

# DO PEERS AND TEACHERS REACT THE SAME TO CHILDREN WITH CHRONIC PAIN AND HEALTHY CHILDREN?

E. Castarlenas<sup>1</sup>, E. Solé<sup>1</sup>, A. Huguet<sup>2</sup>, J. Miró<sup>1</sup>

<sup>1</sup>Unit for the Study and Treatment of Pain, and ALGOS, Dept. of Psychology, Universitat Rovira i Virgili, Tarragona, Spain, <sup>2</sup>IWK Health Centre, Halifax, Canada

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## INTRODUCTION

Social interactions play a significant role in children development. Sick children may have trouble with social interactions due to the many difficulties posed by their health conditions (e.g., fewer opportunities to play with classmates because of having to stay at home and/or in bed) [1]. In the field of pediatric chronic pain, a few studies are beginning to explore child-peer and child-teacher interactions and their relationship with the experience of pain. Briefly, studies on the child-peer relationships show that schoolchildren believe that their peers with chronic pain have poorer social networks, they are seen more isolated and shy, and less chosen as best friends [2]. Studies focusing on child-teacher relationships suggest that teachers' responses to children with chronic pain may be influenced by several factors such as the characteristics of chronic pain (i.e., existence of physical findings to explain the problem) [3]. Due to the relevance of social interactions, it is important to learn how teachers and peers react to schoolchildren with chronic pain in the school setting since school-age children spend a great deal of time at school.

This study was designed (1) to explore whether children perceive that their peers' and teachers' reactions to classmates with and without chronic pain are different or the same, and whether these reactions might be related to the sex and pain condition of the respondent; and (2) to analyse if peers' and teachers' reactions to classmates suffering from chronic pain might be associated with the sex and the pain condition of the respondent, and/or with the sex of the classmate with chronic pain.

## METHODS

### Sample

Participants were a convenience sample of 213 children, enrolled in three public schools, from grades 4 to 11 (55.4% males, range of age: 8-16 years; mean=11.01, Sd=1.77).

### Measures

**-An Inventory of Peer and Teacher Responses to the Classmate's Pain Experience** was used to assess children perceptions of their peer's and teacher's reactions to students with chronic pain problems. It has two forms (peer and teacher-related), and each one is compound by 22 items, 16 of them were extracted from The Inventory of Parent/Caregiver Responses to the Children's Pain Experience (IRPEDNA) [4], the other items were newly created.

Participants were asked to report how they believe their peers and teachers would react to the specific character portrayed in the vignette accompanying the Inventory. There were four different characters that were used in this study: a boy with chronic pain, a girl with chronic pain, a boy without chronic pain, and a girl without chronic pain; a vignette was randomly assigned to each participant who had to respond to the peer's and teacher's forms on the basis of that same vignette. As it is the case with the IRPEDNA, each form of the Inventory encompasses three subscales, related to the nature and characteristics of the responses: solicitousness (i.e., to attend kindly to the children's pain behaviors), discouragement (i.e., to show disapproval to the children's pain behaviors) and promotion of well-behaviors and coping (i.e., to encourage children to enact adaptive behaviors).

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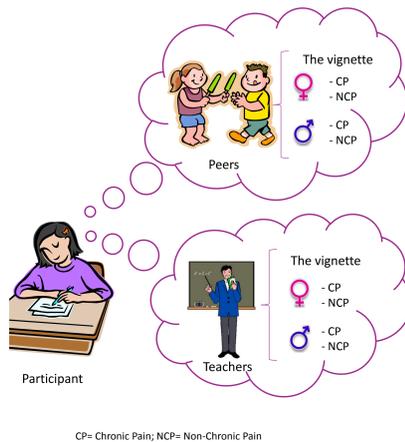
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CP= Chronic Pain; NCP= Non-Chronic Pain

## RESULTS

### Peer's form

Mean differences were only found when reactions to the chronic pain vignette were analyzed on the basis of participant's sex (see Table 1). Specifically, females believed that their peers would react with more solicitousness, less discouragement and more promotion of well behaviors and coping when interacting with classmates who suffer chronic pain problems than males.

### Teacher's form

Participants thought that their teachers would provide more solicitousness, less discouragement and more promotion of well-behaviors and coping to students with chronic pain in comparison to those without pain. A similar pattern of results was found when the analyses were performed considering separately the sex of the participants and their pain status (that is, whether they had chronic pain or not; see Table 1).

When the analyses were performed only for reactions to the vignette portraying a student with chronic pain, female participants believed that their teachers would react with less discouragement responses. No other differences between males and females were observed in any of the other two subscales.

Table 1. Peer's and Teacher's results.

	SAMPLE	VIGNETTE	INVENTORY SUBSCALES					
			Solicitousness (t)		Discouragement (t)		Promotion of well behaviours and coping (t)	
			Peer Form	Teacher Form	Peer Form	Teacher Form	Peer Form	Teacher Form
Participants responding to the Chronic and Non-Chronic Pain vignette	All participants (n=213)	Chronic pain (n=111) Non Chronic pain (n=102)	1.50	-8.10***	0.27	16.72***	0.31	-7.40***
	Participants without chronic pain (n=155)	Chronic pain (n=82) Non Chronic pain (n=73)	1.37	-6.84***	0.46	13.48***	-0.001	-7.59***
	Participants with chronic pain complaints (n=56)	Chronic pain (n=28) Non Chronic pain (n=28)	0.56	-3.96***	-0.44	7.80***	0.40	-2.41**
	Female participants	Chronic pain (n=51) Non Chronic pain (n=44)	0.046	-5.72***	1.29	13.27***	-0.67	-6.70***
Participants responding to the Chronic Pain vignette	Male participants	Chronic pain (n=60) Non Chronic pain (n=58)	1.64	-5.73***	-0.65	9.71***	0.60	-4.90***
	Without chronic pain (n=82)	Chronic pain	0.68	1.84	-0.06	-0.72	1.24	1.90
	With chronic pain (n=28)	Chronic pain	-2.32*	-0.27	3.15*	2.55**	-2.89*	1.65
	Female participants (n=51)	Chronic pain	-0.58	-0.22	-1.22	-0.49	1.02	-0.66
	Male participants (n=60)	Chronic pain	-0.14	0.81	-1.30	-0.96	1.20	0.60
	All participants	Chronic pain-female (n=60) Chronic pain - male (n=51)	-0.18	-0.943	-1.28	-0.20	0.90	-0.95

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

## CONCLUSIONS

✓ Our results have shown that participants believe that teachers would react somewhat different when dealing with children suffering from chronic pain, as compared to their reactions towards non-chronic pain sufferers. However, peers were thought to react the same regardless of the (chronic pain) condition of their classmates.

✓ Differences in reactions are not related to the participants' pain condition, but males and females participants thought that their peers would react differently to their classmates suffering from chronic pain, a result that has already been found in previous studies [5]. These differences were just found in the discouragement subscale when looking at the responses given to their teachers' reactions.

✓ This is an exploratory study, with certain limitations that must be acknowledged. First of all, we are uncertain if these results are isomorphic to reality. Future studies would have to address this specific issue by looking into the reactions of peers and teachers in situations in which they interact with real children suffering from chronic pain. Second, social desirability, might have played a role in participants responding in one way or another. For example, although participants did not believe that teachers would react the same in front of students with and without chronic pain, they thought that peers would behave very similar regardless of the condition of the child. Maybe they believe that is what is expected from them: not to react differently to avoid stigmatization.

✓ Further research is needed to understand how social interactions at school may influence functioning of children with chronic pain and their development. This information might have strategic value to design interventions to prevent further damage in these children.

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