

# PAIN IN CHILDREN WITH COGNITIVE IMPAIRMENTS: THE IMPACT OF CHILDREN'S VERBAL ABILITIES ON PAIN RATINGS AND PERCEIVED NEED FOR ASSISTANCE BY CAREGIVERS

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## Introduction:

- Everyday pain is common for children with cognitive impairments; caregivers are often responsible for effective pain assessment and management (Stallard et al., 2001; Dubois et al., 2010)
- Previous research has focused on beliefs and pain assessment / management abilities of primary caregivers; children with cognitive impairments commonly receive care from secondary caregivers (e.g., respite workers; Shelton & Witt, 2011)
- Compared to inexperienced individuals, respite workers perceive a larger percentage of children with severe CI sense less pain than typically developing children (Genik, McMurtry, & Breau, October 2013; manuscript in preparation).

Participants: *not all participants answered all demographic questions	Students (N = 217)	Respite Workers (N = 56)
<b>Age (years)</b>	• Range: 19 - 31 • M = 19.63	• Range: 18 - 67 • M = 33.37
<b>Sex</b>	• 41 M; 175 F	• 10 M; 46 F
<b>Ethnicity</b> • European-Canadian/White	• 173 (79.7%)	• 48 (85.7%)
<b>Frequency of Interaction with CI/NV</b> • Never/Rarely • Occasionally/Often/ Very Often	• 200 (92.2%) • 17 (7.8%)	• 2 (3.6%) • 54 (96.4%)
<b>Intensity of Involvement with CI/NV</b> • 0 (Not at all involved) – 5 • 6 – 10 (Highly involved)	• 200 (92.2%) • 17 (7.8%)	• 10 (17.9%) • 45 (80.4%)

Table 1. Selected participant demographics by group; CI/NV = children with cognitive impairments who are nonverbal.

(1) + (2) Verbal ability of the child showed no effect on ratings of pain intensity [ $F(1, 266) = .53, p = .466$ ] or need for attention [medical:  $F(1, 247) = .10, p = .757$  or other:  $F(1, 250) = .81, p = .369$ ]. Further, there was no significant interaction of verbal ability with participant group for any of the ratings (all  $F$ 's < 3,  $p > .05$ ).

(3) No differences were found between respite workers and undergraduate students for ratings of pain intensity and need for other attention.

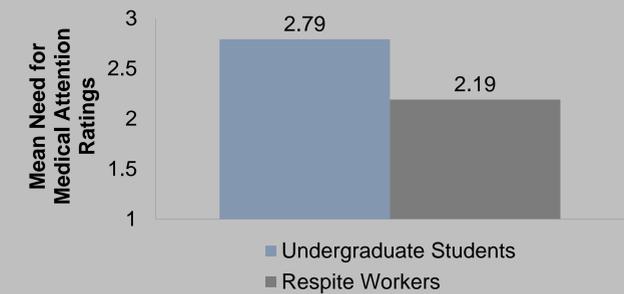
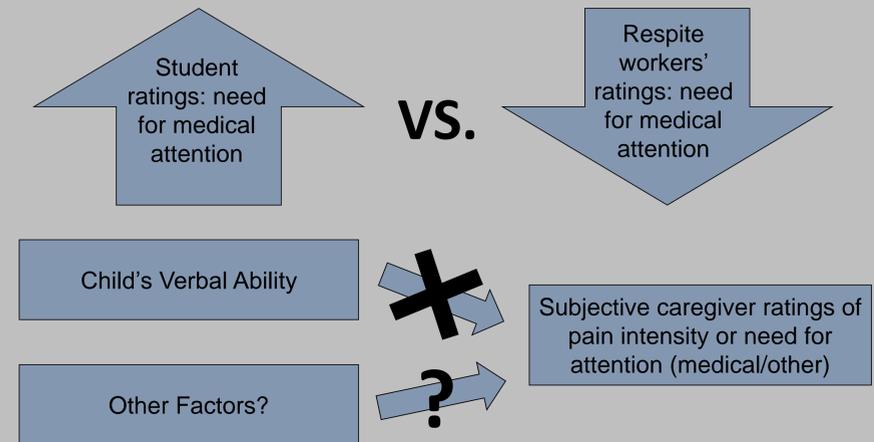


Figure 1. Main effect of participant group on mean ratings of perceived need for medical attention,  $F(1, 247) = 7.87, p = .005^{**}$

## Discussion:

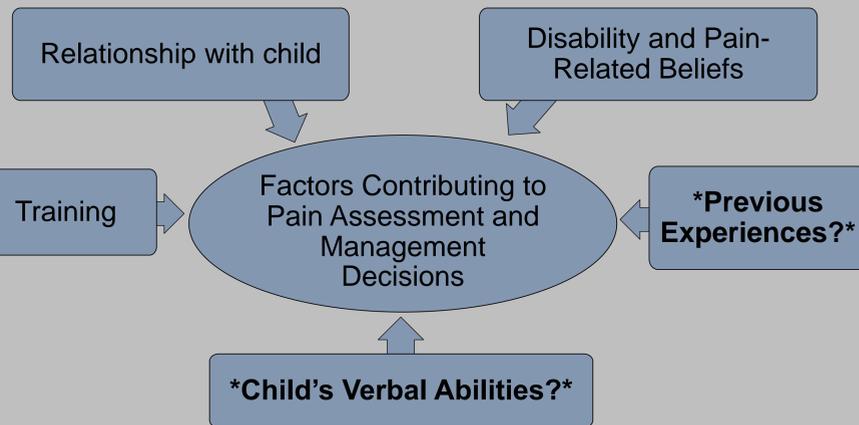


### Future Research

- Investigation into whether caregivers' perceptions of pain intensity and need for attention may impact a child's likelihood of receiving adequate medical attention
- Explore applications of this research in relation to the development and implementation of educational pain-training programs for respite workers

### Limitations

- Reported ratings and responses may not translate to actions
- Mean age and sample size differences between groups could have influenced the results
- The full-length survey was quite long and may have impacted quality of responses



## Sample Vignette:

"Taylor is a 10-year-old child who receives respite care. Taylor has a cognitive impairment and is (verbal/nonverbal). Taylor suffers from occasional headaches which develop suddenly and last for a few hours at a time. When experiencing a headache, Taylor usually squinches his/her eyes and whimpers. Taylor also becomes withdrawn from others. While getting ready for bed with her/his respite provider, Taylor stops what she/he is doing and begins to groan. Taylor also appears restless and uninterested in completing his/her bedtime routine."



## Results:

- Analyses included three mixed ANOVAs for pain intensity, need for medical attention, need for other attention (between subjects: participant group; within subjects: verbal ability)

Rating Variable:	Verbal Ability:	Students	Respite Workers
Pain Intensity	Verbal	5.01	4.92
	Nonverbal	4.75	5.03
Need for Medical Attention	Verbal	2.83	2.11
	Nonverbal	2.74	2.27
Need for Other Attention	Verbal	5.40	5.97
	Nonverbal	5.39	5.75

Table 2. Mean ratings on a 0 – 10 scale by students (N = 217) and respite workers (N = 56) on pain intensity, need for medical attention, and need for other attention for vignettes of children who are verbal and nonverbal.

## Objectives:

- (1) Determine if caregiver ratings of pain intensity were impacted by whether a child with CI was verbal or nonverbal.
- (2) Determine if caregiver ratings of need for medical and other attention were impacted by whether a child with CI was verbal or nonverbal.
- (3) Determine if ratings of pain intensity and need for attention (both medical and other) varied between: a) undergraduate students (UG) with little to no experience supporting children with CI and b) RW with direct experience supporting children with CI.

## Procedure:

- 30 minute online survey (part of a larger study)
- Participants read six situational vignettes (3 with children with CI who were verbal; 3 with children with CI who were nonverbal; age and sex not specified) and were asked to rate perceived pain intensity and need for attention