TEACHERS’ UNDERSTANDING OF CHRONIC PAIN AND ITS IMPACT ON
STUDENTS’ FUNCTIONING

Thesis

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By

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TEACHERS’ UNDERSTANDING OF CHRONIC PAIN AND ITS IMPACT ON STUDENTS’ FUNCTIONING

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ABSTRACT

TEACHERS’ UNDERSTANDING OF CHRONIC PAIN AND ITS IMPACT ON STUDENTS’ FUNCTIONING

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Chronic pain is a widespread and complex concern, which affects students academically, emotionally, and socially. Teachers’ knowledge about meeting the academic, emotional, and social needs of children with chronic pain needs is essential. Previous findings indicate that attention and relief from responsibility may reinforce and maintain functional disability; however, teachers may not be properly educated about ways to help students manage chronic pain. This study assessed regular education teachers’ understanding of chronic pain. One hundred and five teachers from a midwestern school district completed a survey rating their understanding of chronic pain. The majority of teachers reported no knowledge about chronic pain and had not received any formal training. Most of the teachers, however, indicated that they have previously had a student with chronic pain whose academic, emotional, and social functioning was somewhat affected. Teachers did not vary significantly in their perceptions of impact of pain on functioning based on their school type. Future research should focus on specific chronic
pain conditions and the effectiveness of interventions to improve teacher knowledge of working with students with chronic pain. School systems should ensure that teachers understand medical conditions associated with chronic pain in order to provide effective interventions.
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CHAPTER I
INTRODUCTION

Chronic pain includes persistent and recurrent pain that tends to fluctuate in severity, quality, regularity, and predictability. It can occur in a single or multiple body regions or organ systems. The most frequently reported types of chronic pain include headaches, recurrent abdominal pain, and musculoskeletal pain (Harma, Kaltiala-Heino, Rimpela, & Rantanen, 2002). In contrast to acute pain, in which the sympathetic nervous system is aroused and the bodily injury eventually heals, chronic pain is rarely accompanied by sympathetic nervous system arousal; thus, the individual may not appear in pain (American Pain Society, 1999). Chronic pain can have a significant effect on individuals and their families. Chronic pain sufferers often experience decreased quality of life in many areas including participation in physical activities, emotional well-being, and school or work functioning (Logan, Simons, Stein, & Chastain, 2008).

Despite these concerns, a lack of substantive attention has been given to students with chronic pain. More specifically, school systems need the resources to address the needs of students with chronic pain. School systems can assist these students and families with school adjustment and their academic, social, and emotional functioning. Teachers need to be able to identify cognitive and emotional problems, so that school psychologists can intervene in the lives of students managing chronic pain. Seymour
(2004) recommended that school systems have (a) a written policy; (b) a named contact for dealing with children unable to attend school for medical reasons; (c) clear referral procedures; (d) effective multiagency working practices; (e) full collaborative partnerships with parents and pupils; and (f) well-structured, well-supported reintegration planning. It is, therefore, important to understand if teachers understand the impact that chronic pain has on students. By assessing teachers’ understanding of chronic pain and its impact on students’ functioning, school systems can provide more effective interventions for students with chronic pain in the future.
CHAPTER II  
LITERATURE REVIEW

Chronic pain in adults has been well-documented throughout society as a costly and disabling health care problem. Adults with chronic pain have elevated levels of depression, anxiety, and other physiological symptoms (Varni et al., 1996). Even though chronic pain in adults is a significant problem, a lack of substantive attention has been placed on pediatric chronic pain, despite its frequency in children and adolescents. Approximately 10 to 25% of children and adolescents report weekly or frequent headaches; between 10 and 25% have recurrent abdominal pain; and between five and 33% report musculoskeletal pains (Harma, Kaltiala-Heino, Rimpela, & Rantanen, 2002). School systems have had difficulty addressing the needs of students with chronic pain. Wodrich and Spencer (2007) indicate that 40% of children and adolescents with chronic pain are likely to experience problems at school. Among the problems are frequent absences, decreased academic performance, and impaired ability to cope with the demands of the classroom setting (Logan, Coakley, & Scharff, 2006).

The multiple effects of chronic pain, difficulties in assessment, and complexity of providing interventions assure that these conditions will present consistent challenges to school systems. Brook and Galili (2001) found that three-fourths of the teachers they surveyed considered it critical to improve knowledge about chronic medical conditions in
schools. Teachers are frontline resources for students with chronic pain; therefore, it is important that teachers understand chronic pain and the medical conditions associated with it. If teachers have knowledge of chronic pain conditions, then school systems will be more prepared to provide effective interventions for students with chronic pain. Additionally, students with chronic pain will be able to overcome barriers prohibiting them from achieving academic and social success in classroom settings.

**Impact of Chronic Abdominal Pain**

To better understand the multiple dimensions of chronic pain in the diagnostic, research and treatment realms, one can examine a complex pain condition. Many students experience chronic abdominal pain. Chronic abdominal pain occurs near the abdominal area and is associated with discomfort in other areas of the body, including headaches (McMahon & Harper, 1990). Early diagnosis of chronic abdominal pain is difficult for two reasons. First, abdominal pain is a symptom for several medical conditions (McMahon & Harper). Second, it is often difficult to distinguish if the abdominal pain is either organic or non-organic because it is rarely accompanied by signs of sympathetic nervous system arousal (McMahon & Harper). This often delays the diagnosis of abdominal pain. McMahon and Harper indicate that in half of the affected children, chronic abdominal pain is present for one year prior to having an examination. Due to the complexity of assessing and treating chronic abdominal pain, it is apparent that students with this affliction have difficulty with functioning and adjusting in school settings. As in the case of abdominal pain, the etiology of frequent pain complaints is often difficult to distinguish, which frequently leads to increased psychosocial risk (McMahon & Harper).
Impact of Chronic Pain on School Functioning

As a group, children and adolescents with chronic pain present with a wide range of functioning and adjustment problems. The physical pain experienced by these children and adolescents often leads to other problems. For example, sleep disturbance is a potential outcome of chronic pain. Children and adolescents with chronic headaches and migraines experience sleep disturbances involving sleep quality, night awakenings, nocturnal symptoms, and daytime sleepiness (Palermo, 2000). The direct relationship between the amount and pattern of pain symptoms and frequency and severity of sleep disturbances in children and adolescents with chronic pain is unclear. Sleep disturbances can contribute to increased stress and problems with school attendance and performance, emotional status, and peer and family relations (Palermo). Research indicates that 3.4% of children fail at least one grade from sleep problems that may cause fatigue and consequently learning difficulties (Luginbuehl, Bradley-Klug, Ferron, Anderson, & Benbadis, 2008).

Children with chronic pain also report experiencing more stress, feeling less cheerful and more depressed compared with children without pain (Palermo, 2000). Symptoms of depression are related to the amount of activity restriction for children with chronic pain (Palermo). The reason for the relationship between chronic pain and decreased participation in activities is unknown. The children might have difficulty participating in activities due to the severity of the pain and/or fatigue associated with their pain, or they might avoid activities because the experiences of chronic pain lead to difficulties with coping and increased social anxiety.

The negative effects of chronic pain on family relations might lead to more stress
for children and adolescents. For instance, chronic pain patients with idiopathic musculoskeletal pain present with high levels of ongoing family difficulties (Palermo, 2000). The stressors associated with caring for children and adolescents with chronic pain are challenging for parents of these students. Palermo indicates that most families experience the burdens of lost personal time, financial obligations, and costs from missed work. Parents of students with chronic pain may also have difficulty working collaboratively with schools and being assertive advocates for their children. Parents who feel helpless and become confrontational with teachers may contribute to greater problems. Teachers appear to accommodate students more when their parents are cooperative as opposed to confrontational (Logan et al., 2006). As a result, families of children and adolescents with chronic pain often encounter additional stressors when attempting to navigate the many facets of receiving care for their children. Parents often feel an acute sense of helplessness when faced with the nature of their child’s pain, primarily at their inability to help, comfort, or soothe their child (Maciver, Jones, & Nicole, 2010. Children and adolescents are also encumbered by the worries and strain that the chronic pain has created for their families.

In addition to sleep problems, restricted activities, increased stress, and strained family relationships; students with chronic pain often incur school absences and fail to complete assignments. White and Farrell (2006) report that 22% of girls and 13% of boys with chronic pain failed to complete schoolwork. Additionally, these students might develop a fear about attending school due to poor school climates. For example, students might have more psychosomatic symptoms that may be exacerbated when confronted by competition and social comparison (Murberg & Bru, 2004). Furthermore, students with
chronic pain may face rejection by their healthy peers who are uncertain about their physical adequacy (Worchel-Prevatt et al., 1998). They also fear that their classmates will tease them about their appearance, or they will have difficulty with schoolwork due to missed time (Worchel-Prevatt et al.). They often feel isolated and are at risk of losing their social support system due to their chronic pain.

The coping strategies of children and adolescents influence their responses to pain. Children and adolescents with chronic pain may isolate themselves to avoid daily stressors. More specifically, Walker, Smith, Garber, and Claar (2006) studied the coping strategies of abdominal pain patients. The results suggest that abdominal pain patients tend to avoid daily stressors and do not develop new coping skills or confidence. It is critical to ensure that children and adolescents with chronic pain use effective strategies to cope with pain. Problem-focused coping is an effective strategy because it teaches pain control to children and adolescents. Problem-focused coping attempts to lessen the pain experienced by students through the use of distraction, by increasing feelings of control and self-efficacy, and by altering expectations for pain (Palermo, 2000). If students with chronic pain fail to use these strategies, then the problems become more severe and difficult to manage.

**Teachers' Perceptions of Students with Chronic Pain**

Eisenberg (1979) reported that individuals incorporate a wide range of factors into their judgments about people with illnesses. Children with chronic health conditions develop within the framework of overlapping systems, including family, school, healthcare provider and community (Power, 2006). To this end, past research about perceptions of chronic pain has focused mainly on mothers’ attributions of their
children’s pain symptoms (Claar & Walker, 1999) and to peers’ responses to children with pain (Guite, Walker, Smith, & Garber, 2000). These studies identified a contributing factor of obvious medical symptoms as influencing the perception of chronic pain. Students with chronic pain who display no outward signs of illness have a greater chance to be perceived negatively in school settings. Despite these findings, few studies have examined the effect that teachers’ perceptions have on the functioning ability of students with chronic pain (Logan et al., 2006).

**School Systems’ Responses to Students with Chronic Pain**

The bio-behavioral model of pediatric chronic pain indicates that others’ responses to pain play an essential coping role for students with chronic pain (Varni, 1989). Therefore, school officials’ perceptions of students with chronic pain are vital when responding to the needs of these students. Previous research has only focused on the roles of school psychologists when responding to the needs of students with chronic pain. McMahon and Haper (1990) suggest that school psychologists should assume four primary roles when helping students with chronic pain: First, school psychologists should sensitize and educate school officials regarding the best methods to handle somatic complaints. Second, school psychologists should identify and assess the context in which students emit frequent somatic complaints. Third, school psychologists should assist school officials in assessing and treating students with frequent somatic complaints. Finally, school psychologists should cooperatively work with the healthcare teams for students with chronic pain. By focusing on these four roles, school psychologists can be pro-active in addressing the needs of students with chronic pain.
The need arises for teachers to identify students with chronic pain, so school psychologists can intervene and assist these students. Teachers have daily contact with students and should be able to assess changes in students’ daily functioning. Teachers should be properly trained to identify symptoms evident for students with chronic pain. For example, teachers can identify students with chronic pain by examining frequent absences and visits to the school nurse. Additionally, teachers can monitor students’ depressive or anxiety symptoms along with activity restriction and isolation indicators to determine concerns for chronic pain. Teachers can also notice changes in students’ academic performance. All of these factors are crucial when identifying students with chronic pain.

**Conclusion**

The physical pain combined with lifestyle factors, cognitive factors, family environment, and emotional factors are interconnected and disrupt daily function in students with most chronic pain conditions. While the specific mechanisms for the various pain conditions are often unknown, pain treatment emphasizes increasing the students’ and families’ ability for self-management and a gradual return to function. School systems are able to work closely with the healthcare team of students with chronic pain to learn how pain affects the biological, psychological, and social components and to help respond to pain behaviors in ways that foster adaptive functioning. It is, therefore, vital that teachers assess the needs of students with chronic pain to provide effective school-based services.

Previous studies about students with chronic pain have examined functioning problems, teachers’ perceptions, and school psychologists’ responses. These areas are
critical when addressing the needs of students with chronic pain. More importantly, though, research should examine if teachers as direct service providers understand chronic pain and its impact on school functioning. In order to provide and respond to the needs of students with chronic pain, teachers should thoroughly understand the complex nature of chronic pain. Therefore, this study assessed the extent to which teachers understand chronic pain. It also examined if teachers ever had a student with chronic pain and if they received any formal training on chronic pain. Finally, it assessed if teachers feel that school systems should provide training about chronic pain. By having more knowledge about teachers’ understanding of chronic pain, school systems can provide more effective responses to students with chronic pain.
CHAPTER III

METHODOLOGY

The purpose of the methodology was to assess teachers’ understanding of chronic pain and its impact on students’ functioning. The participants were chosen from an elementary school, middle school, and high school in one Midwestern school district. In order to obtain a deeper understanding of teachers’ knowledge about chronic pain, the participants were asked to anonymously answer questions from an original survey.

Participants

A survey was distributed to one hundred and twenty teachers in one school district. According to the Ohio Department of Education, the school district has an enrollment of 1392 students and a graduation rate of 99%. The school district is predominantly white, non-Hispanic (90%) with a small percentage of students who have disabilities (11%) and are economically disadvantaged (9%). Most of the teachers (68%) in the school district have at least a Masters degree (http://ohio.gov/education).

One hundred and five teachers completed the survey for a response rate of 88%. The teachers were predominantly female (94%) and Caucasian (99%). Thirty-one percent of the teachers reported being elementary school teachers. Thirty-five percent of the teachers reported that they were middle school teachers, while thirty-three percent of the teachers indicated that they were high school teachers. Consent was required for...
study participation (see Appendix A).

**Instrument**

An original survey developed by this author with eleven, 5-point Likert scale questions with anchors ranging from “Not at All” to “Very Knowledgeable” or “Very Much” was used to assess teachers’ understanding of students’ chronic pain (see Appendix B). The survey was partially modeled after a survey used to conduct a needs assessment of teachers’ working with children with various medical conditions (Nabors, Little, Akin-Little, & Iobst, 2008). The questions on the survey focused on the knowledge and opinions of the participants in the study. The survey took approximately ten minutes for the participants to complete.

**Procedures**

The author distributed surveys to teachers in person and at staff meetings at the elementary school and middle school. The author placed surveys in teachers’ mailboxes at the high school. Instructions were provided at the top of the survey, and a consent form was attached to each survey. The teachers were informed that their completion of the survey signified their consent to participate in this study. The teachers were also informed that they could choose not to complete the survey. The teachers were told they could return the survey upon completion at the end of the staff meetings or by placing it in the mailbox of the school psychologist. Each teacher was assigned an identification number to ensure anonymity. Upon completion of the study, teachers were thanked for their participation.
CHAPTER IV

RESULTS

Forty percent of teachers indicated that they were not knowledgeable about chronic pain. This was followed by teachers who rated their knowledge of chronic pain between not at all and somewhat, somewhat, between somewhat and very, and very knowledgeable. Most teachers indicated that they have had a student with chronic pain in their class. Most teachers also indicated they have not received formal training on chronic pain, and school districts should provide training about chronic pain. From their experiences, teachers indicated that 88.1% of students with chronic pain in their classes required accommodations.
Table 1. Descriptive Data on Teachers’ Responses (N = 105)

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>How knowledgeable are you about pediatric chronic pain?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at All</td>
<td>42</td>
<td>40</td>
</tr>
<tr>
<td>Between Not at All and Somewhat</td>
<td>33</td>
<td>31.4</td>
</tr>
<tr>
<td>Somewhat</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Between Somewhat and Very Knowledgeable</td>
<td>7</td>
<td>6.6</td>
</tr>
<tr>
<td>Very Knowledgeable</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>Have you ever had a student with chronic pain?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>59</td>
<td>56.2</td>
</tr>
<tr>
<td>No</td>
<td>46</td>
<td>43.8</td>
</tr>
<tr>
<td>Have you ever received formal training on chronic pain?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>No</td>
<td>100</td>
<td>95.2</td>
</tr>
<tr>
<td>Do you think the schools should provide training about chronic pain?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>89</td>
<td>84.7</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>15.3</td>
</tr>
<tr>
<td>If you had a student with chronic pain in your class, did the student require special accommodations?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>52</td>
<td>88.1</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>11.9</td>
</tr>
</tbody>
</table>

 Teachers rated the impact of chronic pain on all areas of functioning, school attendance and academic performance, emotional functioning, and social relationships as somewhat (three out of five). Teachers who indicated that they have not had a student with chronic pain in their class rated the potential impact of chronic pain on all areas of functioning as very much.
A one-way ANOVA was performed to determine whether teachers from elementary, middle, and high school differed in their perceptions of how much chronic pain impacted students’ school attendance and academic performance, social relationships, and emotional functioning. The results of the ANOVA were non-significant for school attendance and academic performance, $F(2, 56) = 1.43$, $p = .260$, as well as for social relationships, $F(2, 56) = 0.77$, $p = .475$ and emotional functioning, $F(2, 56) = 0.00$, $p = .996$. Teachers who did not have a student with chronic pain in class also did not differ significantly based on their school, for school attendance and academic performance, $F(2, 43) = 0.93$, $p = .91$, as well as for social relationships, $F(2, 43) = 0.30$, $p = .741$ and emotional functioning, $F(2, 43) = 0.10$, $p = .90$.

### Table 2. Descriptive Data on Impact of Chronic Pain ($N = 105$)

<table>
<thead>
<tr>
<th></th>
<th>Teachers with a student with chronic pain ($N = 59$)</th>
<th>Teachers without a student with chronic pain ($N = 46$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>School Attendance/Acad. Performance</td>
<td>3.46</td>
<td>4.61</td>
</tr>
<tr>
<td>Emotional Functioning</td>
<td>3.65</td>
<td>4.48</td>
</tr>
<tr>
<td>Social Relationships</td>
<td>2.92</td>
<td>4.70</td>
</tr>
</tbody>
</table>
CHAPTER V
DISCUSSION

The results of this study indicated that teachers have limited knowledge and need formal training about students with chronic pain. Most of the teachers indicated that they previously had a student with chronic pain whose academic, emotional, and social functioning was somewhat affected. Additionally, the majority of teachers indicated that students with chronic pain required accommodations in their classes. Based on these findings, it appears necessary and important to provide teachers with specific knowledge and skills about working with students with chronic pain. School psychologists can assist in teacher training by providing educational materials and consultation when teachers require training to meet needs in the classroom (Rehm, 2002). This would allow for the development of specific interventions to support teachers working with students with chronic pain. School psychologists can also serve as a liaison with students’ healthcare teams and then convey information to teachers (Nabors & Lehmkuhl, 2004).

The results of this study indicated that teachers who have not worked with students with chronic pain perceived that the impact of chronic pain on functioning would be higher than the actual impact indicated by teachers who have worked with students with chronic pain. These findings are consistent with previous research, which found that teachers devoted extra time when working with students with medical
conditions (Brook & Galili, 2001). Ultimately, teachers with limited knowledge about students with chronic pain might be contributing to the maintenance of pain and reinforcing functional disability. Walker, Claar, and Garber (2002) indicate when attention and relief from responsibility accompany their sick role behavior, symptoms and disability are likely to be reinforced and maintained long after any organic disease processes have resolved. By providing excessive accommodations, teachers might be creating a sick role identity for these students. It is, therefore, crucial that teachers receive formal training to find a balance between supporting students with chronic pain and encouraging independence to decrease functional disability.

Limitations and Future Research

Although this study begins to explore the important topic of teachers’ understanding of chronic pain, its limitation lies in the use of an original survey. Due to the lack of studies exploring teachers’ understanding of students with chronic pain, the survey was partially modeled after a survey used to assess teachers’ knowledge and confidence in managing children with various medical conditions (Nabors et al., 2008). The survey lacks previous reliability or validity across other studies and is a subjective measure of teachers’ perceptions. Participants’ responses might have been influenced by their beliefs of the investigator’s expectations. This study is also limited by the small sample size and the fact that all of the teachers came from the same school district.

Future research can build on the findings from this study. In this study, teachers reported that they do not have the knowledge or training to work with students who have chronic pain conditions. Therefore, future research might examine interventions designed to increase teachers’ knowledge and understanding of this topic. Additionally,
future research might assess if school systems provide formal training to identify students with chronic pain. These research areas can continue to build on the foundation of increasing knowledge about chronic pain so school systems can identify, intervene, and properly assist students with chronic pain.

Conclusion

Students dealing with chronic pain may experience several disruptions to their daily functioning, such as ongoing medical needs, family stress, school absences, academic difficulties, and psychosocial distress. Despite these disruptions, students with chronic pain should be afforded the same opportunities in the classroom as their peers. To this end, teachers with knowledge and formal training about chronic pain can be a valuable asset to these students and their families. For example, teachers have the ability to significantly implore families to focus on all aspects of the child and not specifically on the chronic pain associated with the child. Teachers have the opportunity to spend extended time with students with chronic pain. In this role, teachers can educate families of students with chronic pain on normative development tasks and other areas where students with chronic pain might excel. These accomplishments will allow families to notice how students with chronic pain are successful and not limited completely by chronic pain. School systems should ensure that teachers are equipped to work with the growing population of students with chronic pain.
REFERENCES


APPENDIX A

INFORMED CONSENT TO PARTICIPATE AS A RESEARCH SUBJECT

Project Title: Teachers’ Understanding of Chronic Pain and Its Impact on Students’ Functioning

Investigator: Jason Parkins; M.S.

Purpose of Research: The purpose of this study is to assess teachers’ understanding of chronic pain and its impact on students’ functioning in order to guide the development of effective school-based interventions for students with chronic pain in the future.

Expected Duration of Study: This survey should take approximately 5-10 minutes to complete.

Procedure: As a teacher, you will be asked questions about your understanding of students with chronic pain. You will be asked to give your honest opinions and your specific answers will not be shared with anyone else. Your responses will remain anonymous and no information will be given in the report that would allow anyone to personally identify your responses.

Alternative Procedures: No alternative procedures exist in this research project.

Anticipated Risks and / or Discomfort: There are no potential risks associated with this study.

Benefits to the Participant: By participating in this research, you will be helping with development of interventions aimed at helping teachers and students with chronic pain to maximize their school success.

Confidentiality: No records of your participation in this research will be disclosed to others. Your data will be pooled with data from other research participants and only summary results will be made public. Your name will not be revealed in any document resulting from this research. Your data will be recorded anonymously. Only a randomly assigned identification number will be recorded with your data; your name or other identification will not be recorded with the data.
Contact Person for Questions or Problems: If you have questions about the research, please contact Jason Parkins, 513-535-0851, Susan Davies, Ph.D., 937-229-3652, and Mary Connolly, Ph.D., 937-229-3493.

Consent to Participate:

Teachers’ Understanding of Chronic Pain and Its Impact on Students’ Functioning

Dear Principals and Teachers:

Principals: Your teaching staff is invited to participate in a study designed to investigate teachers’ understanding of students with chronic pain and its impact on students’ functioning. Data collected will allow the researcher the opportunity to analyze current practices and training programs, with the end goal of improving interventions for students with chronic pain. The investigator will place the surveys in teachers’ mailboxes, informing them of the study and providing them with an opportunity to participate. The survey should take approximately 5-10 minutes to complete.

Teachers: You are invited to participate in a study designed to investigate teachers’ understanding of students with chronic pain and its impact on students’ functioning. Data collected will allow the researcher the opportunity to analyze current practices and training programs, with the end goal of improving interventions for students with chronic pain. Your consent to participate in this study will be indicated by your submission of a completed survey. Your participation is voluntary and you can stop answering the survey questions at any time without penalty. Each participant or program will be given a code number and all data will be reported in aggregate form. There are no potential risks associated with this study.

If you decide to participate in this study, please attempt to answer all of the survey questions. The survey should take approximately 5-10 minutes to complete.

If you have questions about the study, contact the principal researcher:

Jason Parkins  
7731 Clearwater Ct.  
Mason, OH 45040  
513-535-0851  
parkinsj1@notes.udayton.edu

Dr. Susan Davies  
300 College Park  
Dayton, OH 45469-0530  
937-229-3652  
sdavies1@notes.udayton.edu

Questions about the rights of the participant should be addressed to:
Mary Connolly, PhD
Chair, IRB
Kettering Labs Room 542
Dayton, OH 45469-0104
mary.connolly@notes.udayton.edu
APPENDIX B

SURVEY

Dear Teachers:

The following survey is designed to evaluate your awareness of chronic pain in children and adolescents and your perception of its impact on students’ academic, social, and emotional functioning. Please answer the following questions honestly and openly. Please only base your answers on your current knowledge of this issue. Your answers will be kept completely ANONYMOUS. Please note that by completing this survey you are providing your consent to participate in this study.

Thank you for your participation.

Jason M. Parkins, M.S.
1. In your opinion, how knowledgeable are you about pediatric chronic pain?

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Somewhat</th>
<th>Very Knowledgeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

2. Have you ever received formal training on the topic of chronic pain in children and adolescents (e.g., education, workshop, hands-on training, or conference)?

Yes              No

3. As a teacher, do you think the schools should provide education to its employees regarding the impact of chronic pain on children and adolescents?

Yes              No

4. Have you ever had a student in your class/school who experienced chronic pain?

Yes              No

If Yes, please answer questions 5 through 8. If No, please answer questions 9 through 11.

5. How much did chronic pain impact this child’s/children’s school attendance and academic performance?

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

6. How much did chronic pain impact this child’s/children’s social relationships and standing at school?

<table>
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<th>Not at All</th>
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7. How much did chronic pain impact this child’s/children’s emotional functioning (e.g., mood, attitude, motivation)?

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8. Did the child/children with chronic pain require any special accommodations or modifications at school?
9. In your opinion, how much can chronic pain impact a child’s school attendance and academic performance?

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10. In your opinion, how much can chronic pain impact a child’s social relationships and standing at school?

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11. In your opinion, how much can chronic pain impact a child’s emotional functioning (e.g., mood, attitude, motivation)?

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**Background Information:**

Gender (circle one) Male Female

Ethnic group/ Race ________________________________

Grade you teach this year __________________________

Other grades you have taught ________________________

Years experience working as a teacher = _________ year(s)

THANK YOU FOR YOUR PARTICIPATION!