

## COMMENTARY

### Acceptance and Commitment Therapy in the Rehabilitation of a Girl With Chronic Idiopathic Pain: Are We Breaking New Ground?

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*Wicksell and colleagues (2005) addressed the important and currently understudied realm of chronic idiopathic musculoskeletal pain treatment in children. They presented a brief overview of empirically supported treatments for children with chronic pain, detailed their case and intervention strategy, and offered conclusions regarding the potential efficacy and effectiveness of Acceptance and Commitment Therapy (ACT) for childhood chronic idiopathic musculoskeletal pain. Our commentary is divided into several sections. We begin by providing an overview and critique for each of the case conceptualization and the intervention strategy presented. This is followed by a brief discussion of whether or not Wicksell et al.'s ACT approach is fundamentally distinct from more traditional cognitive-behavior therapy (CBT) techniques. We also consider potential mechanisms of action and suggest future research directions needed to establish empirically supported treatments for chronic idiopathic pain in children.*

#### Case Overview and Critique

Wicksell and colleagues (2005) described their patient as a 14-year-old adolescent female who was living at home with her parents and a younger brother. She was referred to the Pain Treatment Service from a pediatric rheumatology clinic where she first attended for assessment of her symptoms given a family history of childhood-onset rheumatoid arthritis. Her medical history included a borrelia infection (i.e., Lyme disease) in 1997, an ear operation in 1999, and asthma of an unspecified duration or severity. She was otherwise seemingly healthy prior to the onset of her stiffness and joint pain, which began approximately 1 month after routine vaccination for measles, parotitis, and rubella in 2000. During the following year she underwent a variety of tests, none of which revealed objective findings indicative of an organic basis for her symptoms. Pharmacotherapy had no significant effect. After several weeks of pretreatment monitoring, Wicksell and colleagues conducted a detailed assessment of functional ability, value-based goals, school attendance, coping, depression, parental reinforcement of illness behavior, and pain intensity.

The patient reported experiencing joint pain that had persisted for approximately three years, was located in both upper and lower extremities, was constant in some joints while intermittent in others, and was more severe in the morning and evening. She also reported experiencing a

number of other symptom presentations that were attributed to stress, including “migraine-type” headaches of unspecified severity that persisted for up to a week at a time, sleep difficulties and fatigue, and panic attacks. Specific information regarding the onset of these symptoms relative to the joint pain is not provided; however, based on the information provided, these appear to be secondary to the stiffness and pain. School-related, recreational, and home functioning was severely limited and solicitous behaviors on the part of family members had negatively affected the functioning of the entire family.

Our opinion—one that we have stated in prior commentaries (Asmundson & Hadjistavropoulos, 2004, 2006) and elsewhere (Taylor & Asmundson, 2004)—is that assessment and case conceptualization should be conceptually driven. This, in essence, places empirically supported theoretical constructs and applications at the base of any decisions regarding assessment, case formulation, and treatment planning. However, in underdeveloped and understudied areas, such as chronic idiopathic musculoskeletal pain in children, the clinician can be significantly challenged in this regard. Development of theory that is specific to the presenting case may be limited. Research on assessment and treatment may be scant. The process is further complicated when, as in the present case, there are multiple presenting symptoms that may or may not be conceptually related.

#### Assessment

The case description of Wicksell and colleagues (2005) provided a fairly detailed overview of the pain—including its location, intensity, frequency, duration, consequences,

exacerbators and ameliorators, and emotional sequelae—experienced by this patient, as well as her treatment history. However, additional symptom and contextual information essential in formulating a comprehensive picture of the patient was not provided. Pre- and posttreatment measures of general anxiety, fear of pain, and panic symptoms and frequency would have been valuable. With regard to context, we would benefit from details on how she presented in the assessment (e.g., outgoing versus shy, passive versus active, resistant versus compliant, open versus closed, anxious versus calm, conscientious versus lackadaisical). Did she demonstrate pain behavior overtly? Did her presentation change over time with therapy? Notable information was also omitted with respect to family relationships. Indeed, little information was provided about her parents and her younger brother (e.g., age, occupations, health history, psychiatric history) beyond indications that they were solicitous toward her. What was the nature of her relationships with her parents? How about her brother? Likewise, we know little about her school performance and personal attributes. What type of a student was she? Were there certain subjects she found difficult? Did she have any learning difficulties or behavioral problems in school? What are her personal strengths and weaknesses? Where is she in terms of stages of development (e.g., individuation from parents, sexual development)?

We recognize that there are limits to what detail can be provided in a case example; however, this type of information is important to fully understand the applicability of ACT to other adolescents with chronic idiopathic pain. Given that this information is not reported, our assumption is that there is nothing notable about this adolescent and her family. Our question, then, is would this approach be equally effective with other adolescents, such as a surly adolescent or child from a dysfunctional family background?

### Focus for Treatment

An immediate challenge in this case is determining the symptoms on which to focus intervention efforts. Was chronic idiopathic musculoskeletal pain the correct point of focus? In addition to pain and stiffness, the patient presented with headaches—possibly migraines—that lasted for up to a week at a time, she was not sleeping well, she was fatigued, and experiencing panic attacks. Why not direct intervention efforts on one or more of these? As noted above, the information provided by [Wicksell and colleagues \(2005\)](#) suggest that these symptom presentations are all secondary to the stress of her unremitting stiffness and pain. While efforts might have been directed toward provision of either nonspecific (i.e., behavioral stress management) or specific (e.g., interoceptive exposure) strategies for managing stress, we

generally agree with Wicksell and colleagues' decision to address the musculoskeletal stiffness and pain. Based on the assessment information provided, it appears to be primary.

This said, we do have some outstanding questions specific to the patient's reported borrelia infection. Although the infection is noted, there is no indication of the course or treatment of the patient's Lyme disease. Why is this important? The joint stiffness and pain reported by the patient is consistent with cases of chronic polyarthritis that, while rare, have been documented in patients with borrelia infection ([Rahn, 1991](#); [Steere, 1995](#)). Polyarthritis usually develops in the absence of antibiotic treatment ([Shadick et al., 1994](#)), although some people develop manifestations of Lyme arthritis even when treated (see [Limbach et al., 2001](#), for discussion of treatment-resistant Lyme arthritis). Wicksell and colleagues indicate that blood tests for the HLA-B27 antigen and inflammatory parameters were negative. This suggests absence of arthritis; however, Lyme arthritis can manifest despite negative tests for rheumatoid factor (see [Renaud, Cachin, & Gerster, 2004](#)). Borrelia infection can also trigger persistent nonarthritic joint and muscle pain and fatigue ([Renaud et al., 2004](#); [Szer, Taylor, & Steere, 1991](#)) as well as fibromyalgia ([Steere, 1995](#)) in a small percentage of people.

Given these considerations, combined with observations that it is not uncommon for children with borrelia infection to remain untreated for years ([Szer et al., 1991](#)), we remain curious as to the nature and extent of treatment, if any, that the patient received for her infection. It is possible that this infection served as the trigger for the patient's symptoms and, if untreated, may be a contributing factor to their maintenance. We wonder whether this might remain an unexplored avenue for potential and effective relief for her symptoms. If appropriate antibiotic treatment of the infection was provided, and if there is evidence of successful outcome, we might then wonder whether juvenile fibromyalgia (for review, see [Kashikar-Zuck, Vaught, Goldschneider, Graham, & Miller, 2002](#)) was considered as a differential diagnosis and potential avenue for intervention.

Notwithstanding these considerations, the components of the ACT intervention employed by [Wicksell and colleagues \(2005\)](#) were highlighted and, to a reasonable degree, placed within a conceptual framework. With regard to the latter, Wicksell and colleagues devote several pages to describing the theoretical basis for their approach, specifying several models of chronic pain as well as functional contextualism. They also mention several studies, of which there are now more (e.g., [McCracken & Eccleston, 2005](#)), supporting the clinical effectiveness of the ACT approach. It is likely that therapists interested in adopting their approach for

adolescents presenting with chronic idiopathic pain would comprehend the techniques (e.g., values assessment, shifting of perspective, exposure, acceptance and defusion, parental coaching) as described. Indeed, Wicksell and colleagues highlight a number of important adaptations that were made to their application of ACT to ensure that it was age appropriate. These adaptations included, for example, adjustments with regard to language, repetition of important topics, concrete discussions of values and fusion, selection of case-specific metaphors, and parental involvement. It is unfortunate, however, that they make some misleading assertions with regard to the focus of a viable and empirically supported alternative to their approach—in vivo exposure to feared pain-related activities. Contrary to the suggestion that the main focus of this approach is on pain reduction, it is, instead, on decreasing pain-related fears and improving function. Interestingly, exposure is a major strategy in their approach to intervention. We touch on this issue in more detail below.

It is in the area of the process of intervention that we would have appreciated further information. How would the authors characterize the therapist's interpersonal style? It was noted that the physician and psychologist were trained in ACT. What did this training involve? What sequence did the therapy take? Were there any notable therapeutic moments? What were the low moments or therapeutic challenges with this client? With any client, there are aspects of therapy that prove challenging. What were these? Did any ethical issues emerge in therapy, especially when the parents were seen alone? As noted above, we recognize that there are limits to what detail can be provided in a case example; but, again, this type of information would be useful when trying to make conclusions about the potential applicability of ACT to other adolescents with chronic idiopathic pain.

### Is ACT Unique?

Wicksell and colleagues (2005) emphasize that what is unique about ACT, compared to CBT, is the emphasis on values, a focus on acceptance versus control or change of cognitions, and attention to achieving goals in spite of negative emotions and cognitions. Future research efforts are required to determine the extent to which ACT and CBT are different in practice. Does CBT not typically focus on assisting patients with what is valued? Perhaps what ACT does is make the focus on values explicit, rather than implicit, and thereby increases patient acceptance of therapy. This remains to be determined.

In CBT, we often ask the question “So what?” For instance, “So what if you feel anxious, can you not still proceed with life?” “So what if you have pain, can you

not still find enjoyment?” Is this fundamentally different than helping a patient to recognize or accept that negative emotions and thoughts are a component of the human experience, and that one can act differently even in the face of upsetting emotions? Again, perhaps what ACT has done is improve the palatability of this question. Wicksell and colleagues also highlight that exposure—a core component of CBT—is used in ACT but in a manner fundamentally different from CBT. They report that graded hierarchies or behavioral experiments are not used in ACT. We agree with their assertion that the conceptual similarities and differences between typical exposure and the exposure used in ACT need to be further explored.

### Mechanisms of Improvement

As apparent from the above discussion, we agree with Wicksell and colleagues (2005) that ACT merits further research. In this context we find the question of mechanisms of change to be particularly compelling. Wicksell and colleagues tentatively suggest that the potential mechanism for improvement was that “the use of values and acceptance strategies contributed to the decrease in emotion-based avoidance and subsequently to the improvements seen following therapy in pain and disability” (p. 421). They raise an interesting possibility that can only be addressed by further research. We question their hypothesis, however, given that scores on the emotion-focused strategies appear to have been low both prior to and after therapy (e.g., on a 1 to 5 scale the score changed from 2.2 to 1.1).

What other variables might account for change exhibited by this patient? One could postulate that it was the basic components of the therapeutic process that contributed to change. For instance, the therapy appears to have involved a warm and kind therapist who empathized with the patient, thereby allowing her to express her feelings and set and monitor goals. This would be consistent with adult literature showing that the quality of a therapist-client alliance predicts improvement in client outcomes (e.g., Martin, Garske, & Davis, 2000), and expressing emotions in therapy is associated with progress (Greenberg & Malcolm, 2002).

Another hypothesis about mechanism of change may be that the intervention modified the family dynamics and parental response to the child. Wicksell and colleagues met with the parents and focused on “how to coach their daughter toward her values rather than toward symptom reduction.” They describe assisting the parents with their own emotional difficulties and avoidance. Perhaps it is the change in the parents or family functioning that is responsible for the change observed in the adolescent. Contradicting this mechanism, however, is that the low scores on the Illness

Behaviour Encouragement Scale were obtained both prior to and after therapy.

It is likewise possible that there was a change or shift in the pain-related beliefs held by the patient that occurred with therapy. Although the patient was encouraged to accept (as opposed to control or challenge) her cognitions about pain, it remains possible that it was a change in thinking over time ("I can't do that" changed to "I am in pain, but I can still do that") that resulted in improvement. A reduction in pain-related fear via standard exposure to activities that were desired but avoided (likely due to fear of increased pain) could also be at the heart of the improvement. The authors report that they used a gradual exposure aimed at increasing behavior. Research with adults suggests that graded in vivo exposure to feared pain-related activities is accompanied by reduction in pain-related fear and anxiety and improvement in functioning (e.g., Vlaeyen, De Jong, Geilen, Heuts, & Breukelen, 2002). Although not a direct target of this type of graded in vivo exposure (and contrary to the assertions of Wicksell and colleagues), it is also effective in reducing levels of reported pain.

Ultimately, in order to understand potential mechanisms of change, future research will need to systematically assess the gamut of variables that may underlie improvement. This might include measuring the therapeutic alliance, family functioning, pain-related beliefs, and pain-related anxiety. With respect to ACT, measurement of pain acceptance and commitment (perhaps using the Pain Stages of Change Questionnaire; McCracken & Eccleston, 2005) would also prove valuable to test theory regarding change.

### Conclusion

Wicksell and colleagues (2005) present an interesting case of an adolescent girl with chronic idiopathic pain who appears to have benefited from an ACT-based approach. In an understudied area such as this, the authors make a reasonable case for the application of ACT as a means of intervention for adolescents with chronic idiopathic pain. We strongly encourage this avenue of investigation. Based on the issues discussed above, it is our opinion that, while encouraging, it would be premature to conclude that an ACT-based intervention like the one used by Wicksell and colleagues will be as effective with other adolescents presenting with idiopathic pain. This is consistent with Wicksell and colleagues' caution with regard to their conclusions and their suggestions for further empirical scrutiny. Perhaps inconsistent with their position, we are not convinced that we are breaking new ground with ACT

approaches for chronic pain and, pending results of forthcoming research on processes and mechanisms, remain of the opinion that we may not be breaking new ground but simply applying new labels to existing approaches.

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