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Individual and contextual factors shaping teachers' attitudes and responses to bullying among young children: Is education important?

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Disciplines

Education | Social and Behavioral Sciences

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Abstract

This study examined how pre- and post-service early childhood teachers' beliefs and responses to bullying among young children differ by level of qualification, type of bullying and whether or not it was witnessed. Results showed 1st and 4th-year student- and diploma-qualified teachers perceived acts of physical bullying to be more serious than verbal or relational bullying to a greater extent than did degree-qualified teachers. Degree-qualified teachers were less susceptible to bullying type and indicated they would be more likely to intervene than the other three groups. Results are discussed in relation to their implication for teaching practice and the content of pre-service education.

Keywords : bullying, teacher attitudes, early childhood, teacher qualifications, victimization

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Contemporary studies from around the world underscore the rising prevalence and negative impact of bullying among children (Jimerson & Huai, 2010; Lee, Smith, & Monks, 2011; Monks, Smith, Naylor, Barter, Ireland, & Coyne, 2009; Murray-Harvey, Slee, & Taki, 2010; Reijntjes, Kamphuis, Pronzie, & Telch, 2010). Bullying typically refers to physical or psychological aggressive behaviours that intentionally cause hurt or harm to another child, are typically repeated overtime, evolve from a position of power and are often used to establish dominance within the peer group (Olweus, 2010). The negative consequences for children who are bullied are far reaching, including depression, loneliness, low-self-esteem, social withdrawal, anxiety, disengagement from school, poor academic performance, delinquency, physical health issues, sleep disturbances and suicidal ideation (Jimerson, Swearer, & Espelage, 2010; Reijntjes et al., 2010). Although most research on bullying focuses on school-age children, there is mounting empirical evidence suggesting the presence of bullying behaviour among children as young as 4 years of age (Alsaker & Valkanover, 2001; Barker, Boivin, Brendgen, Fontaine, Arseneault, Vitaro, Bissonnette, & Tremblay, 2008; Lee et al., 2011; Monks, Ortega Ruiz, & Torrado Val, 2002; Nordhagen, Neilsen, Stigum, & Köhler, 2005; Shin & Kim, 2008).

Researchers who have examined bullying among children differentiate among the different forms. Direct bullying involves face-to-face encounters between the bully and the victim. This includes physical aggression such as punching and kicking as well as direct verbal aggression such as name-calling (Ostrov, 2006). Indirect bullying or relational bullying involves more covert means of aggression and includes harm caused through the damaging of peer relationships, manifested through social exclusion or spreading rumours (Monks & Smith, 2006; Ostrov, 2006).Where once researchers and practitioners believed the early childhood context to be immune from such negative and purposeful interactions, a review of research conducted with younger children suggests bullying is prevalent among both preschool and kindergarten children (Rigby, 2002).

While individual, familial and school factors have long been the focus of intervention studies, more recent research has examined the potential role that teachers play in shaping children's peer context (Kochenderfer-Ladd & Pelletier, 2008; Reavis, Keane, & Calkins, 2010; Yoon & Kerber, 2003). Teachers' responses to bullying are important in constructively addressing negative behaviours and creating a safe learning environment for all children.

Nonetheless, research has shown that teachers do not intervene in response to many incidents of child bullying (Craig, Henderson, & Murphy, 2000). This study represents one of the first attempts to examine factors that shape early childhood teachers' attitudes and responses to incidents of bullying in young children. Since teachers' beliefs about bullying may directly impact their willingness to intervene and their approach to intervention, studies that assess factors that may shape these attitudes will add to our understanding and contribute toward the development of more effective teacher intervention efforts.

Despite the paucity of early childhood bullying research, studies conducted with younger children not only highlight the rising prevalence of bullying, but also the complex ways in which it is manifested and the different roles that young children undertake (Alasker & Gutzwiller-Helfenfinger, 2010; Kochenderfer & Ladd, 1996). International statistics show that between 10 and 20 percent of children aged 4 to 6 years are at risk of becoming a bully or victim (Monks et al., 2002; Nordhagen et al., 2005; Perren & Alsaker, 2006). Given the significant short- and long-term negative outcomes associated with bullying it is time that researchers paid greater attention to the prior-to-school context in an effort to stop bullying before it becomes an ingrained feature of the peer context.

Teachers' Attitudes and Responses to Bullying

The general lack of awareness of bullying demonstrated by many classroom teachers, as evidenced by the lack of consensus between teachers' perceived intervention and actual intervention (Craig & Pepler, 1997), may contribute to the ongoing problem of bullying.

In their 1994 study, Pepler et al. found that students reported that teachers intervened in bullying just 35 percent of the time. Such findings were contrary to results collected from teachers in the same study who reported that they intervened often or nearly always (Pepler et al., 1994). Yoon and Kerber (2003) asked primary school teachers to rate their level of involvement in dealing with a hypothetical bullying scenario using examples of physical and verbal bullying as well as relational bullying. Results indicated that teachers were more likely to take a more active and disciplinary approach to verbal and physical bullying than acts involving relational, with a small number of participants (10%) suggesting that they would ignore all types of behaviours.

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A more recent study by Kochenderfer-Ladd and Pelletier (2008) examined the strategies employed by teachers during intervention efforts as well as their effectiveness in reducing bullying. Findings indicated that teachers used a range of intervention techniques ranging from punishment and involving parents to more student-directed approaches such as advocating avoidance or encouraging victims to be more assertive. Intervention efforts that were more teacher-directed such as actively separating and then supervising students were more effective in minimising later victimization than student-directed strategies which involved encouraging the victim to simply 'avoid' the bully. While variations in the way teachers choose to respond is seen to be relatively important, teacher commitment to intervention is key in the prevention of bullying.

Individual factors shaping teachers' responses to bullying. As research continues to highlight teachers' infrequent efforts to intervene in cases of bullying, greater attention is being paid to identifying potential explanatory factors accounting for this lack of response. Recently researchers have turned their attention toward the individual characteristics of teachers (e.g., sex, age and moral orientation) that may contribute to how they choose to respond in bullying situations. Yoon (2004), for example, argued that individual factors such as personal belief systems greatly influence intervention efforts. Results of a teacher questionnaire suggested that teachers who perceived bullying as a serious behaviour were more likely to say they would intervene during bullying situations. Findings such as these are significant, particularly given that emerging studies indicate that it is only through active involvement in intervention that bullying behaviour can be curbed (Yoon & Kerber, 2003).

While a number of individual variables have been identified within the research literature, one potentially important variable, namely level of teacher education or qualification, is yet to be examined. The level of qualification or education held by an individual denotes the specific theoretical and practical learning opportunities they have been privy to (Organisation for Economic Co-Operation and Development [OECD], 2006). Such opportunities may contribute to individual differences in the understanding of bullying, how serious they view the behaviour as well as their willingness to intervene and the approach to intervention taken. Level of education may not be as pertinent a variable at the

school level, where there is less variation among teachers in terms of qualification. It has the potential to have much greater influence on management and teaching practices within the early childhood context however, given the range of qualifications and educational opportunities held by staff in these settings.

Research has long highlighted links between teacher qualifications and quality teaching practice. Within Australia, qualifications held by centre employees vary depending on the regulatory requirements of each state and territory (Hanson, Patterson, & Farrell, 2006; OECD, 2006). Approximately half of all staff working in prior-to-school settings in Australia is unqualified, with the majority of qualified staff holding 1 or 2-year vocational diplomas (OECD, 2006). The OECD report, Starting Strong 11 (2006), examined the impact of level of early childhood qualification on overall practice across several countries. Conclusions indicated that individuals with lower levels of qualification were more inclined to focus upon the physical care of children rather than their social and emotional needs. Conversely, individuals with higher levels of qualification, such a degree in early education, were found to have greater understanding of the development of the whole child, particularly their social development.

To date, no study has examined level of educational qualification as an individual factor influencing bullying attitudes. Within the wider literature, studies have indicated links between level of qualification and quality teaching in early childhood (Branscomb & Ethridge, 2010; National Institute of Child Health and Human Development [NICHD], 1997; OECD, 2006; Phillipsen, Burchinal, Howes, & Cryer, 1997). Literature examining bullying attitudes, however, has been made up of participants who are largely homogenous in terms of their level of educational qualification with researchers focusing on qualified teachers or pre-service teachers enrolled at university (Ellis & Shute, 2007; Kochenderfer-Ladd & Pelletier; 2008; Leff et al., 1999; Monks et al., 2002; Nesdale & Pickering, 2006; Pepler, Craig, Ziegler, & Charach, 1994; Perren & Alsaker, 2006; Siann, Callaghan, Lockhart, & Rawson, 1993; Yoon, 2004). Although these studies provide valuable insight into individual groups' perceptions of bullying, they do not allow for examination of the role that varying levels of qualification play. This is one individual characteristic that, if found important, will have significant policy and regulation implications with respect to teaching standards as well as the education and training of early childhood educators.

Contextual factors shaping teachers' responses. Along with teacher characteristics, a small number of studies have examined situational factors that may influence teachers' acknowledgment of and responses to bullying. The two main contextual factors examined are the type of bullying and whether or not the behaviour was witnessed. Teachers have been found to hold different views and respond differentially to bullying events based on bullying type (i.e., physical, verbal or relational). Teachers are more likely to view cases of physical victimization as bullying, to perceive it to be the most serious form of bullying and to intervene when such bullying occurs (Craig et al., 2000; Yoon & Kerber, 2003). Relational forms of victimization are less frequently identified as bullying, perceived to be less serious and warrant lower levels of teacher involvement with respect to intervention (Yoon & Kerber, 2003). One possibility for variations in teachers' responses to the different forms of bullying may lie in individuals' self-definitions of bullying. Boulton (1997) found that almost 1 in 4 teachers do not see name calling, spreading rumours, or intimidation as acts of bullying, whereas behaviours involving physical attacks, verbal threats as well as forcing students to do something against their will are perceived by the majority of teachers to be bullying.

Teachers' responses to incidents of school bullying are also dependent on whether or not they actively witnessed the event. Findings suggest teachers view events that they have witnessed to be more serious than those that they have not and are more likely to intervene if they have witnessed an event than if they were informed about it by a student (Craig et al., 2000). Bullying is a behaviour that typically occurs away from teachers and hence goes largely unseen (Leff, Power, Costigan, & Manz, 2003). This is particularly the case for settings such as the playground, in which school children are supervised by a smaller number of staff. During instances in which bullying is not directly witnessed by a teacher, onus is placed on bystanders to report the incident. A positive response from teachers will encourage children to report incidents of bullying, while a lack of response may result in children either trying to counter the bullying themselves or ignoring it.

The Present Study

The central purpose of this study was to examine individual and contextual factors that shape early childhood pre-service and practicing teachers' attitudes and responses towards

bullying among young children. Firstly, the study sought to examine the potential for individual differences in the attitudes and responses of teachers with varying levels of qualification. This individual factor is investigated through examining the responses of both current early childhood teachers (diploma and degree-qualified) as well as student teachers (1st and 4th-year Bachelor of Education (Early Childhood) students). It was expected that degree-qualified early childhood teachers would be more adept at labeling bullying behaviour, would perceive it to be more serious and would engage in higher levels of teacher involvement during their response to bullying behaviour than the other participant groups. Degree-qualified early childhood educators were also expected to hold the most complete definition of bullying. Given the exploratory nature of the current study, prior research does not support more specific predictions in regards to differences in attitudes between 1st- and 4th-year student teachers. However, it is proposed that 4th-year student teachers, having completed at least two units of child development which included lectures on bullying behaviour, would have a more comprehensive understanding of bullying and have a more accurate perception of it as an anti-social behaviour.

Within Australia, the qualifications for entry into the early childhood sector vary widely. For example, childcare centre mangers generally hold a diploma in children's services, while preschool teachers must have a degree (Early Childhood Development Workforce, 2010). Both degree- and diploma-qualified teachers may be the head teacher in classroom catering for children aged 3-5 years. In contrast, no formal qualifications are required for employment as a childcare or preschool assistant. Diploma-qualified teachers have completed either one or two years of paraprofessional training in early childhood through a tertiary college, while degree-qualified teachers have completed a minimum of three or four years at a university. The content of Diploma programs with respect to coverage of bullying in pre-service teacher education is largely unknown, however it is believed that as with many aspects of children's development, university-based courses would provide more detailed and comprehensive coverage compared with TAFE related qualifications (Watson, 2006).

In cases where both degree- and diploma-qualified teachers are staffed within the same room, degree-qualified teachers hold greater responsibility in terms of the daily programming and planning, while both diploma- and degree-qualified teachers hold equal responsibility in terms of managing and responding to children's behaviours. Further, both are expected to

behave similarly with respect to requirements outlined in centre policies. All pre-service teachers involved in the study were enrolled in 4-year early childhood teaching qualifications at a university.

A second goal of the study was to examine the role of contextual factors such as variations in bullying type (i.e., physical, verbal and relational) and whether or not an event was witnessed in influencing attitudes and responses to incidents of bullying in young children. Based on findings from previous studies within the school context (Craig et al., 2000; Leff et al., 2003), it was expected that bullying that was witnessed directly would increase participants' likelihood of response. Furthermore, acts of indirect bullying such as relational bullying were expected to be seen as less serious by teachers than acts of direct bullying.

Method

Participants

Participants comprised 305 females and five males, reflecting the predominance of females teaching within the Australian early childhood context. Groups included 103 1st-year student teachers (mean age = 21.63 years, SD = 5.89 years) and 133 4th-year student teachers (M = 27.87, SD = 6.38) enrolled in a 4-year Bachelor of Education (ECE) at an Australian university. The sample also included 27 diploma-qualified early childhood teachers (M = 44.33, SD = 10.16) and 47 degree-qualified early childhood teachers (M = 40.79, SD = 9.60) employed in childcare centres and preschools in New South Wales, Australia. Practicing teachers were drawn from a total of 80 centres and preschools governed by a single independent early childhood provider. The response rate for degree-qualified teachers was 60% and 39% for diploma-qualified teachers. Only one provider was sampled to ensure all participating teachers were teaching in similar educational environments governed by comparable behavioural management policies. This provider was selected as it was one of the leading provider groups in Australia and was one of the largest employer groups. All teachers involved in the study were working in the 3- to 5-year-old room.

Justification for selection of participants. The involvement of early childhood student teachers allowed for specific examination of the role that level of qualification plays in shaping perceptions, attitudes and responses to bullying. Although clear differences exist in the qualification held by degree and diploma-qualified early childhood teachers, is difficult to examine the specifics of their educational training and its influence on bullying attitudes. This is particularly the case given that both degree and diploma-qualified teachers were drawn from a number of different early childhood services and may have obtained their qualification from any number of institutions across Australia or internationally. Therefore, two comparative pre-service groups, 1st- and 4th-year students were also included. Through their involvement, it was possible to examine more closely the possible links between the amount of 'bullying specific" education participants' receive and their ensuing attitudes and definitions of early childhood bullying. This is particularly the case given that 1st-year students were yet to receive a formal lecture on bullying, whereas 4th-year students had already received at least two lectures and two practical tutorials on bullying presented in core second-year child development units. The content of the two lectures focused on definitions and prevalence of bullying, theoretical models, causes and consequences and approaches to interventions. In the tutorials students were presented with audio-visual material showing scenarios of child behaviour and asked to analyze the situation and identify potential interventions. It is also important to note that both groups of pre-service teachers had completed at least one professional experience placement in either a childcare centre or preschool, ensuring all participants had a specific classroom context which they could use as reference in responding to the questionnaire.

Measure

Teachers' attitude questionnaire. A self-report questionnaire was used to assess student-teachers' and early childhood teachers' attitudes towards bullying among young children. The questionnaire was based on the Bullying Attitudes Questionnaire developed by Craig et al. (2000). The main body of the questionnaire comprised of 12 vignettes. Modifications were made to Craig et al.'s (2000) original vignettes in order to make them more relevant to the early childhood context (see Appendix A). The modified questionnaire was pilot tested with a

group of 20 early childhood teachers to ensure the vignettes were developmentally appropriate and reflected typical and 'real life' behaviours of the targeted age-group. Each vignette depicts behaviour congruent with Olweus' (1984) original definition of bullying, which he describes as a negative action involving imbalance of power repeatedly occurring between two individuals. Each vignette varied in terms of the contextual factors described, namely the type of bullying (physical, verbal and relational) and whether or not the bullying was witnessed. The fully crossed design resulted in six unique vignettes, with two vignettes used to depict each of the six possible combinations (i.e., two non-witnessed verbal bullying vignettes, two witnessed verbal bullying vignettes).

Following each vignette, participants responded to four questions with the first three rated on Likert-type scales: (a) How seriously do you rate this conflict? (1 Not at all serious – 5 Very serious); (b) How likely are you to intervene in this situation? (1 Not at all likely – 5 Very likely); (c) How would you respond to the perpetrator in this situation? (1 No intervention, 2 Peer resolution, 3 Discuss rules with whole class, 4 Indicate to child that such behaviour is not tolerated, 5 Discipline students' bullying behaviours, 6 Report to a higher authority); and (d) Would you call this "bullying"? For the fourth question, a score of 1 was given for "yes" a score of 2 for "no". For each question, the mean response within each of the six vignettes was computed, creating 24 items which served as the dependent measures in the analyses. For questions one to three a higher score equates with greater perceived seriousness, greater likelihood of intervention, and more teacher involvement, while for question 4, a lower score indicates the respondent was more likely to view the vignette as an example of bullying.

Before beginning the questionnaire, participants answered an open-ended question about their personal definition of bullying. Respondents provided a range of descriptions which were coded into 12 major themes reflecting current theoretical approaches to bullying. The coding system was hierarchical in nature in that each factor reflected increasing complexity (see Table 1). The higher the code assigned to a participant's definition, the more complex and complete the definition and the more in-depth their level of understanding of bullying. Inter-rater agreement was measured at kappa = .85, $p < .001$.

Table 1. *Coding System for Participants' Bullying Definitions*

Code	Bullying Factor/s Included Within Definition	Example of Participant Definition for Each Code
1	Physical bullying	"The use of physical force on another"
2	Relational bullying	"Excluding someone and thus treating them disrespectfully."
3	Verbal bullying	"Teasing and saying nasty things to another person."
4	Imbalance in power	"When one person used some kind of power base to intimidate another."
5	Intentional behaviour	"Cause people damage. Harming them on purpose."
6	Physical bullying and verbal bullying	"Verbal or physical harassment which causes distress to another."
7	Physical bullying and relational bullying	"Leaving people out of groups or physical abuse"
8	Physical bullying and imbalance in power	"A stronger/bigger person causing a weaker person harm e.g. hitting and kicking"
9	Physical bullying, relational and verbal bullying	"It involves physical behaviour e.g. hitting. Plus saying nasty things and leaving people out of friendship groups and preventing them from joining in."
10	Physical bullying, verbal bullying and imbalance of power	"Victimizing someone who can't defend themselves against the stronger bully. They are bullied through physical/ verbal means."
11	Physical bullying, verbal bullying and repetitious behaviour	"Harmful behaviour which happens over and over either physical or through nasty taunts/ saying horrible things."
12	Physical bullying, verbal bullying, relational and imbalance of power	"Bullying is intentional behaviour which is an abuse of power over another, for no justifiable reason. It is verbal or physical harm or also excluding someone in a social situation."

Procedure

Questionnaires were provided to student teachers during weekly class time. Questionnaires took approximately 30 minutes to complete. All early childhood teachers working within the target childcare centres and preschools were posted a hard copy of the questionnaire with an accompanying Questionnaire Information Statement. Participants self-selected and gave permission for their involvement through returning the completed questionnaire using the stamped self-addressed envelope provided. Ethical approval was granted from both the university and early childhood provider group to conduct the study.

Results

Results are presented in three sections. The first section examines the influence of individuals' qualification level on self-definitions of bullying and attitudes and responses to bullying behaviour, tested using chi square analyses. The second section presents findings relating to the relative contribution of age, education and experience in relation to the four dependent variables (identification of bullying behaviour, perceived seriousness, willingness to intervene and form of intervention) in the form of a linear regression. The third section presents MANOVA findings relating to contextual, within-subject factors (witnessing condition and the type of bullying) and education (current early childhood teachers – diploma-qualified, university-qualified, student teachers – 1st-year, 4th-year) and their effect on the dependent measures. Although it should be noted that differences in sample size between the four groups exist, the MANOVA technique is relatively robust and can account for these variations.

Qualification Level on Self-Definitions of Bullying

A chi-square analysis examining the association between qualification level and definitions of bullying showed participants' self-definitions of bullying differed depending on their qualification level ($\chi2$ (33) = 56.89, p = .006). Overall, 1st-year student teachers (19.4%) and diploma-qualified teachers (18.5%) were more likely than other participant groups to describe bullying as being solely a physical behaviour (12.0% and 10.6% for 4th-year and degree-qualified teachers respectively) ($\chi2(3)$ = 15.39, p = .002). Across participant type, around 13% of participants described bullying as being solely an imbalance of power between the victim and the bully. A definition including physical bullying and verbal victimization was most commonly provided by 1st-year student teachers (24.3%), followed closely by 4th-year student teachers (20.3%), with far fewer diploma- (11.1%) and degree-qualified (14.9%) teachers characterizing bullying in this way ($\chi2(3)$ = 27.10, $p < .001$). Consistent with predictions, degree-qualified early childhood teachers had the highest percentage (10.6%) of participants recording definitions that acknowledged all three forms of bullying (i.e., physical, verbal, relational) as well as issues related to imbalance of power (7.4% for diploma-qualified

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teachers, under 2% for both 1st- and 4th-year student teachers) (non-significant due to the small number of participants who chose this option from all four participant groups).

A Comparison of Individual Factors: Age, Experience and Qualification Level

The following set of analyses examined the relative contribution of qualification, amount of teaching experience and age on participants' attitudes and responses to children's bullying behaviour. The four subscale scores: identification of bullying behaviour, perceived seriousness, willingness to intervene and form of intervention, served as dependent variables in four linear regression analyses. Each of the dependent variables was computed by calculating a sum of individual items.

For the models predicting identification of bullying behaviour, perceived seriousness and form of intervention, none of the predictors entered was significant; however, the model predicting willingness to intervene was significant as a whole ($F(3, 306) = 4.00$, $p = .008$, Adjusted $R^2 = .028$) with both qualification level ($b = 0.81$, $t(306) = 2.98$, $p < .01$) and years of experience ($b = -0.14$, $t(306) = -2.12$, $p < .05$) emerging as significant predictors. It should be noted, however, that a very small amount of variance was accounted for by the individual characteristics (2.8%). In addition, the strong correlation between the two predictor variables, qualification level and years of teaching experience ($r = .69$, $p < .001$) should be noted. Based on these results, further analyses examining individual differences between participants will focus on qualification level only.

Impact of Individual Characteristics and Contextual Factors on Responses to Bullying

To determine whether individual ratings of bullying (endorsement of the label bullying, perceived seriousness, willingness to intervene, form of response) differed depending on the qualification level of the respondent, the type of bullying (i.e., physical, verbal, relational) or whether or not the event was witnessed, a 2 (witnessed; not witnessed) x 3 (type: physical, verbal, relational) x 4 (qualifications: 1st-year student, 4th-year student; diploma-qualified early childhood teacher; university qualified early childhood teacher) a mixed model multivariate analysis of variance was performed. Results showed significant main effects for

Table 2. *Mean (and Standard Deviation) Bullying, Perceived Seriousness, Intervention and Method of Response Scores, by Respondent Type, Bullying Type and Witness Condition*

Variable	1st-year Student Teachers	4th-year Student Teachers	Diploma-qualified Teachers	Degree-qualified Teachers
Bullying				
Physical				
Witnessed	1.21 (0.29)	1.27 (0.29)	1.20 (0.29)	1.35 (0.29)
Not Witnessed	1.08 (0.24)	1.10 (0.24)	1.06 (0.24)	1.13 (0.24)
Verbal				
Witnessed	1.19 (0.35)	1.26 (0.35)	1.22 (0.35)	1.22 (0.35)
Not Witnessed	1.10 (0.23)	1.12 (0.23)	1.11 (0.23)	1.16 (0.23)
Relational				
Witnessed	1.20 (0.33)	1.22 (0.33)	1.24 (0.33)	1.36 (0.33)
Not Witnessed	1.15 (0.34)	1.18 (0.34)	1.30 (0.34)	1.26 (0.34)
Perceived Seriousness				
Physical				
Witnessed	4.14 (0.62)	3.85 (0.62)	4.04 (0.62)	3.90 (0.62)
Not Witnessed	4.29 (0.62)	4.17 (0.62)	4.15 (0.62)	4.20 (0.62)
Verbal				
Witnessed	3.22 (0.72)	3.19 (0.72)	3.31 (0.72)	3.53 (0.72)
Not Witnessed	3.50 (0.64)	3.47 (0.64)	3.72 (0.64)	3.77 (0.64)
Relational				
Witnessed	3.47 (0.71)	3.41 (0.71)	3.28 (0.71)	3.48 (0.71)
Not Witnessed	3.49 (0.74)	3.41 (0.74)	3.28 (0.74)	3.53 (0.74)
Intervention				
Physical				
Witnessed	4.43 (0.48)	4.34 (0.48)	4.54 (0.48)	4.51 (0.48)
Not Witnessed	4.53 (0.54)	4.44 (0.54)	4.54 (0.54)	4.55 (0.54)
Verbal				
Witnessed	3.79 (0.72)	3.86 (0.72)	3.96 (0.72)	4.24 (0.72)
Not Witnessed	4.03 (0.64)	4.00 (0.64)	4.06 (0.64)	4.27 (0.64)
Relational				
Witnessed	3.80 (0.72)	3.85 (0.72)	3.93 (0.72)	4.23 (0.72)
Not Witnessed	3.95 (0.74)	3.91 (0.74)	4.00 (0.74)	4.22 (0.74)
Method of Response				
Physical				
Witnessed	4.48 (0.85)	4.14 (0.85)	4.28 (0.85)	4.11 (0.85)
Not Witnessed	4.46 (1.13)	4.23 (1.13)	4.46 (1.13)	4.29 (1.13)
Verbal				
Witnessed	3.30 (0.86)	3.06 (0.86)	3.39 (0.86)	3.34 (0.86)
Not Witnessed	3.57 (0.92)	3.50 (0.92)	3.72 (0.92)	3.76 (0.92)
Relational				
Witnessed	3.14 (0.91)	2.95 (0.91)	3.26 (0.91)	3.34 (0.91)
Not Witnessed	3.14 (0.92)	2.96 (0.92)	3.31 (0.92)	3.15 (0.92)

respondent qualifications, Wilks' $\lambda = .91$, $F(12, 801) = 2.57$, $p = .002$, partial $\eta^2 = .03$, type of bullying, Wilks' $\lambda = .36$, $F(8, 299) = 66.05$, $p < .001$, partial $\eta^2 = .64$, and witnessing of event, Wilks' $\lambda = .78$, $F(4, 303) = 21.97$, $p < .001$, partial $\eta^2 = .23$. Significant two-way interactions were found for bullying type by respondent qualifications, Wilks' $\lambda = .84$, $F(24, 867) = 2.32$, $p < .001$, partial $\eta^2 = .06$, respondent qualifications by witness condition, Wilks' $\lambda = .93$, $F(12, 801) = 1.98$, $p = .02$, partial $\eta^2 = .03$, and bullying type by witness condition, Wilks' $\lambda = .81$, $F(8, 299) = 8.65$, $p < .001$, partial $\eta^2 = .19$. The three-way interaction between bullying type, respondent qualifications and witness condition was not significant, Wilks' $\lambda = .93$, $F(24, 867) = 0.97$, $p = .50$. Table 2 shows means and standard deviations by witness condition, respondent qualification and bullying type.

Main Effects for Type of Bullying, Witness Condition and Participant Qualification.

Main effect of bullying. For post hoc tests here and in all subsequent sections, error rates are Bonferroni adjusted for the number of comparisons in each family. Consistent with predictions, the type of bullying behaviour described in each of the vignettes significantly influenced respondents' ratings of whether or not they labeled a behaviour as "bullying", $F(2, 612) = 8.39$, $p < .001$, partial $\eta^2 = .03$, the perceived seriousness of the behaviour, $F(2, 612) = 195.08$, $p < .001$, partial $\eta^2 = .39$, their willingness to intervene, $F(2, 612) = 133.97$, $p < .001$, partial $\eta^2 = .30$, as well as how they chose to respond, $F(2, 612) = 237.84$, $p < .001$, partial $\eta^2 = .44$. See Table 3 for means and standard deviations for main effect results.

Averaged across participant groups acts of relational bullying were less likely to be viewed as incidents of bullying compared to either physical, $F(1, 306) = 10.02$, $p = .002$, partial $\eta^2 = .03$, or verbal acts, $F(1, 306) = 13.11$, $p < .001$, partial $\eta^2 = .04$. The latter two categories were equally as likely to be viewed as acts of bullying. In relation to perceived seriousness, participants rated incidences of physical bullying as significantly more serious than acts of verbal, $F(1, 306) = 285.53$, $p < .001$, partial $\eta^2 = .48$, or relational bullying, $F(1, 306) = 269.23$, $p < .001$, partial $\eta^2 = .47$. Verbal and relational bullying did not significantly differ. As well as being viewed as more serious, respondents were also more likely to intervene when presented with examples of physical bullying compared to acts that were of a verbal nature, $F(1, 306) = 193.28$, $p < .001$, partial $\eta^2 = .39$, or those which involved relational

Table 3. *Main Effect Mean (and Standard Deviation) Bullying, Perceived Seriousness, Intervention and Method of Response Scores.*

	Bullying	Perceived Seriousness	Intervention	Method of Response
Bullying type				
Physical	1.18 (0.27)	4.09 (0.63)	4.46 (0.52)	4.30 (0.99)
Verbal	1.18 (0.29)	3.40 (0.69)	3.98 (0.69)	3.34 (0.90)
Relational	1.21 (0.33)	3.44 (0.72)	3.94 (0.74)	3.09 (0.92)
Witness condition				
Witnessed	1.25 (0.32)	3.55 (0.69)	4.07 (0.65)	3.48 (0.88)
Not witnessed	1.13 (0.27)	3.73 (0.79)	4.18 (0.64)	3.67 (0.99)
Participant type				
1st year	1.16 (0.02)	3.68 (0.05)	4.09 (0.53)	3.68 (0.07)
4th year	1.19 (0.02)	3.58 (0.05)	4.07 (0.52)	3.47 (0.06)
Diploma	1.19 (0.04)	3.63 (0.10)	4.17 (0.52)	3.74 (0.13)
Degree	1.25 (0.03)	3.74 (0.08)	4.34 (0.52)	3.66 (0.10)

bullying, $F(1, 306) = 179.64$, $p < .001$, partial $\eta^2 = .37$. Again, verbal and relational bullying did not differ. Participants also varied in the way they chose to respond to the different acts of bullying. Acts of physical bullying were more likely to draw higher levels of teacher involvement than either verbal, $F(1, 306) = 232.05$, $p < .001$, partial $\eta^2 = .43$ or relational acts, $F(1, 306) = 391.32$, $p < .001$, partial $\eta^2 = .56$. Similarly, verbal bullying was seen to warrant more teacher involvement than relational bullying, $F(1, 306) = 35.72$, $p < .001$, partial $\eta2 = .10$.

Main effects of witnessed condition. Contrary to predictions, acts of bullying that were not witnessed were more likely to be labeled as bullying compared with incidents that were directly witnessed $F(1,306) = 60.19$, $p < .001$, partial $\eta^2 = .16$. In relation to perceived seriousness, bullying which was not directly witnessed was perceived as being significantly more serious than incidences that had, $F(1, 306) = 51.50$, $p < .001$, partial $\eta^2 = .14$. Participants were also more likely to say that they would intervene when presented with examples of bullying that had not been directly witnessed compared with those that had, $F(1, 306) = 15.63$, $p < .001$, partial $\eta^2 = .05$. Bullying which was not witnessed, was not only more likely to result in intervention, it also attracted significantly higher levels of teacher

involvement during intervention than bullying which had been directly witnessed, $F(1, 306) = 16.04$, $p < .001$, partial $\eta^2 = .05$.

Main effects of participant type. There was a significant main effect of participants' level of qualification on likelihood of intervention. Degree-qualified teachers were more likely to intervene in bullying situations than either 1st-year, $F(1, 306) = 7.33$, $p = .007$, partial $\eta^2 = .02$, or 4th-year student teachers, $F(1, 306) = 9.36$, $p = .002$, partial $\eta^2 = .03$. Diploma-qualified teachers did not differ significantly from any other group.

Interaction between bullying type and respondent qualification. Univariate Analyses of Variance (ANOVAs) indicated that the interaction between bullying type and respondent qualification was significant for perceived seriousness, $F(6, 612) = 4.98$, $p < .001$, partial $\eta^2 = .05$, and likelihood of intervention, $F(6, 612) = 2.77$, $p = < .01$, partial $\eta^2 = .03$. Post hoc tests were carried out to investigate the nature of these interactions.

Perceived seriousness. Differences between ratings of perceived seriousness for physical versus verbal bullying were found when comparing 1st-year student teachers with degree-qualified teachers, $F(1, 306) = 22.44$, $p < .001$, partial $\eta^2 = .07$, as well as between 4th-year student teachers and degree-qualified teachers, $F(1, 306) = 8.87$, $p = .003$, partial $\eta^2 = .03$. For all significant interactions, follow-up tests of simple effects were carried out using pairwise comparisons. Mean difference scores are converted here to t values. First-year student teachers rated physical bullying as being significantly more serious than verbal bullying, $t(306) = 16.11$, $p < .001$, partial $\eta^2 = .46$, as did degree-qualified teachers, $t(306) = 5.11$, $p < .001$ partial $\eta^2 = .08$. However, while verbal bullying was perceived as being more serious by degree-qualified teachers than 4th-year student teachers, both degree-qualified teachers and 4th-year students rated acts of physical bullying to be equally serious (physical vs. verbal bullying for 4th-year student teachers: $t(306) = 14.40$, $p < .001$, partial $\eta^2 = .40$; 4th-year student teachers vs. degree-qualified teachers for verbal bullying: $t(306) = 3.06$, $p = .003$, partial $\eta^2 = .03$; 4th-year student teachers vs. degree-qualified teachers for physical bullying: $t(306) = .0005$, $p = .62$, partial $\eta^2 < .001$).

Likelihood of intervention. There was a significant interaction between likelihood of intervention for verbal versus physical bullying for 1ˢᵗ-year student teachers and degree-qualified early childhood teachers $F(1, 306) = 12.33$, $p < .001$, partial $\eta^2 = .04$. Degree-qualified teachers indicated they would be more likely to intervene in acts of verbal bullying when compared with 1ˢᵗ-year student teachers, $t(306) = 3.16$, $p = .002$, partial $\eta^2 = .03$, whereas both 1ˢᵗ-year and degree-qualified teachers were equally as likely to intervene when presented with acts of physical bullying, $t(306) = .006$, $p = .541$, partial $\eta^2 < .001$. Both 1ˢᵗ-year and degree-qualified teachers were more likely to intervene with acts of physical bullying compared with those of a verbal nature: 1ˢᵗ-year $t(306) = 12.23$, $p < .001$, partial $\eta^2 = .33$; degree-qualified $t(306) = 3.96$, $p < .001$, partial $\eta^2 = .05$.

Interaction between respondent qualification and witness condition. The interaction between respondent qualification and witness condition was accounted for by likelihood of intervention, $F(3,306) = 2.80$, $p = .04$, partial $\eta^2 = .03$. Post-hoc tests revealed a significant interaction between witnessed and non-witnessed events when comparing 1ˢᵗ-year student teachers and degree-qualified teachers $F(1, 306) = 7.35$, $p = .007$, partial $\eta^2 = .02$. Specifically, 1ˢᵗ-year students were more likely to intervene in cases of bullying which had not been directly witnessed, $t(306) = 5.50$, $p < .001$, partial $\eta^2 = .09$, whereas degree-qualified early childhood teachers tended not to make this distinction when determining their actions, $t(306) = 0.4$, $p = .695$, partial $\eta^2 < .001$. Degree-qualified teachers were significantly more likely to respond to events that were witnessed than 1ˢᵗ-year student teachers, $t(306) = 3.36$, $p = .001$, partial $\eta^2 = .04$, no such difference was seen for non-witnessed events, $t(306) = 1.83$, $p = .068$, partial $\eta^2 = .01$.

Interaction between witness condition by bullying type. The interaction between bullying type and witness condition was significant for three of the four dependent measures: labeling of bullying, $F(2, 612) = 9.33$, $p < .001$, partial $\eta^2 = .03$, perceived seriousness, $F(2, 612) = 14.84$, $p < .001$, partial $\eta^2 = .05$, as well as the type of response used in dealing with the behaviour, $F(2, 612) = 11.27$, $p < .001$, partial $\eta^2 = .04$.

Impact of bullying type and witness condition on label of bullying. Analyses showed a

significant interaction between witnessed and non-witnessed events for physical versus relational bullying $F(1, 306) = 19.94$, $p < .001$, partial $\eta^2 = .06$. Participants were significantly more likely to label a behaviour as physical bullying if the behaviour was witnessed, $t(306) = 8.05$, $p < .001$, partial $\eta^2 = .17$, whereas labeling of relational bullying was statistically similar across both witnessed and non-witnessed conditions, $t(306) = 1.64$, $p = .103$, partial $\eta^2 = .01$. While for witnessed events there was no difference between physical and relational bullying, $t(306) = 0.13$, $p = .883$, partial $\eta^2 < .001$, participants were more likely to label a behaviour as bullying for relational than physical bullying for non-witnessed events, $t(306) = 4.96$, $p < .001$, partial $\eta^2 = .07$.

Impact of bullying type and witness condition on perceived seriousness. There were significant interactions when comparing ratings for verbal with relational bullying, $F(1, 306) = 29.47$, $p < .001$, partial $\eta^2 = .09$, and physical with relational bullying, $F(1, 306) = 14.79$, $p < .001$, partial $\eta^2 = .05$. Relational bullying was perceived to be equally serious across both witnessed and not-witnessed conditions, $t(306) = 0.49$, $p = .627$, partial $\eta^2 < .001$, whereas acts of verbal bullying that were not witnessed were perceived to be more serious than those that were, $t(306) = 7.45$, $p < .001$, partial $\eta^2 = .15$. Acts of physical bullying were seen as significantly more serious than acts of relational bullying for both the witnessed, $t(306) = 12.19$, $p < .001$, partial $\eta^2 = .33$ and non-witnessed conditions, $t(306) = 15.22$, $p < .001$, partial $\eta^2 = .43$. All participants rated acts of relational bullying to be equally serious regardless of the witness condition whereas physical bullying was seen as more serious when not witnessed, $t(306) = 5.24$, $p < .001$, partial $\eta^2 = .08$.

Impact of bullying type and witness condition on method of response. There was a significant interaction between verbal and relational bullying between witnessed and not-witnessed conditions $F(1, 306) = 28.31$, $p < .001$, partial $\eta^2 = .08$. Participants did not differentiate between conditions when presented with examples of relational bullying, whereas for verbal bullying acts that were not witnessed were more likely to receive higher teacher involvement than those that were witnessed, $t(306) = 6.19$, $p < .001$, partial $\eta^2 = .11$. Acts of verbal bullying that were not witnessed resulted in significantly more teacher involvement than acts of relational bullying, $t(306) = 7.73$, $p < .001$, partial $\eta^2 = .16$. There

was a significant interaction between physical and relational bullying for witnessed vs. not-witnessed conditions $F(1, 306) = 7.43$, $p < .001$, partial $\eta^2 = .02$. For physical bullying, both witnessed and non-witnessed conditions called for similar levels of teacher involvement, whereas for relational bullying, greater teacher involvement was associated with the non-witnessed condition (see above). However when comparing across the two forms of bullying, acts of physical bullying were found to warrant greater teacher involvement than acts of relational bullying across both witnessed conditions: witnessed, $t(306) = 16.83$, $p < .001$, partial $\eta^2 = .48$; not witnessed, $t(306) = 15.42$, $p < .001$, partial $\eta^2 = .44$.

Discussion

In this study, teachers' definitions and perceptions of bullying, in addition to their approach to intervention, were related to individual differences in qualification level as well as to key contextual factors including the type of bullying and whether or not the event was witnessed. Consistent with predictions, more qualified teachers subscribed to a more holistic and rounded definition of bullying than less qualified teachers or students. Degree-qualified early childhood teachers were more likely to provide a comprehensive definition of bullying encompassing physical, verbal and relational victimization while acknowledging an inherent imbalance of power. This was in sharp contrast to diploma-qualified and pre-service teachers who described bullying as being limited to just physical, or a combination of physical and verbal victimization, respectively. The deeper and more complete understanding of bully8ing as evidence by degree-qualified teachers is consistent with conclusions drawn in the OECD Report (2006) where a better understanding of children's social development was directly linked with level of qualification. These findings are particularly significant given known links between individual teachers' understanding of bullying and their ensuing attitudes and responses to such incidents (Monks & Smith, 2006; Yoon, 2004).

While pre-service teachers' definitions of bullying fell short of the comprehensive definitions provided by degree-qualified early childhood teachers, interesting differences between 1st- and 4th-year students did emerge. While many 4th-year students included the concept of relational victimization, this was largely absent from the definitions offered by 1st-

year student teachers. The latter defined bullying as being a behaviour involving physical and verbal victimization. It is significant to note that 1st-year student teachers within the current study had not, at the time of the study, received explicit instruction regarding bullying behaviour. In comparison, 4th-year students had attended at least two lectures on bullying. Fourth-year students had also had opportunity to engage in a wide range of subjects examining young children's social development as well as completing several practical teaching experiences. Research clearly indicates that individuals within the field have a tendency to be more aware of physical and verbal bullying which is often overt and confronting in nature compared with the more covert nature of relational bullying (Craig et al., 2000; Yoon & Kerber, 2003). These findings underscore the potential importance of education in shaping pre-service teachers' understanding of bullying, while contributing to a much broader debate about the impact of teacher-qualifications on the quality of care in prior-to-school settings (Elliott, 2006).

Teachers' Responses to Bullying

As predicted, qualification level was related to the likelihood of participants reporting they would intervene when faced with a bullying situation, with degree-qualified early childhood teachers asserting they would be more likely to respond to incidents of bullying behaviour than the other three groups, although this relationship was only significant when comparing degree-qualified teachers with 1st- and 4th-year pre-service teachers. Findings relating to teachers' mode of intervention, when presented with each of the vignettes, indicate that most participants would respond to bullying by either discussing rules with the whole class or talking to the child so that they understood that the behaviour is not tolerated. According to Rigby (2002), early childhood teachers have a tendency to adopt a strengths-based approach rather than engaging in punitive measures, reflecting a general reluctance among early childhood teachers to attribute deliberate cause to the bully. Studies that have looked more closely at teacher efforts suggest that it is not the specific method of response per se but teachers' active involvement and monitoring that is of vital importance in curbing and preventing bullying behaviour (Doll, Song, & Siemers, 2004; Kochenderfer-Ladd & Pelletier, 2008). Just as the peer group can encourage bullying through bystander involvement, teacher

awareness or involvement in bullying intervention can influence the amount of bullying that occurs both in the classroom and playground (Doll et al., 2004; Hanish et al., 2005).

Findings from studies examining the effectiveness of a range of bullying interventions clearly demonstrate in a caring and responsive community (which includes the whole school community of students and teachers) bullying is significantly reduced (Olweus & Limber, 2010; Rigby & Bauman, 2010). The establishment and implementation of an anti-bullying policy is also necessary. Anti-bullying policies that directly address bullying behaviours, the role of peers, teachers and other school personnel, are critical for establishing and maintaining a positive school climate and for reducing bullying in schools (Orpinas & Horne, 2010).

For practicing teachers, how they would respond to acts of bullying may not only be a reflection of their own personal orientation or belief system, but may also be in response to inherent policy and practical expectations of the childcare centre or preschool in which they teach. At present, within Australia, childcare centres and preschools are not required to include a specific bullying policy above and beyond what is outlined in their behavioural management policy. While some centres certainly choose to incorporate a bullying policy, such inclusions are quite variable and unregulated. Because all practicing teachers in the current study were drawn from centres and preschools governed by the one educational body, the potential for policy and practical variations is less likely. Nonetheless, given the potential for contextual influences on teaching practices (Ellis & Shute, 2007), further research examining teacher responses to bullying would benefit from extending the research focus to incorporate both individual as well as environmental influences on teachers' management of bullying incidents.

Contextual Influences on Teachers' Attitudes and Responses

In the current study both witness condition and bullying type influenced participants' attitudes to bullying and also interacted with qualification level. As hypothesized, the type of bullying behaviour depicted within each of the vignettes influenced respondents' stated likelihood of intervention. Participants overall said they would be more likely to intervene when presented with descriptions of overt physical bullying compared to acts of more covert verbal or relational bullying. This was particularly the case for 1st-year students, for whom

bullying type greatly influenced their decision to respond. This is consistent with patterns reported in earlier studies where prospective teachers were more likely to confine bullying to physical acts (Yoon & Kerber, 2003) and to respond with higher rates of intervention for such acts than for verbal or relational bullying (Craig et al., 2000; Yoon & Kerber, 2003). Such findings link to the 1st-year students' tendency to label physical victimization as bullying when compared with relational bullying. Labeling only some forms of victimization as bullying may help explain why 1st-year students said they were more likely to intervene when presented with more overt forms of bullying.

A second possible explanation for the link between physical bullying and higher rates of teachers' willingness to intervene relates to early childhood teachers' perceptions of young children. The current study is one of few to focus on bullying amongst children within prior-to-school settings. A common misconception among individuals within the early childhood field is their belief that young children do not or are incapable of, engaging in bullying behaviour, particularly relational bullying (Monks & Smith, 2006). This is contrary to the emerging evidence highlighting the presence of various types of bullying occurring among children under the age of five (Alsaker & Gutzwiller-Helfenfinger, 2010; Kochenderfer & Ladd, 1996; Monks & Smith, 2006). The aims of the current study were clear in that participants were made aware that their attitudes towards bullying were being assessed. While many were willing to concede that young children may engage in physical bullying, when faced with examples of relational bullying, participants mislabeled it as necessary for the development of social understanding and emotional regulation and thus chose not to view this as a form of bullying.

The potential for individual differences in early childhood teachers' responses as a result of educational attainment was further reinforced by findings relating to 1st-year pre-service teachers. The tendency for 1st-year students to identify more frequently with descriptions of physical bullying compared to the less overt behaviours of verbal and relational bullying may again point to the importance of education in preparing teachers for their often challenging role. Of all participant groups, 1st-year student teachers had the least opportunity to gain instruction as to the complex way in which bullying behaviour manifests itself and the serious nature of all types of bullying behaviour.

While the type of bullying influenced teachers' perceptions of seriousness as a whole,

differences were also found among the four participant subgroups. Consistent with past research (Ellis & Shute, 2007; Rigby, 2002; Yoon & Kerber 2003), examples of indirect bullying such as relational bullying were perceived by teachers as being less serious than acts of physical bullying. Diploma-qualified early childhood teachers, in particular, perceived examples of relational bullying as being less serious than verbal bullying, compared to 4th-year students who were less likely to make such a distinction. This lack of recognition of relational bullying as a serious form of bullying by diploma-qualified teachers is a cause for concern given the negative consequences of relational bullying for both victims and their peers (Gazelle & Ladd, 2003). A review of university and TAFE related qualifications suggests university-based courses provide more detailed and comprehensive coverage of key developmental concepts (Watson, 2006), which may go someway toward explaining the only limited understanding of diploma-qualified staff with respect to the more covert forms of bullying.

By its very nature, relational bullying involves the damaging of peer relationships (Farrington, 1993; Monks & Smith, 2006). Therefore, within educational settings, including the early childhood context, greater insight needs to be provided to teachers as to the serious nature of this form of bullying. Detailed information also needs to be obtained as to specific components of tertiary training provided to individuals with the most comprehensive and in-depth understanding of bullying and the serious implications that arise from all types of bullying. Awareness of bullying needs to be promoted within the broader context of socio-emotional wellbeing. As with all challenging behaviours, prevention is more effective than intervention. The success of preventative strategies depends of course on teacher awareness as well as sensitivity to the complexity of the situation. Findings from this study highlight the importance of teacher preparation and underscore the need for national mandates governing the compulsory inclusion of bullying education in early childhood teacher preparation programs.

Impact of witness condition on teachers' responses. Contrary to predictions, when averaged across all four subgroups, participants indicated that they would be more likely to intervene in incidents they had not witnessed. Furthermore, incidents of bullying that were not witnessed were perceived as being more serious and attracted higher levels of teacher response than did behaviour that was witnessed. These unexpected results are difficult to account for, given Craig et al. (2000) who, when using a similar measure, showed participants were more likely

to respond to witnessed behaviours compared to non-witnessed events. One possible explanation for an increased response to non-witnessed events may be a result of the bullying incident being magnified in the eyes of the teacher through the actual reporting of the event. In this way, the incident has already been evaluated as being serious and labeled as bullying by another person, thus potentially increasing the significance of the act and prompting the teacher to further action. Alternately, the teacher may feel anxious about being liable for not having been sufficiently alert: "Where were you?" Such unexpected findings provide a catalyst for future research examining the impact of witness condition on bullying attitudes within the early childhood context. This is particularly the case given the increasing number of bullying incidents among young children, many of which are witnessed (or missed) by early childhood teachers (Leff et al., 2003; Yoon & Kerber, 2003).

When comparing across groups, 1st-year student teachers' responses to intervention were more dependent on the context they were presented with, while degree-qualified early childhood teachers did not make a distinction between the two conditions. Degree-qualified teachers indicated they would be more responsive to acts of bullying, regardless of whether or not the behaviour had been witnessed. Furthermore, while all subgroups responded equally to vignettes describing physical transgressions, degree-qualified teachers were more responsive in their intervention efforts to less overt acts such as verbal or relational bullying, reflecting their more sophisticated understanding.

A possibility for these differences between participant subgroups may be due to differences in theoretical understanding as to the nature of bullying. Having completed their tertiary education, it is possible that degree-qualified early childhood teachers have a more complex and complete understanding of bullying. Degree-qualified teachers appear to understand the covert qualities of bullying and are aware that, while most incidents of bullying do occur in the absence of a teacher, all such incidents call for similar intervention responses. As such, these teachers are less susceptible to contextual variations in bullying.

Limitations, Strengths, and Conclusion

Findings from this study should be interpreted in the context of its limitations. First, the study relied solely on self-report and it cannot be assumed that responses to hypothetical vignettes translate to teachers' responses in the classroom or playground. However, while

research may not be able to provide the totally accurate mirror reflection of the social world that positivists strive for (Miller & Glassner, 1997), it can provide access to the meanings teachers attribute to both their experiences and the social worlds in which they work. Further research needs to be conducted employing more naturalistic or qualitative methods.

More observational studies are needed to document the nature of bullying within early childhood settings so as to reveal more about adequate and inadequate responses of teachers. Such work could also allow researchers to describe ways in which educational environments for young children show continuity with environments for school-aged children, but also ways in which they differ. For instance, an unanswered question that concerns the application of the body of literature on bullying to the early childhood context relates to the developmental levels of the children. How much should adult responses to incidents of bullying reflect an understanding of the developmental nature of very young children's growing social competence or lack of it?

An additional issue is the role that teaching experience plays in shaping teachers' attitudes and responses to bullying. Not only is there significant variability in terms of educational qualifications within the early childhood sector, but there are also teachers with varying years of experience. While these may be highly related, it may also be that each contributes in a unique way to the way in which teachers manage bullying situations. Conclusions drawn from this study must also take into account the small number of Degree- and diploma-qualified teachers involved in the current study. The small number of participants in these two groups, in particular the diploma-qualified group, means caution should be exercised in regards to the generalisability of findings.

Findings from the study also contribute to the growing debate surrounding the importance of teacher-qualifications in the education of children in the prior-to-school years. The educational background of teachers has been found to mediate philosophical beliefs and teaching practices among early childhood educators, where educational background refers to both the level of overall education as well as the type of coursework or content covered (Kontos & Wilcox-Herzog, 2001). While findings from the study go some way toward explaining the role of teacher education in shaping teachers' responses to bullying situations, an examination of the specific aspects of teacher training that make early childhood teachers effective in dealing with bullying behaviour is also necessary. Particular attention should be

awarded to how the more covert forms of bullying are examined within educational courses, given the findings both in this study and in past research attesting to a general lack of awareness of or reluctance to identify this as a form of bullying. The experiences that pre-service teachers have in teacher preparation programs can transform how they view children, as well as how they perceive themselves within the educational context (Branscomb & Ethridge, 2010). If we are to ensure optimal outcomes for young children with respect to bullying it is essential to have well-qualified and educated staff.

As evidence continues to grow regarding the harmfulness of bullying behaviour to the short- and long-term wellbeing of children, many preschools and long day care centres are taking steps to reduce bullying behaviour (Rigby, 2002). The lack of research in evaluating early childhood teachers' intervention efforts is of significant concern. An unresolved issue of educational significance is whether young children should receive negative sanctions from teachers in response to bullying behaviours as has been suggested by Scandinavian researchers Alsaker and Valkanover (2001), or be responded to by using more progressive methods focusing on children's strengths rather than wrongdoings, a common response within the early childhood sector (see Rigby, 2002). The tendency for all participants in this study to select methods that were more child-centred and less punitive in their approach highlights the need to examine more closely the implications of such responses in the management of bullying behaviour.

In summary, results from this study increase understanding of bullying among young children by highlighting the significant role teachers play within the bullying process. The study not only examined the attitudes of current and student teachers, but more specifically their particular level of educational qualification. The findings underscore the importance of examining both contextual variations as well as individual differences in educational attainment in examining early childhood teachers' understanding and responses to bullying amongst young children.

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Appendix A

Variations in the Contextual Factors Described within Each Vignettes

	Witnessed	Not Witnessed
Physical Bullying	A child brings in a new plastic dinosaur for 'show and tell' time. He waves it above his head telling those around him that it was a special present from his father. Another child walks up and punches the child in the stomach and snatches the dinosaur from his hand. This is not the first time that such an incident has occurred between these children.	You are approached by a child who claims they have been kicked by an older child without provocation. You did not witness the event, although a red mark is evident. The older child has bothered the younger one before.
	Two children are sitting at a table painting. One child reaches over to pick up a paintbrush. Before they can pick up the paintbrush the other child snatches it and the paintbrush out of the paint pot and hits them over the hand with it yelling "Mine!" A similar incident occurred this morning.	You are approached by a child who claims that whilst sitting in the book corner they have been pinched hard by an older child for the third time today, without reason. Pinch marks are visible.
Verbal Bullying	In the block corner you hear one child say to another "Give me that green block or I'll knock your tower down" The child tries to ignore the remarks and continues building. You have seen a similar thing happen on the previous day.	The children are lining up at the door waiting to go out to lunch. A child comes to speak to you claiming that another older child has threatened to stop them from playing in the sandpit if they don't hand over their muesli bar. Similar events have been reported to you by other children recently.
	You witness a child say to another "There is no more room for you here, only good drawers can sit at this table. I told you that this morning." The rejected child walks away and sits alone in the book corner. This is not the first time such an incident has occurred.	Whilst in the playground a Sarah walks over and pointing to two children sitting on the steps of the cubby house says to you: "Michelle and Emma keep watching me doing hopscotch and say I'm no good at it". This is not the first time Michelle and Emma have spoken to Sarah in this way.
Social Exclusion	In the home corner you overhear one child say to another "If you don't let me have that baby doll, you can't come to my birthday party". You have heard this child say a similar thing before.	In the playground a child runs up to you saying that another older child will not allow them to use one of the dress up capes because they are not "Pretty enough like a princess to have a cape". You heard about a similar event involving these children last week.
	A child who is crying says to you "Jack and Tim won't let me play with them at the water tray, because I am smaller than them" This is not the first time such an incident has occurred.	Whilst standing in the playground a child runs up to you in tears claiming that they are being excluded from playing in the water tray by three older children. This is not the first time this child has been excluded from play by their peers.