Somatic Symptom Disorder, Conversion Disorder, and Chronic Pain: Pediatric Clinician Perspectives

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Abstract

Objectives: The appropriateness and relevance of Somatic Symptom Disorder and Conversion Disorder (*Diagnostic and statistical manual of mental disorders: DSM-5™, 5th ed, 2013*) diagnoses are in question as they relate to pediatric chronic pain. This survey-based study on pediatric chronic pain explores how these psychiatric diagnoses are made and perceived, and how treatment of patients is approached by Canadian healthcare professionals working in pediatric chronic pain clinics.

Methods: Fifty healthcare professionals completed the survey, which contained both qualitative and quantitative items.

Results: Eighty-eight percent of participants reported moderate/advanced training in pain, whereas only 26% reported moderate/advanced training in Somatic Symptom Disorder and Conversion Disorder. Somatic Symptom Disorder and Conversion Disorder were reportedly diagnosed in approximately 17% and 5% of young people with chronic pain, respectively; however overall, the participants were ‘not confident’ or only ‘slightly confident’ when diagnosing these disorders. There were no major differences in the reported interventions used to treat pain, Somatic Symptom Disorder, or Conversion Disorder.

Discussion: These results highlight the need for standardized training in pain and psychiatric assessment, diagnosis and treatment; diagnostic guidelines; and how to best provide this training to healthcare staff who work with young people with chronic pain.

Key words: *Somatic Symptom Disorder, Conversion Disorder, Pediatrics, Chronic Pain,*

Implications for Impact Statement: These results raise questions about the conceptualization of chronic pain, Somatic Symptom Disorder, and Conversion Disorder, and point to the need for further research, improved training, clearer differential diagnostic criteria, and effective treatments.

Introduction

Chronic pain is typically defined as pain that persists for longer than 3 months (Treede et al., 2019; Treede et al., 2015). Median lifetime prevalence rates in youth range from 11 to 38% (King et al., 2011) with about 5% reporting moderate-to-severe disability including disruption of school attendance, sleep, and overall quality of life (Gauntlett-Gilbert & Eccleston, 2007; Gold, Mahrer, Yee, & Palermo, 2009). The biopsychosocial model (Turk, 1996) is widely accepted in understanding how pain becomes chronic and disabling. The model posits that biological (e.g. neurophysiological changes in the central nervous system), psychological (e.g. anxiety, mood, coping), and social (e.g. family environment, social learning) factors interact to impact pain (Riddell, Racine, Craig, & Campbell, 2013).

Notwithstanding the importance of the biopsychosocial model, the best way to categorize, label, and classify chronic pain remains controversial (Scholz et al., 2019; Williams & Zahka, 2017). In psychiatry, Somatic Symptom and related disorders (*Diagnostic and statistical manual of mental disorders: DSM-5™, 5th ed*, 2013) are used to diagnose patients with physical symptoms (with or without medical explanations) that impact function. One of these diagnoses, Somatic Symptom Disorder, describes patients who present with an “excessive and disproportionate” response to one or more somatic symptoms (e.g., headaches). This diagnosis can be accompanied by the specifier “with predominant pain”, when the symptoms primarily involve pain. Another diagnosis within the Somatic Symptom and related disorders category, Conversion Disorder (or Functional Neurological Symptom Disorder), is a condition in which patients present with neurological symptoms (e.g. numbness) that are not better explained by other medical conditions. The psychiatric view argues that using these diagnoses can reduce over-investigation, guide appropriate care, and encourage treatment of the whole patient (Evans,

Benore, & Banez, 2015; Lipowski, 1988; Newlove, Stanford, Chapman, & Dhariwal, 2019; Smith, Rost, & Kashner, 1995; Williams & Zahka, 2017).

In contrast, proponents in the field of pain do not conceptualize chronic pain as a psychiatric disorder because multiple neurophysiological explanations for several “medically unexplained” symptoms of pain have been provided (Gagliese & Katz, 2000; Graff-Radford, 2000; Katz, Rosenbloom, & Fashler, 2015). It is argued that over-psychopathologizing somatic symptoms may result in a rupture to the therapeutic alliance, patient stigmatization, and inappropriate mental health diagnoses and treatment (Frances, 2013; Katz et al., 2015). Terminology and diagnoses from the ICD-11 category for Chronic Pain¹ (Treede et al., 2019) and the earlier International Association for the Study of Pain (IASP) chronic pain classification system (Merskey & Bogduk, 1994) describe persistent pain involving pain-related changes in brain networks that lead to psychological distress (Nicholas et al., 2019; Turk & Rudy, 1987).

In addition to the fields of psychiatry and chronic pain, there are many other non-psychiatric names for which other “medically unexplained” somatic symptoms are known, including: nonepileptic seizures, functional gait disorder, noncardiac chest pain, vasovagal syncope, and postural orthostatic tachycardia syndrome (POTS; Williams & Zahka, 2017). These additional ways of classifying and conceptualizing chronic pain and somatic symptoms add further evidence to the high level of practical and theoretical complexity inherent in the understanding of these symptoms.

The pediatric literature on prevalence rates of Somatic Symptom and related disorders and their comorbidity with chronic pain is sparse (Crombez, Beirens, Van Damme, Eccleston, & Fontaine, 2009). One study noted that more than 50% of patients attending an American chronic

¹ In the remainder of the paper, we capitalize Chronic Pain when referring to a diagnosis of a relevant disorder (e.g., Chronic Primary Pain) whereas no capitals are used when we are referring to chronic or recurrent pain more generally.

pain clinic reported past or present somatic symptoms (e.g. fatigue) and 5 to 10% experience Conversion Disorder symptoms (Friedrichsdorf et al., 2016). A recent review found that pain and Somatic Symptom and related disorders frequently co-occur, although research in this field is challenged by the multitude of ways in which studies define and measure somatization (Boerner et al., 2020) Consequently, the extent to which these diagnoses are being used to describe youth with symptoms of pain is unclear.

On the one hand, there are similarities between the two diagnostic approaches. Chronic Pain, Somatic Symptom Disorder, and Conversion Disorder all involve physical symptoms that are experienced as distressing and result in significant disruption to functioning. Furthermore, both nomenclatures may involve overlapping treatment techniques such as relaxation training (Palermo & Law, 2015; Williams & Zahka, 2017).

On the other hand, there are some important differences between the two approaches that have implications for assessment and treatment. For example, Somatic Symptom and related disorders are identified as mental health conditions. These disorders recognize that emotions and stress may exacerbate or cause physical symptoms and, similarly, physical symptoms may cause emotional distress (Newlove et al., 2019). These disorders require the presence of “excessive thoughts, feelings, or behaviours related to the symptom” for a diagnosis.

According to the ICD-11 classifications system, the various Chronic Pain diagnoses are not viewed as primary mental health conditions and emotional distress causing pain is not viewed as a process arising from underlying psychopathology. Instead, pain is posited to result in neurophysiological changes that lead to psychological distress (e.g. excessive worry and behaviours about pain) (Frances, 2013). From a treatment perspective, interventional approaches (such as local anesthetic infiltrations or nerve blocks) may be considered appropriate treatments for Chronic Pain but are generally contraindicated for Somatic Symptom and related disorders

because interventional procedures are thought to negatively reinforce thoughts and beliefs about the somatic etiology of the pain (Gofeld, 2019).

The differences in the terminology, conceptualization, and approach to chronic pain may arise from variability in training among healthcare professionals (Williams & Zahka, 2017). The confusion and lack of clarity in conceptualizing Somatic Symptom and related disorders as they relate to chronic pain have led to associated confusion for patients, their families, and practitioners as to who should receive these diagnoses. Anecdotally, our colleagues report being perplexed by questions such as: Should clinics classify chronic pain, with associated psychological influences, as Chronic Pain Syndrome or as one of the Somatic Symptom and related disorders? Can Chronic Pain Syndrome co-occur with Somatic Symptom Disorder or Conversion Disorder? What are chronic pain clinics actually doing in practice? Exploring these questions may have implications for producing guidelines around best practices in pain training, assessment, and treatment. Given this context, the objective of the present study was to understand the perspectives of clinicians working in pediatric chronic pain clinics about the use of Somatic Symptom Disorder and Conversion Disorder diagnoses. Specifically, we wanted to investigate (1) the perspectives on training in pain and in Somatic Symptom Disorder and Conversion Disorder for youth with chronic pain, (2) the frequency with which the professionals whose scope of practice includes psychiatric diagnoses make these diagnoses, (3) beliefs about the advantages and disadvantages of using these diagnoses, and (4) whether clinicians' treatment approach differs depending on the diagnosis. Given the descriptive and exploratory nature of this study, no specific hypotheses were made.

Materials and Methods

Sample Recruitment

All publicly funded tertiary care Canadian pediatric chronic pain clinics (n=10) were approached with a request to participate in the study. A link to the online questionnaire was also posted on pediatric pain listservs for healthcare professionals currently working in a Canadian pediatric chronic pain clinic. Finally, as an additional recruitment strategy, this study was explicitly discussed (and participants received an email link to the survey) during a 2017 provincial workshop for 65 healthcare professionals working in Ontario pediatric chronic pain clinics. The rationale for focusing on Canadian participants included the recent increase in funding and expansion of pain services in Ontario (Stinson & Campbell, 2016) and to obviate concerns related to billing (as Canadian healthcare, in comparison to American healthcare, is publicly-funded).

Survey Design and Procedure

No existing survey met the current objectives. Therefore, a mixed-methods survey was designed for this study by four psychologists and authors who are researchers and clinicians in the field of pediatric chronic pain. The survey was then further revised after review by two additional psychologists/researchers working in chronic pain and pediatric consultation-liaison psychiatry clinics. The final survey (see Supplemental Materials) included questions about demographics and training background as well as diagnosis and treatment of Somatic Symptom Disorder, Conversion Disorder, and chronic pain. The response options depended on question and included: Likert-type, multiple choice, ranking, and open-ended. Specific age ranges were not targeted in the questions about youth referred to pediatric chronic pain programs, although the upper limit is 18 years for such care in Canada. The survey was reviewed and approved by the Research Ethics Board at York University and administered online using Survey Monkey.

After providing informed consent, participants were directed to the online survey to complete. Data were anonymous (i.e., uniquely identifying information was not collected on the participants). The survey required approximately 15 minutes to complete.

Data Analyses

Closed-Ended Questions: Data were summarized using descriptive statistics (e.g., means, standard deviations) to explore demographic characteristics of participants as well as their perspectives on training in, diagnosis of, and treatment of chronic pain, Somatic Symptom Disorder, and Conversion Disorder in youth with chronic pain.

Open-Ended Questions- Content Analysis: Responses to the open-ended questions regarding advantages and disadvantages of the diagnoses were analyzed using a rigorous inductive content analysis approach (Elo et al., 2014; Elo & Kyngäs, 2008). In the preparation phase, the responses to the four open-ended questions were independently reviewed by two researchers (CMM, BD) and potential codes/categories were generated when reviewing responses. CMM then took the lead to read through the responses multiple times, revisiting the codes list each time and editing as needed; the coding system was then organized by CMM, reviewed by BD with discussion being used to refine and finalize. Once finalized, CMM and BD independently assigned codes to all of the responses using the same system. The coding system was designed to be mutually exclusive and exhaustive at the individual unit of meaning level but a participant response as a whole could receive more than one code. To further enhance the trustworthiness of our approach beyond the steps outlined in Elo and Kyngäs (2008) Cohen's Kappa was used to assess intercoder reliability (O'Connor & Joffe, 2020). Discrepancies were identified and resolved through discussion and consensus. Cohen's Kappa agreement coefficients for the content analysis across the four questions were as follows: .74 for advantages of diagnosing Conversion Disorder, .72 for disadvantages of diagnosing Conversion Disorder, .55

for advantages of diagnosing Somatic Symptom Disorder, and .73 for disadvantages of diagnosing Somatic Symptom Disorder.

Results

Sample Description: Participant Demographics

The survey software logged 79 separate survey submissions, but for 29, although consent was provided, none of the survey items were completed, leaving 50 completed surveys. Some respondents did not complete all items.

Ninety-percent ($n = 45$) of participants were female and 10% ($n = 5$) were male. The average age of participants was 42.1 years ($SD = 9.33$), and ranged from 28 to 61 years. Eighty-eight percent ($n = 43$) of the sample identified as Caucasian, 8.2% ($n=4$) identified as East Asian, 2% ($n = 1$) identified as African American, 2% ($n = 1$) identified as “Other”, one participant did not disclose their ethnicity.

Sixty percent of participants reported having worked in the field of pediatric chronic pain for 5 or fewer years (40% had worked in pediatric pain for longer than 5 years) and 18.4% of participants had worked in the field of adult chronic pain prior to working in pediatric pain.

Participants represented a variety of disciplines: physiotherapist ($n = 12$, 24%), psychologist ($n = 9$, 18%), nurse or nurse practitioner ($n = 8$, 16%), anesthesiologist ($n = 5$, 10%), social worker ($n = 4$, 8%), pediatrician or adolescent medical specialist ($n = 3$, 6%), occupational therapist ($n = 2$; 4%), pharmacist ($n = 2$, 4%), psychiatrist ($n = 2$, 4%), and other (e.g., manager, $n = 3$, 6%).

Fifty-eight percent of the sample indicated that they were involved in current pain research activities and 40% reported being a member of a professional pain association. Most participants worked part-time (ranging between 1 day per week to 4 days per week) in pediatric chronic pain with only 39% of participants working 5 days per week. With respect to clinical duties, on average, participants reported seeing 1.79 ($SD = 1.12$) new young people with chronic pain per

week and 5.65 (SD = 3.68) follow-up patients. The average age of patients seen within pediatric chronic pain clinics was estimated at 14.87 years (SD = 0.80).

Objective 1: Training in Pain and in Somatic Symptom Disorder and Conversion Disorder

Regarding training, 98% of participants reported attending at least one pain conference, all indicated that they had read pain books/journal articles, 91% shared that they watched pain webinar(s), 94% attended at least one pain workshop, 52% indicated that they participated in structured pain training (comprised of practicum placements in pain, internship in pain, residency in pain, fellowship in pain, and/or graduate training/research in pain), and 23% of participants noted that they have participated in the Pain in Child Health Strategic Training Initiative (a training consortium to prepare graduate students to become independent pain researchers).

Regarding training in Somatic Symptom Disorder and Conversion Disorder, participants indicated the following in response to an open-ended question: lectures, readings, in-services by members of their program, discussions with colleagues, informal training, webinars, abnormal psychology courses, case presentations, grand rounds discussions, and mentorship by colleagues with experiences in Conversion Disorder. Figures 1 and 2 show the extent of training, and satisfaction with training, in pain as well as Somatic Symptom Disorder and Conversion Disorder, respectively. Figure 1 shows that reports of moderate to advanced training were mostly for pain whereas reports of none to minimal training were mostly in relation to Somatic Symptom Disorder and Conversion Disorder. Figure 2 shows (neutral responses aside) that respondents are mostly dissatisfied with their training in Somatic Symptom Disorder and Conversion Disorder and mostly satisfied with their training in pain.

Objective 2: Diagnosing Somatic Symptom Disorder or Conversion Disorder

Twenty-three out of 49 participants (46.9%) reported that they do not diagnose in their profession. Of the remaining 26 participants who do provide diagnoses, 8 (30.7%, 2

psychiatrists, 2 psychologists, and 2 pediatrician/adolescent medicine physicians, and 2 anesthesiologists) indicated that they have diagnosed Somatic Symptom Disorder (with predominant pain) and 8 (30.7%, 1 psychiatrist, 1 psychologist, 2 pediatrician/adolescent medicine physicians, and 4 anesthesiologists) reported diagnosing Conversion Disorder in a young person with chronic pain. These participants reported that they diagnose approximately 17% of young people with chronic pain with Somatic Symptom Disorder and 5% of their patients with chronic pain with Conversion Disorder. Of those who diagnose, psychologists make these diagnoses least often (with more than 75% of psychologist participants indicating that they do not diagnose Somatic Symptom Disorder or Conversion Disorder in young people with chronic pain, in comparison to 33% of pediatrician/adolescent medicine physicians, and 60% of anesthesiologists. Both psychiatrists who completed the survey reported making these diagnoses). Figure 3 displays how confident these healthcare professionals feel when making these diagnoses.

Objective 3: Beliefs about Advantages and Disadvantages of Using Somatic Symptom Disorder and Conversion Disorder in Young People with Chronic Pain

Open field responses were also collected from participants regarding the perceived advantages (“pros”) and disadvantages (“cons”) of using Somatic Symptom Disorder and Conversion Disorder diagnoses in young people presenting with chronic pain. Table 1 shows the detailed coding scheme with examples and the percentage of responses to each question falling into the given code category.

Overall, 30 participants responded to the question regarding the advantages of Somatic Symptom Disorder diagnosis and 32 participants responded to the other three questions. ‘Relation to treatment’ received the largest overall percentage of responses across the four questions. This code was based on responses associated with participants’ perceptions of the

utility of the diagnosis with respect to how it informs treatment. ‘Conceptualization of symptoms and health’ received the next largest overall percentage of responses across the four questions and was related to the perceived adequacy of the diagnosis in conceptualizing patients’ symptoms. ‘Interpretability, potential to enhance understanding of patient/family’ received the third largest overall cumulative percentage of responses across the four questions. This code reflected participants’ perceptions of how well patients and their families can understand the diagnosis and/or how the diagnosis can enhance the understanding of the patient/family members regarding the nature of the health issue and how it should be treated. Other responses of note include ratings associated with how the diagnosis affects the therapeutic alliance between the clinician and patients and family members (‘Therapeutic alliance and motivation’), the potential utility and drawbacks of diagnostic labels and stigma associated with them (‘Label and stigma’) as well as issues associated with validating the experience of patients and their families (‘Patient/family validation’).

Objective 4: Treating Chronic Pain, Somatic Symptom Disorder, and Conversion Disorder

Participants were asked to rank the top five interventions used for chronic pain, Somatic Symptom Disorder, and Conversion Disorder (1 = most important, 5 = least important). There were no differences reported among these diagnoses with respect to the types of interventions most commonly used. In rank order, psychoeducation about the mind-body connection was most frequently endorsed, followed by cognitive behavioral therapy, pacing strategies/activity modification, mindfulness-based therapies and relaxation and finally, parent training.

Participants were also asked to rate how successful (defined by return to function) they felt their clinic’s approach to treatment was for patients with chronic pain, Somatic Symptom Disorder, and Conversion Disorder, from 0 (not at all successful) to 10 (extremely successful). On average, the 47 respondents rated treatment success for youth with chronic pain as 7.31, for youth with

Somatic Symptom Disorder with predominant pain as 5.59, and for youth with chronic pain and Conversion Disorder as 4.79.

Discussion

The present study explored the perspectives of healthcare professionals working in publicly funded tertiary care pediatric chronic pain clinics regarding the use of Somatic Symptom Disorder and Conversion Disorder diagnoses in young people with chronic pain. Most participants reported moderate to advanced pain training, and many reported none to minimal training in Somatic Symptom Disorder and Conversion Disorder. Satisfaction with training appears to be directly related to amount of training since respondents were mostly dissatisfied with their training in Somatic Symptom Disorder and Conversion Disorder and mostly satisfied with their training in pain. Consistent with the amount of training and satisfaction with training, confidence in making Somatic Symptom Disorder and Conversion Disorder diagnoses was low.

Cause for concern is apparent in the pattern of results regarding use of Somatic Symptom Disorder and Conversion Disorder diagnoses, level of and satisfaction with related training, and confidence in making the diagnoses. The prevalence rates of patients being diagnosed with Somatic Symptom and related disorders in Canadian pediatric chronic pain clinics (5-17%) is also concerning given the minimal published data on the topic (Frances, 2013; Friedrichsdorf et al., 2016; Landa, Bossis, Boylan, & Wong, 2012). There are no large scale studies exploring the prevalence of Somatic Symptom Disorder and Conversion Disorder in youth with chronic pain, indicating a need for further research (Evans et al., 2015).

While we did not ask participants to expand on why they lack confidence, we expect that this is largely due to a lack of training. Lack of confidence also may relate to problems with the validity and reliability of the diagnoses reflected in inadequate field testing, diagnostic inflation, and poor sensitivity and specificity (Katz et al., 2015). Finally, it may be that lack of confidence

stems from the complexity of the presenting symptoms. Additional research is needed since poor diagnostic confidence may be related to poorer patient outcomes and diagnostic error (Neville, Jordan, Beveridge, Pincus, & Noel, 2019).

Interesting data emerged with respect to the qualitative findings exploring the advantages and disadvantages of using these diagnoses in youth with chronic pain. For example, arguments were made on both sides regarding the appropriateness of Somatic Symptom and related disorders diagnoses to adequately conceptualize health. It is notable that only a small minority of responses referenced consistency with current knowledge as an advantage or disadvantage of using the diagnoses.

Divergent perspectives also emerged in terms of interpretability of the diagnoses for families and for informing treatment. On one hand, for both Somatic Symptom Disorder and Conversion Disorder, the potential for the diagnoses to be stigmatizing and to negatively affect therapeutic alliance were seen as clear disadvantages. This perspective is in keeping with arguments for a “normal psychology” of somatic sensations (Eccleston, 2011, 2015; Heathcote et al., 2019) that focuses less on the label and more on the meaning that youth and clinicians ascribe to the sensations. In contrast, several responses referenced how the diagnoses would positively guide treatment (e.g., reduce “medicalization”). In sum, these results demonstrate polarized perspectives of healthcare professionals regarding chronic pain versus Somatic Symptom and related disorders which is paralleled in the siloed psychiatric versus pediatric chronic pain literatures.

A third perspective, unifying psychiatry and psychology views, may be worthy of consideration. It is possible that clinicians who use Somatic Symptom Disorder and Conversion Disorder diagnoses tend to see cases that are more complex. Considering Somatic Symptom and related disorders diagnoses in youth presenting with chronic pain and other somatic symptoms

(e.g. fatigue, dizziness, fainting) may be beneficial for understanding the overall symptom profile. Future research is needed to explore diagnostic considerations for youth with chronic pain and comorbid somatic symptoms.

Results indicated no major differences in interventions used for patients diagnosed with chronic pain, Somatic Symptom Disorder, or Conversion Disorder. The most commonly reported interventions (e.g. psychoeducation) are consistent with current treatment manuals for chronic pain (Palermo & Law, 2015; Thorn, 2017) and Somatic Symptom and related disorders (Williams & Zahka, 2017). However, a limitation of the present study is that participants were not specifically asked about differences in their treatment approaches for youth with Chronic Pain versus Somatic Symptom and related disorders. Furthermore, despite the commonalities in treatment approaches, the utility of assessment (i.e., how chronic pain is classified) still matters because the diagnosis may impact clinician behavior (e.g., confidence in executing treatment) and the willingness of patients to engage in (or reject) a proposed treatment plan.

Of note, participants reported that their treatment was more successful for youth with chronic pain without a Somatic Symptom and related disorders than for youth with these conditions. There are several possible reasons for this finding. First, patients with Chronic Pain and Somatic Symptom Disorder or Conversion Disorder may be more complex (e.g., longer illness durations, presence of co-morbid diagnoses) and difficult to treat than chronic pain patients without Somatic Symptom Disorder or Conversion Disorder (Evans et al., 2015; Landa, Peterson, & Fallon, 2012). Second, the relative lack of training in Somatic Symptom Disorder and Conversion Disorder may translate into inconsistencies in the way teams deliver treatment to youth (Evans et al., 2015). These issues may be perceived by patients, which, in turn, may result in poor treatment adherence. Third, there appears to be less peer-reviewed literature on treating Somatic Symptom and related disorders in youth with chronic pain compared to treating those

with chronic pain, which may influence clinicians' confidence in treating the former. Research is needed to determine whether provider training, satisfaction with training, and confidence in diagnosing correlate with patient outcomes.

This study has limitations. First, although we made diverse efforts to reach as many Canadian staff within pediatric chronic pain clinics, the sample of participants was small, predominantly female, and may be biased (e.g., eliciting opinions from participants who are most frustrated about current diagnostic practices). Second, not all participants responded to all items. That not every item was answered by all 50 participants may not only bias the results, but also reduces further the small sample size. Third, the sample of pediatric chronic pain clinics may not be an accurate representation of all clinics in Canada since some provinces are overrepresented (e.g. Ontario) whereas others are underrepresented. Moreover, we do not have specific numbers of practitioners who work in each clinic or information about whether the demographics of our sample mirror the larger population. Another limitation in this study is that participants were not asked to respond with respect to a particular age-group within pediatric care. However, most pediatric pain clinics in Canada report treating youth ages 5-18 years. Finally, participants work in publicly-funded hospital clinics and consequently the data may not be generalizable to other settings (e.g. privately-funded hospital or community clinics).

Future studies are needed, with international participants, to examine treatment pathways for youth with chronic pain and Somatic Symptom and related disorders and whether practitioners are doing anything different in their treatment approaches. Finally, future investigations should explore what can be learned from increasing collaboration between the pain and psychiatry approaches. While we lack consensus in some areas, this study highlights that there are similarities (e.g., in treatment approaches) that could prompt clinicians and researchers to come out of their silos.

In 2017, Benore and colleagues published training guidelines on pediatric chronic pain with little mention of Somatic Symptom and related disorders. As a profession, we need to help trainees and providers appreciate and feel confident in addressing the diagnostic complexities in pediatric chronic pain and how these complexities relate to treatment decisions. While this study is an important first step to exploring how Somatic Symptom Disorder and Conversion Disorder are being used in pediatric chronic pain clinics, future research is needed to better understand the neurobiology of somatization and related disorders (in the way we have benefited from 60 years of pain research). This work will aid in the development of standardized guidelines for diagnosis, training, and referral criteria. The field of chronic pain needs evidence-based recommendations about whether to diagnose a child whose chief symptom is chronic pain with Somatic Symptom Disorder or Conversion Disorder. Furthermore, if these diagnoses are demonstrated to be appropriate, valid, and reliable, the field will need guidelines for when they would be considered applicable for young people with chronic pain and how to effectively treat these presentations.

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