

Commentary

Parent involvement in pediatric pain interventions

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Introduction

The impact of parent factors on children's pain-related distress and disability is well documented (Palermo & Eccleston, 2009). Researchers have addressed this by intervening directly with parents and families. However, in a meta-analytic review of randomized controlled trials (RCTs) of parent- and family-based interventions for children with chronic conditions, Law et al. (2014) found that psychological therapies had a positive effect on parent behavior, but no effect on child mental health, disability or family functioning. The review by Eccleston et al. (2015) focused specifically on pediatric pain and reviewed studies targeting parents; these interventions had no lasting effects on children, apart from transient improvements in pain symptoms that were not sustained. However, some of the parenting interventions studied (often Problem Solving Therapy [PST] in the field of pediatric pain) were clearly beneficial for parental mental health and behavior, which is a legitimate treatment target in its own right.

The lack of positive outcomes on child pain behaviors for parent-focused intervention stands in contrast to a large body of cross-sectional and longitudinal research indicating that parent factors, particularly mental health, can significantly impact child distress and disability (Logan & Scharff, 2005; Palermo et al., 2007). Anecdotally, clinicians would regard parent involvement in treatment as important in many cases. Thus, parent factors seem clearly important, yet there is currently no evidence-based guidance on how to enhance child outcomes with parent intervention. In response to this apparent

disconnect between clinical experience and the existing published evidence base, this paper examines clinical decision-making related to parent involvement and its relationship to the developmental context.

Many interventions that include parents aim to teach more adaptive parental responses to children's pain. Often parents are used as co-therapists in the hope that they will facilitate the transfer and maintenance of new pain management skills to the child's home environment. This is clearly desirable, but not all parents have adequate personal and emotional resources to be effective in this role. Many parents could benefit from interventions that address their own maladaptive behaviors which contribute to their child's distress and disability. In such cases, parents may best be conceptualized initially as co-patients. There are also situations which warrant concurrent but independent child and parent treatments. These variable starting points may be a factor that has contributed to the lack of consistent positive outcomes for manualized parent-focused pediatric pain interventions. Below, we recommend ways to assess which level and type of parent involvement might be most appropriate.

In assessing parent involvement, the following factors should be considered: 1) if it is appropriate to include the parent in treatment at all; 2) if there are parent behaviors within the child/parent relationship that need to be addressed; and 3) in what capacity the parent will be involved. Centrally, clinicians must establish whether parents can support their child as a co-therapist or whether they would benefit from their own treatment as a co-

patient. We review important factors in this decision-making below.

Age and developmental stage of child

Palermo and colleagues (Palermo et al., 2009; Palermo et al., 2014b) have emphasized the importance of developmental stage in relation to interventions for pediatric chronic pain. Operant and social learning theories suggest that children's pain behavior can be reinforced by their parent's reaction. Therefore younger children, who are likely to remain in their parents' care for a significant period of time, are particularly likely to benefit from alterations in parenting behavior. On a practical level, younger children may lack the self-awareness needed to achieve independent self-managed behavior change without the support of their parents.

Adolescence involves a time of progressively greater autonomy and decreased parental input (Erikson, 1964). Most adolescents will still benefit from parental involvement with their chronic pain management. However, older adolescents on the cusp of leaving home and living independently may benefit from interventions that do not include parents or that aim to support parents to achieve a constructive but more distanced role that does not inhibit the adolescent's self-management. Low levels of child autonomy and subsequent reliance on parents has been associated with greater levels of disability and depression in young people with pain (Lewandowski & Palermo, 2009).

Family-focused teamwork interventions may be useful to explore in the context of encouraging self-management of adolescent chronic pain. Previous teamwork intervention research has targeted families of children with chronic conditions including asthma and diabetes (Laffel et al., 2003; Duncan et al., 2013); these studies focused on enhancing parent and child communication, and progressively increasing childhood independence. Such interventions have shown decreased levels of conflict and improved medication adherence (Duncan et al., 2013).

Parent behavior

Parents' reactions to their child's pain can have a significant effect on physical and

psychological well-being. For example, parents who catastrophize about their child's pain are more likely to have children with higher levels of functional disability (Goubert et al., 2006; Caes et al., 2012). The impact of solicitous parental behavior, which involves increased attention to the child's pain and granting permission to avoid school or other activities in order to minimize distress, is thought to negatively affect children's psychosocial development as well as their physical functioning. (Peterson & Palermo, 2004; Forgeron et al., 2010). Negative parental responses, which include critical and dismissive reactions, have been associated with symptom maintenance, particularly in children with low perceived self-worth (Walker et al., 2002). Minimizing responses may cause emotional and psychological distress which may lead to an increase in somatic symptoms (Kerns et al., 1991).

These behaviors have the potential to undermine a child's treatment. Clinicians can best identify problematic parental behaviors by observing parents and children together. Where these behaviors are observed, it may be necessary to address them before expecting parents to function as co-therapists in their child's treatment. Previous studies which target these behaviors have yielded promising results. Levy et al. (2010) used a child and parent cognitive behavioral therapy (CBT) intervention to address solicitous parental behavior and teach child coping skills. Results indicated a significant decrease in both parent- and child-reported symptom severity. Problem solving therapy (PST) has also shown promising results in this area. Palermo et al. (2014a) adapted PST for parents of children with chronic pain and found that parental catastrophizing, maladaptive and miscarried helping responses significantly declined post-treatment.

Parent mental health

Many parents of children with chronic pain have clinically significant levels of anxiety and depression (Eccleston et al., 2004). Palermo et al. (2014a) discuss how parental emotional functioning can influence the child's experience and response to pain. Interventions that target the mental health of parents of children with chronic pain have been explored (Palermo et al., 2014a). Most recently

Palermo et al. (in press) conducted a pilot RCT of problem-solving skills training for parents of children with chronic pain. The study found improvements in parent pain catastrophizing, depression and mental health as well as child depression, general anxiety and pain anxiety (Palermo et al., in press).

Significant parent mental health problems which appear unrelated to child pain status (e.g. those that pre-date the child's pain condition) may need to be addressed by the clinician. Where mental health problems are severe, parents are unlikely to function as an effective co-therapist and may not be able to focus on modification of their parenting styles during treatment. In these cases clinicians may refer the parent to specialist mental health services and set their engagement with this treatment as a prerequisite for being included in their child's pain management intervention. Where the parent refuses the referral or does not engage, child protection issues should be considered. In these cases, clinicians may work with the child independently or include an alternative family member.

Readiness to change

Psychosocial interventions depend on the willingness of patients to change their behavior. Guite et al. (2011) found that parents showed a greater understanding of the biopsychosocial model of pain and were more likely to appreciate psychologically-based treatment compared to adolescents (Guite et al., 2011; Guite et al., 2014). Additionally Guite et al. (2014) discovered that greater levels of parent catastrophizing were related to less readiness to change in parents and lower levels of pain catastrophizing was related to greater readiness to change in adolescents. These findings underscore the importance of increasing readiness to adopt a self-management approach to pain in both the parent and child.

In some cases, clinicians might observe that the parent is more willing to engage with treatment than the child. Guite et al. (2014) found that significantly more parents than children were willing to pursue multidisciplinary pain management and suggested that an awareness of the psychological factors involved with chronic pain

require a developmentally advanced level of understanding which might not yet be established in some children. In this scenario, the clinician must judge whether there is sufficient willingness on the child's part for treatment to be helpful. Where a child is evidently unwilling, the clinician should consider treating the parent alone, focusing on addressing maladaptive parental behaviors and including training in skills such as communication, problem-solving and operant strategies. Where a child is willing to engage in treatment, but a parent is not, it may be most beneficial to work most directly with the child, with separate efforts to enhance parental readiness through techniques such as motivational interviewing. Several recent books target parents of children with chronic pain and can be helpful in reinforcing a framework that underscores the importance of parents adopting a self-management approach to their child's pain (Palermo & Law, 2015; Coakley, 2016). If this disconnect between child and parent willingness appears highly refractory to change and begins to undermine the child's condition, this may call for efforts to connect to further resources for the parent.

Conclusion

Parental involvement can be an important aspect of pediatric chronic pain interventions. In order to ensure the most effective method of treatment is used, clinicians must undertake a thorough joint assessment of both the child and the parent. The assessment should include a focus on parental pain responses, mental health and both parties' willingness to engage, as well as the child's developmental stage. Based on this, clinicians must decide whether it is appropriate to include the parent and if so, whether they will take on the role of co-therapist, co-patient, or independent patient at various stages of the child's treatment.

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