Teachers' Beliefs about Emotions: Relations to Teacher Characteristics and Social and Emotional Learning Program Implementation

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Recent years have witnessed increased theoretical and empirical attention to the school-based promotion of children's social and emotional competence as educators, parents, policymakers, and other societal agencies contemplate solutions for contemporary problems such as declining academic motivation and achievement (Klem and Connell, 2004), increasing school bullying (Swearer et al. 2010), and rises in children's mental health problems (Institute of Medicine, 2009). Schools around the world are adopting social and emotional learning (SEL) programs aimed at preventing these issues and fostering social and emotional competencies (Ransford et al. 2009; Schonert-Reichl and Weissberg, 2014). Although a plethora of research suggests that SEL programs are largely effective, as evidenced in the meta-analysis of SEL programs by Durlak et al. (2011), other evaluations of SEL programs have yielded non-significant findings (see Ransford et al. 2009). As espoused by many SEL researchers, future studies should move beyond the "black box" approach to program evaluation and investigate the role of teachers in delivering SEL programs, specifically teachers' beliefs about emotional socialization practices and the extent to which they deliver the program with fidelity (Beets et al. 2008; Durlak and DuPre, 2008; Jennings and Greenberg, 2009; Zinsser et al. 2014).

Through their natural daily interactions, teachers play a critical role in the emotional life of the classroom, including student-teacher and student-student relationships. Teachers enter the classroom with their own levels of social-emotional competence (e.g. mindfulness, self-compassion), which has an impact on the quality of the learning environment, including the amount of emotional support offered to students (Jennings, 2014). Ad-

ditionally, whether conscious of it or not, teachers are constantly facilitating their students' social and emotional development through emotion socialization practices – modeling and communicating the extent to which students should reflect upon, control, and express their emotions in the classroom (Hargreaves, 2000). Several researchers have predicted and found a relationship between teachers' utilization of supportive emotion socialization practices (e.g. reacting to students' emotions in a supportive way) and their students' emotional competence (e.g. well-adjusted emotion regulation; Denham, Bassett and Zinsser, 2012; Horner and Wallace, 2013). Furthermore, evidence has suggested that students of emotionally sensitive and involved teachers are less likely to exhibit internalizing and externalizing problems (Murray and Greenberg, 2000; Zinsser et al. 2014), and show greater improvements in their social competence (Wilcox-Herzog and Ward, 2004; Zinsser et al. 2014). Despite the recognized influence of teachers on their students' social and emotional development, there remains a paucity of research examining a factor that may be associated with differences in teachers' emotion socialization practices and implementation of SEL programs: teachers' emotion beliefs (see Hyson and Lee, 1996). Teachers' emotion beliefs refer to beliefs that teachers hold about emotions in the classroom setting and their personal role in promoting the emotional development of their students (ibid.).

Most of the research to date examining teachers' emotion beliefs has assessed the beliefs of early childhood educators (Ahn, 2005; Gosney, 2006; Huemer, 2010; Hyson and Lee, 1996; Jaramillo, 2006; Jumper 2005; for an exception, see Bellas, 2009). Furthermore, only one known study comprised of only early childhood educators has established a link between teachers' emotion beliefs and their implementation of an SEL program (Jaramillo, 2006). Therefore, to our knowledge, the current study is the first of its kind to examine elementary school teachers' emotion beliefs in relation to both their background characteristics and their implementation of an SEL program designed to promote children's emotional competence.

Teachers' Background Characteristics and Emotion Beliefs

It has been widely suggested that the beliefs people hold are shaped by their backgrounds and personal experiences (Pajares, 1992). A significant body of research has established a link between teachers' background characteristics and a variety of beliefs they hold. For instance, years of teaching experience has been found to be positively and significantly correlated with both teachers' self-efficacy beliefs regarding their ability to manage disruptive behavior and motivate learning in the classroom (Tschannen-Mo-

ran and Wolfolk Hoy, 2007). A handful of studies exist that have found no relation between years of teaching and emotion beliefs (Bellas, 2009; Hyson and Lee, 1996; Jumper, 2005). Nonetheless, the samples in these previous studies were either fully or partially comprised of early childhood teachers – a population with different educational training and attrition rates than elementary school teachers (Whitebook, 2014). Indeed, little is known about the relation between years of teaching experience and teachers' beliefs about emotions in the elementary school context.

Prior research indicates that early childhood teachers' level of education is positively and significantly associated with the developmental appropriateness of their emotion beliefs (i.e. the congruency of these beliefs with their students' age-related social-emotional needs; Hyson and Lee, 1996; Jumper, 2005). The level of teacher preparation, however, can be quite different between elementary school teachers (who are required to have a bachelor's degree, at a minimum) and early childhood educators (with only about 50% holding a bachelor's degree or higher; Whitebook, 2014). Similarly, teachers' emotion socialization practices may depend on the grade level they teach, owing to the age-related differences in the social and emotional competence of children in elementary school compared to early childhood (e.g. advanced reasoning about emotions; Brackett and Rivers, 2008). Some evidence suggests as the grade level that teachers instruct increases, their willingness to engage the children in their classrooms in direct emotion socialization practices decreases. Ahn and Stifter (2006) found, for example, differences in the emotion socialization practices of toddler caregivers versus preschool teachers – with the former teacher group being more willing to physically comfort and verbalize emotions with their children compared to the latter. Taken together, understanding the beliefs elementary school teachers hold about emotions in the classroom can provide insight into whether accredited teacher training programs adequately prepare these teachers to engage in developmentally appropriate emotion socialization practices.

Teachers' Emotion Beliefs and Emotion Socialization Practices

Although teachers' beliefs about using particular emotion socialization practices and their execution of those emotional socialization practices are two independent processes, a body of empirical evidence indicates a link between these two factors (e.g. Ahn, 2005; Bellas, 2009). Some research has been conducted on teachers' emotion beliefs and their emotion socialization practices in classrooms not hosting a specific SEL program. In one study, it was found that the teachers' beliefs regarding the

importance of particular emotion socialization practices were relatively consistent with their actual emotion socialization practices via classroom observations (Ahn, 2005). In another study, teachers high in emotion support for students, compared to those who were moderately supportive as determined via quantitative assessments of their classroom interactions, were more likely to express in focus groups that they (i) held the beliefs that SEL was an integral part of interacting with their students and were equally as accountable as parents to foster children's emotional development, and (ii) purposefully used explicit emotion socialization practices with their students (e.g. drawing attention to and labelling emotions; Zinsser et al. 2014). Moreover, teachers with less developmentally appropriate emotion beliefs have been found to be more likely to react negatively (e.g. use punitive practices, minimize students' emotions) to their students' negative emotion expressions (Gosney, 2006). Gosney (2006), however, found that more developmentally appropriate emotion beliefs did not predict teachers' positive reactions to students' negative emotion expressions.

Collectively, these findings highlight the importance of gaining more knowledge about teachers' emotion beliefs and emotion socialization practices. Research in this area is particularly important in classrooms hosting emotion-focused SEL programs, as the programs' structured activities may support teachers' sense of efficacy and motivation to deliberately carry out direct emotion socialization practices aimed at promoting their students' emotional competence.

Teachers' Emotion Beliefs and SEL Program Implementation

Burgeoning evidence indicates that the extent to which teachers implement preventive intervention programs with fidelity (quality and degree of implementation) is associated with the effectiveness of these programs (Durlak, 2015; Durlak and DuPre, 2008; Ransford et al. 2009). Although it is beyond the scope of the present study to examine program effectiveness, it is valuable to attempt to extend the understanding of underlying mechanisms that impact implementation fidelity. It has been suggested that future studies examine teacher-related factors that impact variations in the implementation of evidence-based preventive intervention programs as these variations affect the quality of the program and may undermine its success (Durlak and DuPre, 2008; Wanless and Domitrovich, 2015). Further, Wanless and Domitrovich (2015) highlight that examining teacher-related factors that are present *before* the delivery of the program – such as beliefs, knowledge, and skills – expands the scant lit-

erature on "indicators of readiness" to implement the program (p. 1038). Research has found that teachers' implementation fidelity of SEL program lessons and practices is associated with a number of teacher beliefs: beliefs about whether the SEL program activities are aligned with their teaching approach (ibid.); beliefs about behavior management practices (Rimm-Kaufman and Sawyer, 2004); self-efficacy beliefs about teaching (Ransford et al. 2009; Reyes, et al. 2012); the level of comfort delivering the SEL curriculum (Brackett et al. 2012); dedication to developing their SEL skills (ibid.); perceptions of whether the school culture supports SEL instruction (ibid.); and perceptions of whether the school leader supports an SEL program (Brown et al. 2010). Nonetheless, these previous studies did not examine the teachers' beliefs that are specifically relevant to an underlying philosophy of emotion-focused SEL programs, that is, emotional competence can be enhanced through direct instruction and is not an innate or fixed characteristic (Gordon, 2000; Kress and Elias, 2006). Therefore, for teachers hosting an SEL program in their classrooms that aims to enhance students' emotional competence, the emotion beliefs of those teachers may be associated with differences in their emotion socialization practices as evidenced by the extent to which they implement SEL program activities.

Only one study to date has examined teachers' emotion beliefs in relation to frequency of implementation of SEL program activities. Jaramillo (2006) found that early childhood teachers' *expressiveness* beliefs (beliefs about teachers' candid expression of emotions around their students) were significantly and negatively correlated with the amount of SEL program activities they implemented. That is, teachers who reported being uncomfortable or unwilling to be emotionally expressive with their students were less likely to engage their students in emotion-focused activities in an SEL program, in contrast to teachers who reported being emotionally expressive in their interactions with students (ibid.). Clearly, additional research is needed to better understand the association between *elementary school* teachers' emotion beliefs and their implementation of SEL programs, particularly with regard to SEL programs that are emotion-focused in their intent.

The Roots of Empathy: An Emotion-Focused SEL Program

For the current study, teachers' emotion beliefs and their implementation of extension activities were examined in the context of one SEL program – the Roots of Empathy (ROE). ROE is a classroom-based SEL program for children from Kindergarten to 8th grade. The goal of the ROE pro-

gram is to increase students' emotional competence (i.e. emotional understanding, perspective-taking) and prosocial behaviors, and to decrease students' aggressive behaviors (Gordon, 2000).

To date, there have been several outcome studies examining the efficacy of ROE (see Schonert-Reichl and Scott, 2009 for a review). Overall, research on the effectiveness of ROE has yielded consistent and highly promising findings regarding the impact of the program across age and gender. For instance, Schonert-Reichl et al. (2012) found that 4th to 7th grade children who participated in ROE, compared to those who did not, demonstrated advanced emotional and social understanding, as well as reduced aggressive behavior and increased prosocial behavior. Moreover, Santos et al. (2011), in their cluster randomized controlled field study and longitudinal follow-up of the ROE program, found that the positive effects of the program in decreasing aggression and increasing prosocial behavior were either maintained or improved, even after the program had ended.

A trained and certified ROE instructor facilitates the ROE program over the course of nine months, and visits the classroom three times each month – a pre-family visit, a family visit, and a post-family visit. The cornerstone of the ROE program is the monthly ROE family visits, involving an infant and his/her parent(s) who visit the classroom to serve as a springboard for lessons on emotion knowledge, perspective-taking, and infant development. During these monthly visits, the ROE instructor encourages the students to observe the baby's emotional, social, and physical development, and reflect on the parent-infant bond and the ways in which the infant "relies on the parent to understand the world, to feel safe to explore and to learn how to regulate his/her emotions" (Roots of Empathy, 2013, para. 8). During the pre- and post-family visits, the ROE instructor draws on the students' observations of the infant via a series of sequenced ROE lessons. These lessons are age-appropriate to the students and progress with the baby's natural development. The 27 ROE lessons consist of nine different themes: Meeting the Baby, Crying, Caring and Planning for the Baby, Emotions, Sleep, Safety, Communication, Who am I?, Goodbye and Good Wishes. All of the lessons are designed to help children understand and reflect on their own feelings and the feelings of others.

Each ROE lesson aims to develop students' emotional competence by providing them with rich opportunities to identify, explain, and react to the emotions of the ROE infant, and discuss the emotions experienced by the infant, themselves, and others. For instance, during a structured ROE lesson, students are directed to recognize the nonverbal cues

and facial expressions of the infant (e.g. sadness, fear) and label the emotion, and are encouraged to engage in perspective-taking to identify possible reasons why the infant may be experiencing that emotion (e.g. having had a toy taken away, hearing a loud noise). Then, through a variety of additional activities (e.g. book discussions, art projects), the students are encouraged to reflect on their own and others' experiences with the emotion the infant was feeling (e.g. feeling sad or afraid). For the Caring and Planning for the Baby theme, for example, the instructor reads a story to the students about a young girl losing her first tooth. After the story, the instructor asks the students about the various emotions that can be experienced from losing a tooth (e.g. worry that others will laugh about the missing tooth). The group discussion gives students the opportunity not only to discuss their emotions, but to practice empathy through learning about and respecting their classmates' emotions as well. In the family visit, the students are encouraged to engage in perspective-taking by asking the infant's parent questions about the infant's experiences with teething (e.g. "How does it make you feel to see your baby in pain?" "What do you try to do to make your baby's pain go away?"). As posited by Schonert-Reichl et al. (2012), ROE draws on the *functionalist* approach to emotions, wherein emotion understanding and expressivity are seen as playing central roles in the establishment and maintenance of children's interpersonal relationships (Saarni, 2011).

Learning to reflect upon, label, discuss, and express emotions helps students learn to regulate and exhibit their emotions in socially acceptable ways. Therefore, students are better equipped to demonstrate greater empathy, and accordingly more prosocial behavior and less aggression towards others (Schonert-Reichl et al. 2012).

Although the ROE instructor facilitates the lessons and thus is the primary implementer of the program, in the ROE model the classroom teacher is encouraged to reinforce the valued concepts promoted by the ROE program by integrating extension activities into the existing academic curriculum (e.g. language arts lessons; Gordon, 2000). The instructor provides the teacher with several resources that can aid in the design of extension activities, including the ROE curriculum manual that outlines the goals and activities of the program, the lesson plans for each visit, and references to additional resources (ibid.). Despite their role as secondary implementers, no research to date has examined the ways in which teachers' beliefs about emotions may influence their implementation of ROE extension activities. Hence, examining elementary school teachers' emotion beliefs in association with their implementation of the ROE program extension activities can be highly informative. This information can

fill several gaps in the knowledge about teachers' emotion beliefs and the manner in which they deliver an emotion-focused SEL program.

The Current Study

The objectives of the current study were twofold: (a) to examine relations of teachers' background characteristics (i.e. elementary grade level taught, years of teaching experience) to their emotion beliefs, and (b) to examine relations of teachers' emotion beliefs to the implementation of extension activities in the context of one emotion-focused SEL program – the ROE program. Data for this study were drawn from two studies investigating the effectiveness of the ROE program – one of which was a randomized controlled trial (RCT) and the other a quasi-experimental study.

To investigate the first research question, given the question is not concerned with teachers' implementation of a specific SEL program, pre-test data for the intervention group and control group were combined in order to yield a larger sample size. To investigate the second research question, only the intervention group teacher data were analyzed since the control group did not implement the SEL program.

Method

For the present investigation, as noted above, data were derived from two studies of ROE – an RCT and a quasi-experimental design study. The former ROE study took place in a large urban public school district serving approximately 55,000 students located in a Western Canadian city. The latter ROE study was conducted in public elementary schools on the Isle of Man. The Isle of Man is located within the British Isles between Ireland and the islands of Great Britain, has a population of approximately 82,000 people, and has approximately 35 primary schools. Nearly half of the primary schools on the Isle of Man were part of the present study.

Participants

The participants included 58 elementary school teachers: 20 teachers from the Isle of Man and 38 teachers from Canada. The Isle of Man sample included primary grade teachers (Kindergarten to 3rd grade) recruited from 18 schools who were assigned to either host the ROE program ($n = 10$) or serve as controls by delivering standard academic instruction ($n = 10$). The Canadian sample included primary grade (Kindergarten to 3rd grade; $n = 20$) and intermediate grade teachers (4th to 7th grade; $n = 18$) recruited from 16 schools who were randomly assigned to either host the ROE program ($n = 19$; 53% instructing primary grades and 47% instructing intermediate grades) or serve as controls by delivering standard academic in-

struction (n = 19; 53% instructing primary grades and 47% instructing intermediate grades). For both samples, informed consent was obtained from participants. Each consent form explained that the purpose of the study was to assess the effectiveness of a classroom-based program aimed at enhancing children's social and emotional understanding.

In the current sample, analyses of background characteristics of the intervention and control teachers revealed no significant differences. The teacher participants were primarily female (86.2% program and 89.7% control), and were of Western European descent (82.8% program and 82.8% control). They predominantly instructed primary grades (69% program and 69% control), had 11 or more years of teaching experience (41.4% program and 48.3% control), and held an undergraduate-level degree (86.2% program and 89.7% control). Approximately half of the participants reported participating in SEL-related training and/or professional development (program 55.2% and 48.3% control). As the present analysis sought to examine only the subset of primary grade teachers, analyses of demographics reported by the Isle of Man and Canadian teachers instructing primary grades were also conducted and revealed no significant differences.

Procedure

For the ROE study on the Isle of Man (quasi-experimental design study), school leaders interested in participating in the study were invited to a meeting, at which time the study was explained and schools were assigned to the ROE program intervention group or the control group. After the groups were assigned, teachers were sent packages containing information about the study and the measures to be completed. It was explained that they could directly contact the research team at any time with questions.

For the ROE study in Canada (RCT study), principals demonstrating an interest in implementing the program at their school were contacted and asked to invite their teachers to participate in the study. Participating classrooms were randomly assigned to the ROE group or the control group. After the groups were randomly assigned, the Principal Investigator of the research project delivered a short presentation about the study to each participating classroom and answered teachers' and students' questions.

For both evaluations, baseline data collection occurred a few weeks prior to the commencement of the ROE program implementation in late autumn. Post-test data collection occurred a few weeks after the completion of the ROE program implementation in late spring, approximately 8 months after baseline data collection. Teachers completed a series of

self-report measures at baseline and post-test within a two-week time period. For their participation in the study, teachers received an honorarium (£25 honorarium for the Isle of Man teachers; $150.00 for the Canadian teachers).

Program Implementation
Beginning in late autumn and ending in late spring, the ROE program was implemented in the intervention-group classrooms over the course of the school year. All 27 structured lessons across the nine themes (i.e. Meeting the Baby, Crying, Caring and Planning for the Baby, Emotions, Safety, Sleep, Communication, Who Am I?, Goodbye, and Good Wishes) were facilitated by a trained and certified ROE instructor. For each of the nine themes, the ROE instructor facilitated three lessons: (1) the pre-family visit to introduce the students to the theme, (2) the ROE family visit in which the instructor directed the students to observe the family's interactions and the baby's development, and (3) the post-family visit to reflect on the ROE family visit and complete the theme.

The intervention group teachers in the current study acted as secondary implementers and, therefore, they did not facilitate the structured ROE lessons. However, the teachers could support the ROE curriculum by integrating ROE extension activities into the academic curriculum. As stated earlier, the intervention group teachers did not receive ROE training, but were provided with resources to aid in the development of ROE extension activities.

Measures
Participating teachers completed three self-report measures that assessed (a) their background characteristics, (b) their implementation of ROE extension activities (this latter measure was completed by ROE program teachers only), and (c) their emotion beliefs.

Assessment of Teachers' Background Characteristics
At baseline, teachers completed a self-report measure that asked them to provide information on demographics (gender, race/ethnicity), level of education, grade level currently teaching, and years of teaching experience. For grade level, teachers were categorized into one of two levels: primary grades (K – 3rd) or intermediate grades (4th – 7th).

Assessment of Teachers' Emotion Beliefs
At baseline, all participants completed the *Teachers' Beliefs about Emotions* (TBAE; Hyson and Lee, 1996) questionnaire – one of the only known measures to assess teachers' emotion beliefs. The TBAE is a 23-

item self-report measure of the beliefs that teachers hold about emotions in the classroom and the role the teacher plays in their students' emotional development. Teachers indicated the extent to which they agreed with each statement on a Likert-type scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The rating scale was modified from Hyson and Lee's (1996) 6-point Likert scale in order to align with other teacher report measures used in the current study. The TBAE comprise six subscales: (1) *Bonds* - beliefs about the importance of teacher-student connections (4 items: e.g. "Children need to feel emotionally close to their teachers;" α = .60); (2) *Expressiveness* - beliefs about teachers' candid expression of emotions around students (4 items: e.g. "Teachers should 'let their feelings out' in the classroom;" α = .54); (3) *Instruction/Modeling* - beliefs about using direct instruction and demonstration to help illustrate to students appropriate emotion expression (4 items: e.g. "When a child is angry because another child won't share a toy, I often tell the child exactly what words she could use to express her feelings;" α = .66); (4) *Talk/Label* - beliefs about helping children identify and discuss their current emotion states (6 items: e.g. "When one of my children is upset about something, I usually try to put into words how he or she is feeling;" α = .45); (5) *Protect* - beliefs about shielding students from upsetting emotions (3 items: e.g. "Teachers should not read children stories that might make them sad or worried;" α = .55); and (6) *Display/Control* - beliefs about students' ability to regulate and exhibit emotions in a socially acceptable manner (3 items: "As a teacher, it's important for me to teach children socially acceptable ways of expressing their feelings;" α = .79). Cronbach's alphas for the TBAE in the current study were low to moderate, ranging from .45 (*Talk/Label*) to .79 (*Display/Control*). A decision was made to exclude subscales with alphas falling below .50 due to their low internal consistency; hence the *Talk/Label* subscale was discarded from further analyses. The five remaining subscales of the TBAE were retained for further analyses. Although an alpha level of .70 is customarily considered acceptable for research purposes, Ransford et al. (2009) suggest that .60 is acceptable when research is exploratory in nature, such as in the present study. Therefore, subscales with alphas close to or above .60 were retained as acceptable – two subscales with alphas slightly below .60 (i.e. .54 and .55) and three subscales at or above .60 (i.e. .60, .66, and .79). It should also be noted that the alphas found in the present study were higher than those found by Hyson and Lee (1996) in their research on the development of the TBAE. Hyson and Lee's alphas ranged from .41 (*Protect* subscale) to .62 (*Bonds* subscale).

Assessment of Teachers' Implementation of ROE Extension Activities

At post-test, only ROE program teachers completed a measure assessing the extent to which they delivered ROE extension activities across the general academic curriculum. The dimensions assessed included: (a) the number of subject areas in which the teacher implemented the ROE extension activities (Language Arts, Math, Science, Social Studies, Art, and Other), and (b) the overall frequency with which the teacher implemented the ROE extension activities across all subject areas. More specifically, teachers were provided with a list of curricular subject areas and were asked to indicate with a "yes" or "no" whether or not they had implemented ROE extension activities in each subject area. If the teacher participants reported "yes", they were prompted to indicate the frequency with which they delivered extension activities in that subject area. In the Isle of Man sample, teacher participants were provided a field to write in the frequency of implementation. In the Canadian sample, teacher participants were asked to indicate the frequency with which they implemented the extension activities on a 5-point Likert-type scale (*Never, Once or twice, Monthly, Weekly, Daily*). To merge the data sets, the qualitative data from the Isle of Man sample were re-coded to match the Canadian study's quantitative response options (e.g. "every day" was re-coded to the numeric value assigned to the Daily option).

Results

Preliminary Analyses

Preliminary analyses were conducted to examine emotion beliefs in the Isle of Man and Canadian teachers to determine whether the two samples could be merged for further analyses (see Table 1). The results indicated that the means for emotion beliefs were comparable between the two groups (i.e. scores falling within one standard deviation range of each other) for four of the five subscales of the TBAE: *Bonds, Expressiveness, Instruction/Modeling,* and *Protect* beliefs. For the *Display/Control* beliefs, however, there was no overlap between the groups' scores. On average, the Canadian primary grade teachers reported stronger agreement that their students were developmentally ready to be taught how to express their feelings in socially acceptable ways than the Isle of Man teachers. The difference in the means for this particular dimension may be related to the cultural context in which these two teacher groups are instructing. Nevertheless, given the demographic and emotion belief similarities between these teacher groups overall, as well as the interest in increasing the statistical power of this study's analyses by having a larger sample size, the data for the two primary grade teacher groups were combined.

Table 1. Means and Standard Deviations of Emotion Beliefs by Study and Grade Level Taught (N = 58)

Emotion Beliefs	Isle of Man, Grade K-3 Teachers (n = 20)		Canadian, Grade K-3 Teachers (n = 20+)		Canadian, Grade 4-7 Teachers (n = 18)	
	M	SD	M	SD	M	SD
Bonds	3.45	.59	3.91	.57	3.68	.56
Expressiveness	3.35	.59	3.54	.45	3.46	.53
Instruction /Modeling	3.40	.72	3.98	.69	3.95	.72
Protect	2.28	.54	2.00	.35	1.76	.39
Display/Control	3.97	.42	4.68	.46	4.70	.44

Note. + n = 19 for the Protect and Display/Control beliefs, due to missing data.

Analytic Strategy

To examine the first research question regarding the extent to which grade level taught and years of teaching experience are associated with teachers' emotion beliefs, the combined pre-test data from teachers in both the control and intervention groups were analyzed. Specifically, a series of 2 (grade level taught: primary grades, intermediate grades) x 3 (years of teaching experience: 0-5 years, 6-10 years, 11+ years) analyses of variance (ANOVAs) were conducted – one for each subscale on the TBAE. Huberty and Morris (1989) posit that when multiple outcome variables are of interest, some statisticians suggest conducting a multivariate analysis of variance (MANOVA) prior to performing multiple ANOVAs to help decrease the probability of committing a Type I error. However, Huberty and Morris argued that the results of a MANOVA, versus those of multiple ANOVAs, answer different research questions and thus suggested using both or only the latter depending on the purpose of the research. If the researcher is not "seeking any linear composite of the outcome variables" and "an underlying construct is of no concern" (ibid. p. 303), then performing multiple ANOVAs alone is viewed as appropriate. Therefore, it was deemed acceptable for two reasons to conduct a series of ANOVAs for the present study instead of one MANOVA. Firstly, Hyson and Lee (1996) perceived each emotion belief dimension to be conceptually independent from the others. Secondly, as previously noted, the present study aimed to be descriptive in nature due to the dearth of extant research on teachers' emotion beliefs.

The steps for performing ANOVAs described by Pallant (2007) were followed, in which a dependent variable (i.e. composite score on a TBAE

subscale) and the fixed factors (i.e. teacher background characteristic variables) were entered into the model to examine main and interaction effects. Moreover, when a statistically significant difference was found with a fixed factor with more than two levels, post-hoc Tukey's HSD tests were conducted to identify which group means significantly differed from each other. Finally, to examine effect sizes, eta squared was calculated using Brown's (2008) formula: SSeffect/SST. The results were interpreted according Cohen's (1988) effect size index: small effect size = .01; medium effect size = .06; and large effect size = .14.

To examine the second research question regarding the relation of teachers' emotion beliefs related to both the amount of subject areas in which they implement ROE extension activities and the frequency of their implementation across all subject areas, the data of the intervention group teachers were examined. Specifically, correlational analyses were conducted. In these analyses, the teacher participant scores on the TBAE subscales were assessed in relation to the number of subject areas in which the teacher implemented the ROE extension activities and the overall frequency with which the teacher implemented the ROE extension activities across all subject areas. The effect sizes were examined for the significant correlations by squaring the correlation coefficients (Hoyt, Leierer and Millington, 2006). The effect sizes of the correlational analyses were also interpreted according to the aforementioned effect size index (Cohen, 1988).

Descriptive Analyses

Table 2. Means, Standard Deviations, Minimum and Maximum Values of Teachers' Emotion Beliefs (N = 58)

Emotion beliefs	M	SD	Min	Max
Bonds	3.68	.60	2.25	5.00
Expressiveness	3.45	.53	2.25	5.00
Instruction/Modeling	3.77	.75	2.33	5.00
Protect	2.02	.48	1.00	3.33
Display/Control	4.44	.56	3.00	5.00

Note. Ns range from 57 to 58 due to missing emotion beliefs data. The response scale for each emotion belief item ranged from 1 "Strongly disagree" to 5 "Strongly agree." Each teacher's composite score for each subscale was the average of their responses to the items comprising the given subscale.

Table 2 presents the profiles of the teacher participants' emotion beliefs, regardless of intervention or control group. This includes the means,

standard deviations, and ranges of the emotion beliefs of all teacher participants. As can be seen, on average the teachers reported moderately agreeing with the *Expressiveness* beliefs and agreeing with the *Display/Control* beliefs. They also reported disagreeing with the *Protect* beliefs. Moreover, teachers reported moderately agreeing with both the *Bonds* beliefs and *Instruction/Modeling* beliefs; although, there was more variability in teachers' responses for these two belief areas compared to the others.

Relations Between Teachers' Background Characteristics and Emotion Beliefs

ANOVAs were performed to examine the relationship between teachers' background characteristics and emotion beliefs. More specifically, differences in each of the emotion beliefs (*Bonds, Expressiveness, Instruction/Modeling, Protect, Display/Control*) were assessed in relation to their background characteristics using a series of two-way 2 (grade level taught) x 3 (years of teaching experience) ANOVAs – one for each emotion belief. Table 3 provides a summary of the analyses for the relationship between teachers' grade level taught and emotion beliefs. Table 4 provides a summary of the analyses for the relationship between teachers' years of experience and emotion beliefs. The results of these analyses indicated that there were no interaction effects. Several significant main effects were found and are discussed below. No main effects were found for *Bonds* or *Expressiveness* beliefs in relation to either background characteristic.

As can be seen in Table 3, no main effect emerged for *Instruction/Modeling* beliefs and grade level taught. However, as illustrated in Table 4, *Instruction/Modeling* beliefs (i.e. beliefs in using direct instruction and demonstration to help illustrate to students appropriate emotion expression) were significantly higher for experienced teachers than novice teachers. Post-hoc Tukey's HSD test revealed teachers with either 6-10 years ($M = 4.14$, $SD = .58$) or 11+ years ($M = 3.89$, $SD = .75$) of teaching experience had higher beliefs on this dimension than novice teachers with 0-5 years of experience ($M = 3.31$, $SD = .69$). Regarding the effect size, 1% of the between-subject variance in *Instruction/Modeling* beliefs was explained by years of teaching experience, which is a small effect.

Table 3 indicates that *Protect* beliefs (i.e. beliefs in shielding students from strong emotions) were significantly higher for primary grade teachers ($M = 2.15$, $SD = .48$) than intermediate grade teachers ($M = 1.76$, $SD = .39$). The effect size was 1%, which is a small effect. Main effects did not emerge for *Protect* beliefs and years of teaching experience, as seen in Table 4.

Table 3 also reveals that *Display/Control* beliefs (i.e. beliefs in students' abilities to regulate and exhibit emotions in a socially acceptable manner) were significantly higher for intermediate grade teachers ($M = 4.73$, $SD = .44$) than primary grade teachers ($M = 4.29$, $SD = .57$). The effect size was 0%, which is a non-significant effect. Main effects did not emerge for *Display/Control* beliefs and years of teaching experience, as seen in Table 4.

Table 3. Results of ANOVAs for Emotion Beliefs by Grade Level Taught (N= 58)

Emotion Beliefs	Group		SS	df	MS	F	p	η^2
	Primary	Intermediate						
1. Bonds	3.69 (.62)	3.68 (.56)	.01	1	.00	.00	.95	.00
2. Expressiveness	3.42 (.53)	3.47 (.53)	.04	1	.04	.14	.72	.00
3. Inst./Modeling	3.70 (.76)	3.87 (.72)	.33	1	.33	.68	.42	.00
4. Protect	2.15 (.48)	1.76 (.39)	1.47	1	1.47	7.22*	.01	.01
5. Display/Control	4.29 (.57)	4.73 (.44)	2.23	1	2.23	8.04*	.01	.00

Note. Ns range from 57 to 58 due to missing emotion belief data. Standard deviations appear in parentheses. For grade level taught, primary grades = grades K-3, intermediate grades = grades 4-7. Inst./Modeling = Instruction/Modeling.
*p < .05.

Table 4. Results of ANOVAs for Emotion Beliefs by Years of Experience (N = 58)

Emotion Beliefs	Group			SS	df	MS	F	p	η^2
	0-5 years	6-10 years	11+ years						
1. Bonds	3.58 (.65)	3.76 (.52)	3.70 (.61)	.23	2	.11	.30	.74	.00
2. Expressiveness	3.43 (.47)	3.48 (.62)	3.43 (.51)	.03	2	.02	.05	.95	.00
3. Inst./Modeling	3.31 (.69)	4.14 (.58)	3.89 (.75)	4.92	2	2.46	5.00*	.01	.01
4. Protect	1.99 (.28)	2.01 (.51)	1.93 (.48)	.06	2	.03	.15	.86	.00
5. Display/Control	4.67 (.54)	4.48 (.65)	4.39 (.51)	.58	2	.29	1.04	.36	.00

Note. Ns range from 57 to 58 due to missing emotion belief data. Standard deviations appear in parentheses.
*p < .05.

Correlational Analyses

To examine teachers' emotion beliefs in relation to the amount of academic subject areas in which they implemented ROE program activities and the frequency of their implementation of ROE extension activities across all subject areas, correlational analyses were conducted. As can be

seen in Table 5, particular emotion beliefs' dimensions were significantly and positively related to the implementation of ROE extension activities. Teachers' *Expressiveness* beliefs (i.e. beliefs in teachers' candid expression of emotions around their students) were significantly and positively correlated with the overall frequency with which they implemented the ROE extension activities across the academic subject areas. The variance-accounted-for effect size was 23%, a moderate effect.

Teachers' *Protect* beliefs significantly and negatively correlated with both the number of subject areas in and frequency with which ROE extension activities were implemented. The effect sizes were 27% and 20%, respectively, which are fairly moderate effects. Finally, teachers' *Display/Control* beliefs were significantly and positively correlated with both the number of subject areas in and frequency with which ROE extension activities were implemented. Respectively, the effect sizes were 41%, a moderate to strong effect, and 21%, a moderate effect.

Table 5. Correlations and Descriptive Statistics for Emotion Beliefs and Implementation of ROE Extension Activities (N = 29)

Variables	1	2	3	4	5	6	7
Emotion beliefs:							
(1) Bonds	--	.35**	.09	-.09	.09	.03	.20
(2) Expressiveness		--	-.07	.04	.37**	.30	.48*
(3) Instruction/Modeling			--	.03	.19	-.03	-.25
(4) Protect				--	-.44**	-.52**	-.45*
(5) Display/Control					--	.64**	.46*
Extension activity implementation:							
(6) Number of subject areas						--	.91**
(7) Frequency							--
M	3.68	3.44	3.72	2.00	4.49	2.65	5.32
SD	.57	.62	.73	.45	.57	2.30	5.47

Note. Ns range from 25 to 29 due to missing data. For the number of subject areas in which extension activities were implemented, there were six subject areas in total: Language Arts, Math, Science, Social Studies, Art, and Other. For Frequency of implementation across all subject areas, the scores for all six subject areas (0 = Never, 1 = Once or twice, 2 = Monthly, 3 = Weekly, 4 = Daily) were totalled.
*p < .05. **p < .01.

Discussion

The current literature on the emotion beliefs of important adults in the lives of children, who influence their social and emotional development, focuses almost solely on parents and on early childhood teachers instruct-

ing in preschool settings (see Bellas, 2009; Hyson and Lee, 1996; Jaramillo, 2006; Jumper, 2005). Additionally, most research studies concerned with the implementation of evidence-based preventive intervention programs "focus on identifying concurrent factors that explain variation in fidelity during the implementation phase as opposed to examining factors that are in place before an intervention is selected or that emerge early on when an intervention starts" (Wanless and Domitrovich, 2015, p. 1038).

The current study was designed to address these gaps in the research. This study is unique as it is one of the first to investigate the emotion beliefs of elementary school teachers, and is the only known study to include in its sample intermediate grade teachers who instruct students in middle childhood (Grades 4-7). Additionally, this study is unique as it is one of the first to investigate teacher-related factors *before* program implementation, particularly emotion beliefs, with the findings indicating that these factors are related to program implementation. These findings add to the emerging literature on 'indicators of readiness' to implement SEL programs (ibid.) and further open the black box of SEL program implementation to understand the role of the teacher in its implementation (Jennings and Greenberg, 2009). Understanding the factors that impact teachers' readiness to implement SEL programs is beneficial as it can guide the knowledge, training, and support offered by SEL program developers, coaches, school leaders, and even pre-service teaching programs; this can help enhance the social-emotional competence of teachers, ensure their needs are met, and that they have the capacity to implement the evidence-based program with fidelity and thus increase the likelihood that positive student outcomes will be achieved (Wanless and Domitrovich, 2015; Domitrovich et al. 2015; Jennings, 2014).

Teachers' Background Characteristics and Emotion Beliefs

The results of the current study indicate that teachers' background characteristics are significantly related to particular emotion beliefs dimensions, indicating the need to address these issues in pre-service and/or in-service teacher training. The finding that experienced teachers had higher *Instruction/Modeling* beliefs compared to novice teachers may indicate that novice teachers felt uncertain or less prepared to take responsibility for showing their students how to express their emotions appropriately; whereas experienced teachers may have acquired strategies through first-hand experience that enhanced their sense of efficacy to explicitly guide their students in this way (see Tschannen-Moran and Woolfolk Hoy, 2007).

Primary grade teachers had higher *Protect* beliefs and lower *Display/Control* beliefs compared to intermediate grade teachers. These beliefs for

both groups may be developmentally appropriate – that primary grade children are not developmentally ready to be exposed to stories or circumstances that could upset them and are unable to control the way they express their emotions, whereas intermediate-aged children tend to cope on their own by using problem-solving strategies when upset (Saarni, 2011). The lower *Display/Control* beliefs also indicate that primary grade teachers are less likely to believe it is their role to help children in their classrooms learn to control their emotions in socially appropriate ways compared to intermediate grade teachers. Regardless of the possibility that primary grade children are not developmentally ready to regulate their emotions on their own, they would still benefit from receiving support from their teachers to develop their emotion regulation skills.

Together these findings suggest the importance of providing teachers, particularly novice and primary grade teachers, with knowledge about social-emotional development and the important role that teachers play in socializing this development in their students. Additionally, the findings suggest that if these teachers are expected to implement an emotion-focused SEL program, it may be beneficial to provide them with ongoing SEL coaching to build their self-efficacy and motivation to engage their students in the emotion socialization practices called for by the program (Tschannen-Moran and Woolfolk Hoy, 2007).

It should be reiterated that the effect sizes were minimal. Nonetheless, Trusty, Thompson and Petrocelli (2004) have cautioned researchers not to interpret minimal effect sizes as an indication that the significant relationships among the variables are not important. They noted that whether the findings are comparable to the findings of other similar studies may be of greater importance (ibid.). At this stage, however, minimal research has been conducted using an elementary school sample to explore similar links. Thus, the implications of the minimal effect sizes for the present study are indeterminate.

Teachers' Emotion Beliefs and Implementation of ROE Extension Activities

The findings indicating that differences in teachers' implementation dosage of an emotion-focused SEL program are associated with their emotion beliefs support the notion that SEL program implementation does not occur in a vacuum. Rather, a variety of factors present before the implementation of a program begins, such as emotion beliefs, can influence the implementer's readiness to implement the program (Wanless and Domitrovich, 2015), their perceptions of the importance of the program, and/or

their motivation and sense of efficacy to implement the program activities (see Durlak and DuPre, 2008).

A central finding of the present study was that teachers with lower Expressiveness beliefs implemented ROE extension activities less frequently, compared to those with higher beliefs on this dimension. Similar to Jaramillo's (2006) study, these findings suggest that teachers with higher *Expressiveness* beliefs may be more comfortable, willing, and/or motivated to engage in activities that can involve communicating their own emotions to their students.

Another key finding of the current study was that teachers with higher *Protect* beliefs or lower *Display/Control* beliefs implemented ROE program activities in fewer subject areas and with less frequency. These findings may indicate that teachers' perceptions of their students' developmental readiness to cope with and learn to regulate strong emotions are associated with teachers' motivation and willingness to engage their students in activities that can provoke strong emotions in their students. That is, despite the fact that the ROE program is tailored to the developmental level of the participating students, these teachers may not want to take responsibility or do not feel well-equipped to provide emotional support and guidance to students who become upset during the emotion-laden activities. Such reasoning builds on the research literature on implementer-related factors that influence the readiness to implement and thus the implementation fidelity of preventive intervention programs (e.g. Durlak and DuPre, 2008; Wanless and Domitrovich, 2015).

Limitations and Implications

A few limitations of the current study must be acknowledged to consider their impact on this research and provide direction for future research in this area. Although the findings of the current study add to the knowledge base on the links among elementary school teachers' background characteristics, emotion beliefs, and SEL program implementation, the lack of prior research in this area meant there was little empirical direction in which to forecast our results. Furthermore, the study's sample size was relatively small, hence limiting the statistical power to discern effects. For instance, this may explain the lack of interaction effects for the ANOVAs and the few sizeable, almost-significant results (±.20 and above) found for the correlational analyses (e.g. a strong positive correlation between *Bonds* beliefs and implementation frequency; a strong positive correlation between *Expressiveness* beliefs and implementation in total subject areas). Moreover, the sample was rather homogenous regarding gender and ethnicity, with the teachers being predominantly female and of Western Eu-

ropean descent. On the other hand, teachers of Western countries typically fit these demographics.

As previously noted, the data for the Grades K-3 Canadian and Isle of Man teachers were merged to form one group. Although the current study ensured that there were no statistically significant differences concerning the demographics between these teacher groups, cultural and contextual differences were not controlled for. Owing to the recent emphasis the British Columbia Ministry of Education has placed on social responsibility (e.g. ethical and democratic behavior, peaceful problem-solving) in its schools (British Columbia Ministry of Education, 2001), the Canadian teachers, compared to the Isle of Man teachers, could have been more familiar and comfortable with fostering the student outcomes that the ROE program aims to promote. Merging the data may have tempered some of the findings related to the primary grade teachers. It is suggested that future research consider cultural and contextual differences in relation to emotion beliefs.

An additional limitation is the internal consistencies of the subscales of the TBAE (Hyson and Lee, 1996) questionnaire, which were weak to moderate. It is suggested that future research perform a content validation of the questionnaire to assess whether all items should be retained. For instance, the framing of the items is not consistent throughout the questionnaire, as some items ask teacher participants to reflect on their own emotion socialization practices (e.g. "When a child is angry because another child won't share a toy, *I* often tell the child exactly what words she could use to express her feelings" [italics added]), whereas other items are concerned with their perceptions of social norms (e.g. "*Teachers* should avoid showing children how to express their feelings" [italics added]).

Another limitation is the reliance on self-report data. Specifically, we relied solely on teachers' reports of their implementation of SEL program activities. As we did not obtain reports from other informants or observational data, we cannot be certain about the degree to which teachers' reports are accurate representations of what they did in practice. As noted by Durlak and DuPre (2008), "[t]here are some indications that observational data are more likely to be linked to outcomes than self-report data … but few studies have directly compared these two strategies" (p. 331). Therefore, our findings on SEL program implementation fidelity should be interpreted with some caution. We suggest future research on SEL program implementation fidelity include multiple informants and/or observations in addition to self-reports.

As noted, the teacher participants in the ROE intervention were secondary implementers of the program. Although this did not interfere

with our efforts to assess teachers' emotion beliefs in relation to their implementation of ROE activities, it is suggested that future research include in its sample teacher participants who are primary implementers. This can be valuable for comparing primary versus secondary implementers and to consider the benefit of receiving training directly related to the SEL program being implemented.

The findings of the current study revealed that particular emotion beliefs held by teachers were associated with their implementation dosage of the ROE program. Due to the fact that the research has indicated that SEL program implementation fidelity is linked to student SEL outcomes (Durlak and DuPre, 2008), it would be valuable for future researchers to examine whether teachers' emotion beliefs are positively correlated with students' emotional development in a classroom hosting an emotion-focused SEL program.

In conclusion, this study has the potential to inform SEL program design, teacher training, and future SEL research. The findings can inform the design of SEL programs as they provide insight into what teachers might think about the suitability of the programs in relation to (a) their current belief systems, competencies, and methods of operating emotionally in their classrooms, and (b) their students' current level of development and whether they are ready for emotion-laden activities, even if the program is said to be tailored to the particular age group of the participating students. These findings may also inform the training with which teachers are provided, whether in pre-service teacher training or in-service professional development, to potentially guide their emotion beliefs. This might include providing teachers with information about the emotional development of children and about teachers' role in socializing their students' emotional development, and encouraging engagement in meaningful experiences (e.g. a student teaching practicum that involves observing experienced teachers implement SEL programs, on-going support from a trained SEL coach) that can enhance their sense of self-efficacy and motivation to implement SEL program activities (see Larsen and Samdal, 2012).

The findings of this study also support and extend an area of research in the SEL field that is receiving increased attention: the social-emotional competence (SEC) of teachers (Brown et al. 2010; Jennings and Greenberg, 2009). In fact, teachers' emotion beliefs may provide insight into particular dimensions of their social-emotional competence (e.g. emotion understanding, emotion regulation skills). Therefore, this research may support the importance of promoting the SEC of teachers, such as through coursework or workshops that help teachers express and man-

age their emotions properly. This study may also act as a platform for future research investigating whether teachers' emotion beliefs can be guided and the most effective methods for guiding these beliefs.

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