

## RESEARCH ARTICLE

# Chronic Pain in the School Setting: The Teachers' Point of View

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**ABSTRACT**

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**BACKGROUND:** The aims of this study were to (1) examine the reactions of teachers and student teachers to children experiencing pain, (2) identify the most common challenges and potential resources that are associated to dealing with them, and (3) examine whether their responses differed as a function of their experience or sex.

**METHODS:** Forty teachers and 318 student teachers completed a survey which included descriptive information, a questionnaire that assesses different responses of participants to children who experience pain, and provides a list of problems and resources that participants might encounter and implement, respectively, when dealing with these children.

**RESULTS:** The study participants most often endorsed use of coping and health-promoting responses. Experienced teachers endorsed solicitous responses significantly more often than student teachers. Women reported responding more with solicitous responses than men. Absenteeism and the negative effect of pain on the ability of students to engage in school activities were the most common pain-related challenges mentioned by the study participants overall.

**CONCLUSIONS:** The findings emphasize (1) the need for developing guidelines to help teachers to help students experiencing chronic pain, and (2) the importance of including information about pediatric chronic pain in teachers training.

**Keywords:** teachers; chronic pain; school; children; adolescents.

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A significant number of young people have some form of chronic pain with estimates ranging from 11% to 37% depending on the studied samples.<sup>1</sup> It is a problem that can negatively affect social, emotional, and physical functioning.<sup>2-5</sup> School function can also be negatively affected by pain.<sup>6</sup> For example, students who experience chronic pain often miss school days due to medical visits or because they are unable to attend school due to the pain.<sup>7</sup> Teachers are aware of

these difficulties<sup>8</sup> and could potentially contribute to children's positive adjustment, given the large amount of time they spend with these children.

Several studies have explored the way that teachers react to their students with chronic pain, and the needs that these professionals have to support these students.<sup>9,10</sup> For example, Castarlenas et al<sup>11</sup> recently examined students' expectations about potential reactions of their teachers to classmates

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who experience chronic pain. These investigators found that, in general, teacher solicitous responses to students were more likely to be enacted in reaction to pain behaviors than other responses such as discouraging responses, eg, aversive or disheartening behaviors, or coping responses, eg, encouraging students to promote the child's adaptive behaviors.

The field of pediatric chronic pain is also beginning to develop a better understanding of the issues that are important to teachers when dealing with students who have chronic pain. For example, Logan and Curran<sup>8</sup> identified several challenges and difficulties that school personnel, ie, teachers, school administrators, school nurses, have when dealing with a student who has chronic pain. These included school absenteeism, the rarity and high degree of variability of different chronic pain conditions, the need to adhere to school policies despite the challenges associated with chronic pain, and the importance of responding to the needs of other students and dealing with parents. Logan and Curran<sup>8</sup> also identified factors that would help school personnel more effectively support these students, such as teacher education about chronic pain and closer collaboration with health care teams, among others. It would be useful to determine the generalizability of these preliminary findings, as they have important implications for the development of policies and practices regarding how to best help students who experience chronic pain.

The amount of teaching experience the teacher has is a factor that could potentially influence his/her reactions to specific situations at school. Castarlenas et al,<sup>11</sup> as noted above, found that a response thought to be less than helpful, eg, teacher solicitous responses to student pain behaviors, was among the most common responses that teachers have to students with chronic pain, at least based on student perceptions. It is possible that the teachers in Castarlenas et al's study were more likely to respond in ways that have (unintentionally) negative effects due to their lack of experience. For example, more experienced teachers may respond to students with solicitous responses less frequently than less experienced teachers. On the other hand, if teacher responses to students' pain behaviors do not differ as a function of teacher experience, then this would suggest that specific training programs that would encourage the most helpful teacher responses to students might be useful. Teaching expertise has been found to be important in other decision-making skills, eg, the development of teaching plans.<sup>12</sup> Finally, given evidence that men and women spouses and fathers and mothers respond differently to their partners or children with chronic pain,<sup>13,14</sup> it is possible that teacher sex might be another factor that influences teacher responses. However, the influence of teaching experience and teacher sex as factors that could influence how

teachers respond to students with pain have yet to be examined.

Given these considerations, the aims of this study were to (1) better understand the different types of helpful and unhelpful teacher's reactions to students with chronic pain from the perspective of both experienced teachers and students currently finishing their training at the university at the school of education, (2) identify the most common problems associated with chronic pain in students and the resources teachers think would help them more effectively to support these students, and (3) examine the potential differences in how teacher responses to students who experience pain and the problems and resources needed by teachers to better help students with chronic pain might differ as a function of (1) teacher experience, and (2) teacher sex. We hypothesized that both experienced teachers and student teachers would endorse greater frequency of coping and solicitous responses than discouraging responses to students with pain. Based on previous findings,<sup>15</sup> we also hypothesized that absenteeism would be a common pain-related problem that teachers would identify; we did not otherwise have any a priori hypothesis about what other problems teachers might identify, or what they would identify as the most effective ways to help their students with chronic pain. Finally, we hypothesized that significant differences would emerge between teachers and student teachers, as well as between men and women, with respect to their expectations regarding how they would respond to students with pain. We also anticipated that some differences between teachers versus student teachers might emerge regarding the problems and ways to best help students with chronic pain, with the experienced teachers being better able to identify different problems and potential resources, due to their greater experience. However, we did not have an a priori hypotheses regarding sex differences in the problems identified or the resources needed to address these problems, due to the lack of previous research to address this issue.

## METHODS

### Participants and Procedures

The study measures were administered to a sample of experienced teachers and to student teachers who were currently enrolled in a university's teacher education program. To recruit the experienced teachers' sample, we contacted the Department of Education of the Government of Catalonia and asked for authorization to invite schools to be part of the study. We then sent out an e-mail inviting teachers who were working (all of whom held a degree in education or master's degree in education, as this is a requirement to teach in secondary schools in

Catalonia) to participate in the study, and those who were willing and interested were invited to respond to an online survey. A total of 245 invitation emails were sent. If a potential participant had not responded to the e-mail invitation after 4 weeks following the initial invitation, we sent a reminder e-mail again inviting him or her to participate in the study. A total of 40 potential participants (16%) completed the survey. Whereas this is a low response rate, it is consistent with other survey research studies using similar strategies for subject recruitment.<sup>16,17</sup>

To recruit the student teacher sample, we asked permission from the dean of the School of Education and Psychology of the Universitat Rovira i Virgili (URV), Catalonia to recruit from university students enrolled in teacher education programs. After approval from the dean, we contacted university professors who taught in the university teacher education programs, and asked their permission to attend a class, invite the students in their classes to participate, and administer a paper-and-pencil version of the survey study during class time. In all, 324 students in 9 classes were contacted and 318 (98%) of these completed the survey. The School of Education and the Human Subjects Review Committee of the URV approved all study procedures (Comité d'Ètica d'Investigació Clínica; Ref.: 12-01-26/1proj1).

## Measures

**Teachers' responses to a student experiencing pain.** We used the Teacher Response to Children's Pain Inventory to assess the potential participants' responses to children experiencing pain. The name of this measure in Catalan is the "Inventari de Respostes dels Professors davant l'Experiència de Dolor de Nens i Adolescents", and so we used the acronym IRPEDNA-P for this measure in the current study. The IRPEDNA-P has 24 statements that describe different reactions to children's pain behaviors and actions, and the respondent is asked to indicate how often he or she enacts each one on a 5-point Likert rating scale (never, hardly ever, sometimes, often, or always). The items can be scored into 3 scales: Solicitousness, eg, "I allow a student in pain to skip difficult school activities," Discouraging, eg, "I do not think his/her pain is something important because I think he/she is exaggerating a bit," and Promotion of Well-Behaviors and Coping, eg, "I try to distract him/her to avoid his/her paying attention to the pain problem." Each scale score is computed as an average of the items associated with each scale; higher scores indicate a greater tendency to give solicitous, discouraging, or coping responses. Participants who had no previous experience with children experiencing chronic pain were asked to use the measure to indicate how they thought they would respond in the future to a student experiencing

chronic pain. In our sample, the IRPEDNA-P showed a good reliability/internal consistency (with Cronbach's alphas of .82 for solicitousness, .88 for discouraging, and .83 for coping and promoting health behaviors subscales).

**Development of the IRPEDNA-P.** The IRPEDNA-P is a self-report measure derived, in part, from another instrument that we had developed to study the adults' (parents or caregivers) responses to children and adolescents with pain (IRPEDNA<sup>18</sup>). For the development of the IRPEDNA-P, we started with a pool of 48 items, half of which were chosen from the original version of the IRPEDNA, which were considered appropriate for their use with teachers and in the school setting, whereas the other 24 were newly developed by a panel of experts in pediatric chronic pain. These new set of statements about potential reactions from teachers to their students' pain were expressed in a similar manner as those included in the original IRPEDNA. First, we developed an analysis of the items to select the best ones among those 48 statements. Two criteria that had been used previously by other studies<sup>19,20</sup> were used to make this selection: (1) the item had to be correlated at .30 or greater with its parent scale (minus that item), and (2) there had to be a minimum difference of .10 between the item-parent scale correlation and the correlation between the item and each of the other scales. After applying those criteria, 36 items were included in the final pool of items whereas 12 were deleted because they did not fit the criteria. Then, for each scale, the 8 items with the higher correlation with the parent scale were chosen and the item analysis resulted in a final version of 24 items. We then conducted a confirmatory factor analysis (CFA) to determine if the factor structure of the IRPEDNA-P was the same that the structure of the original IRPEDNA (with the 3 scales, solicitousness, discouraging, and promotion of well-behaviors and coping). We used maximum likelihood with mean adjusted (MLM) as extraction method, because the analysis of skewness (−.78 to 1.84) and kurtosis (−1.22 to 3.64) of each item showed that their distribution was non-normal and this method does not assume normality. We found that the goodness of fit was acceptable according to root mean square error of approximation (RMSEA) = .06 and root mean square residuals (SRMR) = .07, even though the comparative fit index (CFI = .86) was lower than expected (.90).

**Problems when dealing with student with chronic pain.** Based on the results of a focus group made up of school personnel<sup>8</sup> and our clinical experience with young people with chronic pain, we developed a list of 11 potential problems to assess the difficulties that teachers might have when trying to help students experiencing chronic pain: (1) students' absenteeism, (2) difficulties in helping students perform activities related to school work, (3) students demanding they

be treated differently due to their pain condition, (4) a teacher's lack of knowledge about diseases that may cause chronic pain, (5) a teacher's lack of knowledge about the definition of chronic pain and its effect, (6) problems with making needed accommodations for students with chronic pain; for example, adapt certain gym activities or exercises, (7) difficulties in facilitating interactions with peers; (8) difficulties in being able to provide suitable information to other students, (9) problems with balancing the needs of a student with chronic pain with the needs of the students without chronic pain, (10) difficulties associated with developing a shared understanding of the problem with parents, and (11) problems with promoting a school policy that facilitates the integration and adaptation of children with chronic pain. Participants in the study were asked to indicate which of these problems they had encountered; they could indicate as many problems as they thought might be present. Student teachers or experienced teachers who did not have any previous experience with students who had chronic pain were asked to indicate problems they thought they would encounter, if they had a student with chronic pain in the classroom.

***Resources that teachers believed might help when dealing with students who have chronic pain.*** A list of resources that could potentially help teachers provide more effective responses to the needs of students experiencing chronic pain was developed based on the results of the study by Logan and Curran<sup>8</sup> who had interviewed a group of experienced school personnel. The list included the following resources: (1) having suitable knowledge about the definition and effect of chronic pain, (2) having clear instructions (guidelines) regarding how to help students who experience chronic pain, (3) how to effectively collaborate with and elicit support from health care professionals, and (4) how to effectively collaborate with the student's families. Participants could choose 1 or more among these options. Participants without experience with students with chronic pain were asked to indicate which of these they thought would be most helpful for them in the future, when they did have a student with chronic pain in their classroom.

### Data Analyses

We first checked the distribution of the 3 IRPENDNA-P scales scores for normality, and found them to be adequately normal (skewness range,  $-.38$  to  $1.19$ ; kurtosis range,  $-.10$  to  $1.50$ ). To test the a priori and exploratory study hypotheses regarding responses to student experiencing chronic pain, we performed 3 analyses of variance (ANOVAs), with response to student as the dependent variable and 3 independent variables: (1) type of response (solicitous, discouraging, and coping), (2) teacher experience (experienced/working teachers, student teachers), and

(3) teacher sex (men, women). We conducted t-tests to compare the mean of the 3 kinds of responses if the hypothesized significant main effects for response type and for sex emerged. To test the second hypothesis that absenteeism would be among the most common pain-related problems identified by the study participants, and to identify the frequency of the other problems and useful resources endorsed by the study participants, we computed the number of times and corresponding percentages that participants endorsed the problems and resources. Finally, to determine if there are differences in the endorsement of specific problems or resources needed as a function of either teacher experience or teacher sex, we performed a series of chi-square analyses with endorsement rate (of the problem or resource) as the dependent variable, and teacher experience (currently working teacher, student teacher) and teacher sex (men, women) as the independent variables. Analyses were computed using SPSS 17.0 (IBM, <http://www-01.ibm.com/software/analytics/spss/>; Armonk, NY; USA).

## RESULTS

### Description of the Sample

Forty experienced (and currently acting) teachers and 318 student teachers participated in the study. Most of the experienced teachers sample were women (83%) in their forties (Mean age = 41.40 years old, SD = 8.74) who were teaching at secondary schools (65%) and had a great deal of teaching experience (mean years of teaching = 14.41 years, SD = 9.40). Thirty-four percent of these reported having experience with students who had chronic pain. Most student teachers sample was also women (88%). Their average age was 23.75 years (SD = 5.45), 91% were enrolled in a bachelor's degree program, and the remainder in a master's degree program. Eighty percent of the students had been involved in at least one school placement, and 9% noted they had experience with students who had chronic pain (Table 1).

### Reactions of Teachers and Student Teachers to a Child With Pain

A significant main effect for response type ( $F(2,319) = 187.68, p < .001$ ) emerged in the analyses of reactions. The t-tests indicated statistically significant differences between all 3 pairs of scale scores, with coping responses (mean = 2.53, SD = .64) occurring significantly more often than either solicitous responses (mean = 2.02, SD = .65;  $t(323) = 11.64, p < .001$ ) or discouraging responses (mean = .61, SD = .58;  $t(323) = 41.78, p < .001$ ). Responses reflecting solicitous responses were also more frequent than discouraging responses ( $t(323) = 26.93, p < .001$ ; Figure 1).



Table 1. Characteristics of the Samples

Sample 1	Teachers (N = 40)
Age, mean (SD)	41.40 (8.74)
Women	83%
Experience with students with chronic pain	34%
Years of teaching experience, mean (SD)	14.41 (9.4)
Teaching level	
Preschool level	5%
Preschool + Primary level	8%
Primary level	22%
Secondary level	65%
Sample 2	Student Teachers (N = 318)
Age, mean (SD)*	23.75 (5.45)
Women	88%
Experience with students' chronic pain†	9%
Training in school placements	80%
Undergraduates' year N = 288	
First year	1%
Second year	41%
Third year	32%
Fourth year	26%
Masters' degree year N = 28	
First year	100%

\*Information missing in 2 cases.

†Information missing in 5 cases.

### Problems of Teachers and Student Teachers When Students Have Chronic Pain

As predicted, absenteeism was among the most common pain-related problems that teachers and student teachers endorsed (68% and 58%, respectively). Also common was the negative effect of pain on the ability of students to engage in certain activities (53% vs 60%). Four problems that were also commonly endorsed were the lack of knowledge about diseases that may cause chronic pain (43% vs 52%), the lack of knowledge about what is and what means having chronic pain (38% vs 47%), problems with making adjustments for chronic pain students (47% of students) and problems promoting a school policy that facilitates the integration and adaptation of children with chronic pain (43% vs 34%). The difficulties that were less frequently mentioned by participants (below 30%) were students' demands of being treated differently due to the pain condition (15% vs 11%), problems making adjustments for chronic pain students (20% of teachers) and difficulties associated with a shared understanding of the problem with parents (15% vs 25%; Figure 2).

### Resources to Help Teachers and Student Teachers When Students Have Chronic Pain

The resource endorsed most often by teachers was having specific guidelines to learn what to

Figure 1. Teachers' and Student Teachers' Responses to Students' Pain Behaviors

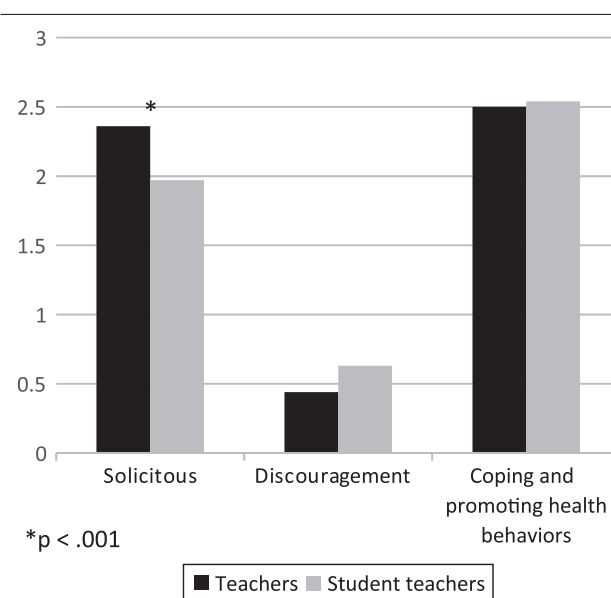
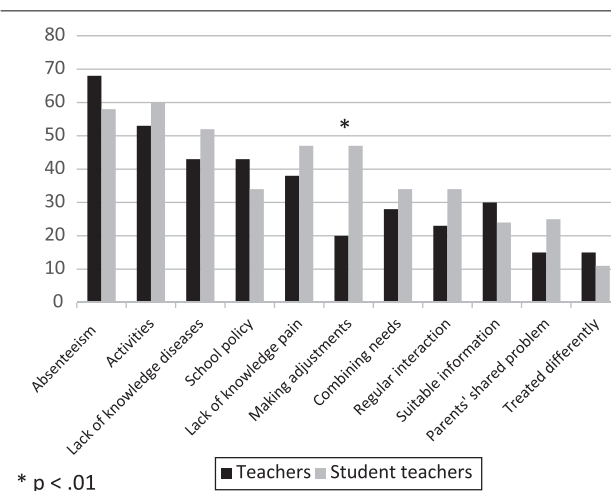
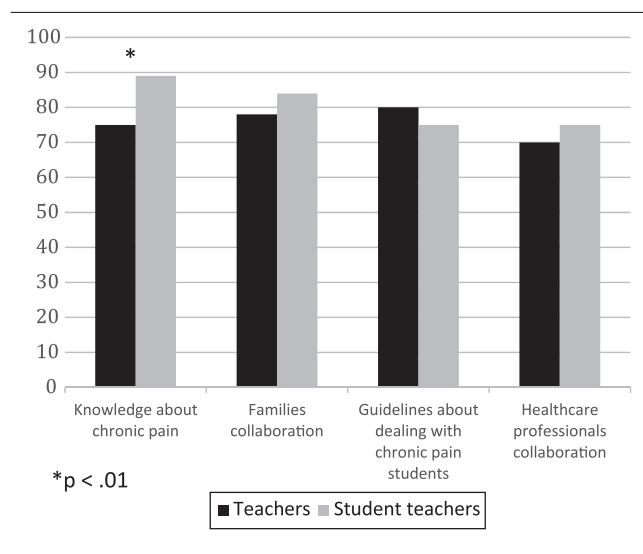


Figure 2. Group Differences Between Teachers and Student Teachers on Problems



do with a chronic pain student (80%). For the student teachers, having suitable knowledge about what chronic pain is and its effect on the schoolchild was the most frequently indicated resource (89%). Developing better collaboration with families was the second most commonly indicated resource for both groups (78% of teachers, 84% of student teachers). Even though collaboration and support from health care professionals was among the least frequently indicated resource by both groups, it was still selected by a majority in both groups (70% and 75% of teachers and student teachers, respectively). Having specific

Figure 3. Group Differences Between Teachers and Student Teachers on Resources



guidelines was also the least commonly selected resource (75%) by students (see Figure 3 for additional details).

### Effects of Teacher Experience on Responses, Problems, and Resources

No significant main effect was found between teachers and students with respect to how they would respond to students experiencing chronic pain ( $F(1) = 1.46, p > .05$ ). However, a significant Response Type X Teacher Experience interaction effect did emerge ( $F(2,319) = 5.68, p < .01$ ). The post hoc test comparing the teachers' and students' solicitous, discouraging, and coping responses showed that teachers endorsed solicitous responses more often ( $t(322) = 3.62, p < .001$ ) than student teachers. No other significant differences emerged (Figure 1).

No significant differences between teachers' and students' percentages were found for the rates of responding to either difficulties or resources, except for the difficulty of developing accommodations for chronic pain students ( $\chi^2 = 10.85, p < .01$ ) and the resource of having suitable chronic pain knowledge ( $\chi^2 = 6.70, p < .01$ ). The rates of endorsement of these were lower (20% and 75%) for the experienced teachers than for the student teachers (47% and 89%). No significant differences between teachers' and students' percentages were found for the rates of responding to either difficulties or resources, except for the difficulty of developing accommodations for chronic pain students ( $\chi^2 = 10.85, p < .01$ ) and the resource of having suitable chronic pain knowledge ( $\chi^2 = 6.70, p < .01$ ). The rates of endorsement of these were lower (20% and 75%) for the experienced teachers than for the student teachers (47% and 89%).

### Effects of Participant Sex on Responses, Problems, and Resources

No significant main effect was found between women and men in terms of their reported responses to students experiencing chronic pain ( $F(1) = 3.19, p > .05$ ). Nevertheless, there was a significant Response Type X Sex interaction effect ( $F(2, 319) = 6.07, p < .01$ ). The post hoc tests indicated that women reported responding more than men with solicitous responses ( $t(322) = 2, p < .05$ ) and that they made fewer discouraging responses than men ( $t(43.67) = 3.36, p < .01$ ). No significant differences appeared for coping responses. Another significant interaction between effect was found for Teacher Experience and Sex ( $F(1) = 7.54, p < .01$ ). However, although an examination of the means showed that among women, experienced teachers showed slightly more responses overall (mean = 1.83,  $SD = .37$ ) than student teachers (mean = 1.70,  $SD = .36$ ;  $t(283) = 1.98, p > .05$ ), while among men experienced teachers reported *less* responding to student pain behaviors than student teachers (teacher's mean = 1.45,  $SD = .77$ ; student teacher's mean = 1.79,  $SD = .40$ ;  $t(6.73) = 1.13, p > .05$ ), in both women and men, the differences in frequency of responding to student pain behaviors as a function of teaching experience were not statistically significant. Finally, the 3-way Response Type X Teacher Experience X Sex interaction was not statistically significant ( $F(2, 319) = .07, p > .05$ ).

In addition, we did not find any significant differences between women and men percentages of responding rates to difficulties or resources except for the difficulty of students demanding they be treated differently because of their pain conditions ( $\chi^2 = 4.06, p < .05$ ). Women showed higher rates of endorsement of this difficulty than men (12% vs 2%).

### DISCUSSION

In this study, we examined the responses of experienced teachers and student teachers to children with chronic pain, and identified (1) some common problems they associated with dealing with children with chronic pain in the school setting, and (2) resources that they would find useful for supporting schoolchildren experiencing chronic pain. We also examined differences in potential responses, problems and perceived resources between experienced teachers and student teachers and differences on responses and one specific problem between men and women.

The findings confirmed the study hypothesis. Specifically, the results show that coping responses were the responses endorsed the most by teachers and student teachers to children who experience chronic pain, followed by solicitous, and discouraging responses. These results are in line with those from Castarlenas et al's study<sup>11</sup> that showed that adolescents

expect their teachers to react to their classmates' pain behaviors with solicitous or coping responses more frequently when students have chronic pain than when they have not. Studies including parents of children who have chronic pain have found that discouraging and solicitous responses are related to negative outcomes, eg, children having higher levels of pain intensity and disability or depression and anxiety.<sup>21-23</sup> On the other hand, coping responses have been found to be predictive of lower pain intensity and/or disability, as well as an array of somatic symptoms, depression or anxiety.<sup>24,25</sup> In this study, experienced teachers reported responding to students with chronic pain using with solicitous responses more often than student teachers. Although additional studies are needed, if these results are confirmed in future research, this would support the importance of providing explicit training to teachers or student teachers so that they can react in ways that are best suited for facilitating their students' adjustment.

Our samples of teachers and student teachers identified several problems that should be addressed with respect to ways that teachers may most effectively help students experiencing chronic pain. The findings highlighted absenteeism and the negative effect of pain on the ability of students to engage in certain activities as the most important problems that children who have chronic pain face. This is consistent with other studies reporting these as important difficulties in young people with chronic pain.<sup>7,26,27</sup> Future researchers should look at developing and evaluating strategies that teachers may use to help their students experiencing chronic pain cope with absenteeism.

When we asked what resources would be useful for them, experienced teachers suggested that having specific guidelines to know what to do with a student who has chronic pain as most important, whereas student teachers chose having suitable knowledge about what chronic pain is and its effect on children as their most important resource. One other important resource, rated as second most important by both groups, was developing a better collaboration with families. Collaboration and support from health care professionals was among the least frequently selected resources; however, it was still commonly selected. These results are consistent with those reported by Logan and Curran.<sup>8</sup> Experienced teachers, in comparison with student teachers, mentioned the problem of "developing accommodations for chronic pain students" and the resource of "having suitable chronic pain knowledge" less frequently. The lower teacher interest about that problem could be explained by experienced teachers thinking, that since they are more skilled in developing accommodations, in fact, they may have done some for children with other conditions (such as cerebral palsy, attention deficit hyperactivity disorder or heart disease). On the other

hand, their lower interest in having such a resource, could be understood because they might have higher chronic pain-related knowledge. This knowledge could have been acquired by their own chronic pain experience given that the prevalence of chronic pain increases with age.<sup>28</sup> However, future studies will have to confirm these hypothesized explanations.

As hypothesized, sex was found to have an effect on teachers' responses to children who experience chronic pain. Women reported solicitous responses more often than men and discouraging responses less often than men. These results are in line with a previous study that assessed fathers' and mothers' responses to their children's pain behaviors.<sup>14</sup> In the current study, another difference between women and men emerged about perceived difficulties when dealing with students experiencing pain. Specifically, women endorsed the difficulty "students demanding they be treated differently due to their pain condition" more often than men. This finding might be related to the finding that women tend to respond more solicitously than men;<sup>13,14</sup> as women respond more solicitously, they may be more worried than men about a problem related to giving solicitous responses "giving a special treat due to chronic pain."

### Limitations

The study has some limitations that should be considered when interpreting the results. First, few of the teachers (34%) and student teachers (9%) reported having had experience with children or adolescents who experience chronic pain. Thus, it is unclear whether participants' responses would have been different had they had more extensive experience with young people with chronic pain. Additional research is needed to determine not only the effects of more teaching experience in general but also the effects of experience with children who have chronic pain. Second, although the sample size of student teachers is appropriate for the objectives of the study, the number of experienced teachers ( $N = 40$ ) in the study sample is limited. Therefore, future studies are required with more participants to help determine the generalizability of the findings. Moreover, most of the participants were women, thus also limiting the generalizability of the findings. Third, the survey was administered using 2 different formats: online and paper-and-pencil. The paper-and-pencil situation allowed participants to ask questions of the research staff while they were answering the survey, which could have facilitated solving any problem they encountered during administration. However, the participants who used the online format (experienced teachers) would have to make a phone call or send an e-mail had they had any problem in responding to the survey and none of the teachers choose to do this.

This may have had a very limiting biasing effect on the findings, however, as very few comments or questions were made to or asked of research staff during the paper-and-pencil survey administration.

## Conclusions

Participants supported coping and promoted healthy responses to student pain most often than discouraging responses. Experienced teachers and women endorsed solicitous responses significantly more often than student teachers and men. Otherwise, men reported more discouraging responses than women. The most common pain-related challenges mentioned by the study participants were absenteeism and the negative effect of pain on the ability of students to engage in certain activities. Teachers' preferred resource was having specific guidelines for helping students with pain whereas having suitable knowledge about chronic pain was the preferred resource need of student teachers.

## IMPLICATIONS FOR SCHOOL HEALTH

The findings from this study have important implications for understanding how teachers respond to students who have chronic pain, and for developing guidelines and policies for facilitating teacher responses that will maximize the children's functioning. Our data indicate that special efforts should be made to help teachers to reduce absenteeism of children with chronic pain and to deal with certain academic and school activities that may interfere with their student adjustment, eg, performing physical activities and sports or having to spend extended periods of time seated during class. Furthermore, both teachers and their students who have chronic pain would likely benefit from the development of specific guidelines that could help teachers identify what to do in response to schoolchildren experiencing chronic pain and increase teacher collaboration with families and health experts. Moreover, basic information about pediatric chronic pain and providing training in helpful coping responses should be included within the core subjects of the teachers' education programs to improve their ability to deal most effectively with schoolchildren with chronic pain.

## Human Subjects Approval Statement

The School of Education and Psychology Human Subjects Review Committee of the URV approved all study procedures.

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