just be there for me. Thank you for understanding.