TEACHER EDUCATION & DEVELOPMENT | RESEARCH ARTICLE

Social–emotional competencies among teachers: An examination of interrelationships

Meirav Hen1* and Marina Goroshit1,2

Abstract: Teachers' social–emotional competence is crucial for promoting a positive learning environment to the students. However, the research on teachers' social–emotional abilities is very limited. This study examined the relationship between emotional abilities and self-efficacies and empathy among teachers, hypothesizing that teachers' self-efficacy belief mediates the relationship between the other two variables. We found a strong positive association between the three social–emotional competencies, and direct and indirect (via teachers' self-efficacy) effects of emotional self-efficacy on empathy. These results suggest that teachers' belief in the ability to regulate their emotions contributes to teachers' empathy in both ways.

Subjects: Emotional Development; Teacher Education & Training; Teacher Training

Keywords: emotional self-efficacy; teacher's self-efficacy; empathy

1. Introduction

In the last decade, research suggest that socially and emotionally competent teachers set the tone for strong and supportive relationships between teachers and students (Jennings & Greenberg, 2009). These relationships are fundamental for the healthy development of students in schools and are positively associated with students' academic performance, achievements, social functioning, school engagement, and learning motivation, and negatively associated with behavioral problems.

ABOUT THE AUTHORS

Meirav Hen, PhD is a practicing clinical psychologist and the head of the department of psychology in Tel-Hai academic college in northern Israel. I practice, teach, and research in the areas where education meets psychology. Specifically, I am interested in teachers' social–emotional competencies, and how do they contribute to teaching and learning processes. I am also interested in how emotional processes are associated and effect learning in higher education. Lately, I have focused my research on topics that are related to academic procrastination, including researching teachers' procrastination in their work place.

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PUBLIC INTEREST STATEMENT

Caring teachers set the tone for strong and supportive relationship between teachers and students. These relationships are fundamental for the healthy development of students in schools and are positively associated with students' academic performance, achievements, social functioning, school engagement, and learning motivation. Interestingly, behavioral problems and dropping from school are often negatively associated with teachers who care. The aim of this study was to examine how teachers self-beliefs in their emotional and teaching abilities will contribute to their empathy toward their students. Findings of this research indicated that when teachers feel confident about their emotional and teaching abilities, they tend to be more caring toward their students. These findings support the notion that in order to enhance teachers' empathy and contribute to the student–teacher relationship, teachers' positive self-beliefs must be in the focus of teachers' training.

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and dropping from school (Baker, Grant, & Morlock, 2008; Bernstein-Yamashiro & Noam, 2013; Murray & Zvoch, 2011; Spilt, Koomen, & Thijs, 2011). Jennings (2011) argued that social–emotional competence provides the necessary skill base and dispositions that help teachers to form supportive relationships with their students, effectively manage their classrooms, and successfully implement social and emotional learning. Elias (2009) argued that to be a social–emotional competent teacher means not only to have the skill, but also to be aware and manage oneself and to be aware and manage the relationships with others. He believed that teachers who feel confident about their emotional skills will better recognize and understand students’ emotions and their place in the students’ behavior (Elias, 2009). Further, these teachers can more effectively respond to the students’ needs and instill trust and respect (Jennings & Greenberg, 2009). Other studies that examined specific social–emotional competencies in teachers indicated that both the feelings of self-efficacy and empathy were positively related to the teacher’s positive attitudes toward special education students (Hen, 2010), students with disabilities (Barr, 2013), culturally diverse students (McAllister & Irvine, 2002), students with behavioral difficulties (Yoon, 2002), and other students with special educational needs (Stojiljković, Djigić, & Zlatković, 2012).

While there is a fair amount of literature discussing the importance of teachers’ social–emotional competencies (Elias, 2009; Jennings, 2011) and some research concerning the contributions of these competencies to teachers’ overall practice (Murray & Zvoch, 2011; Spilt et al., 2011), the literature that examines the interrelation between these social–emotional competencies is scarce (Goroshit & Hen, 2014a). It is clear that teachers’ empathy contributes their ability to meet students’ overall educational needs, and boost students’ confidence in the school climate (Cooper, 2004). However, what are the social–emotional competencies that are involved in the enhancement of teachers’ empathy? And how do they relate to each other? The focus of this study was to add to this line of literature by examining the interrelation between teachers’ emotional and teaching self-efficacies, and teachers’ empathy.

### 1.1. Teacher’s empathy

Baron-Cohen (2003) defined empathy as the drive to identify another person’s emotions and thoughts, and respond to these with an appropriate emotion. This drive, he believes, provides a way to make sense of, and predict another person’s behavior. Lam, Kolomitro, and Alamparambil (2011) argued that empathy is an individual capacity to understand the behavior of others, to experience their feelings, and to express that understanding to them. It is a complex, multi-dimensional concept that has moral, cognitive, emotive, and behavioral components (Mercer & Reynolds, 2002). Empathy has been conceptualized in many different ways (Stojiljković et al., 2012).

Cooper (2010) argued that teacher empathy is a required teaching skill that promotes a positive learning environment to students. Tettegah and Anderson (2007) defined teachers’ empathy as the ability to express concern and take the perspective of a student. Such teachers serve as a model of morality for their pupils, by engaging them in positive interaction. Cooper (2004) found that empathic teachers contribute to children’s self-efficacy and to their motivation to learn. Empathic teachers were also shown to strengthen their pupils’ sense of belonging to their schools, and their relationships with teachers and peers (Schutz & DeCuir, 2002). Empathic teachers possess high moral standards, successfully communicate with their students both emotionally and mentally, and encourage them to create similar relationships with others (Jennings & Greenberg, 2009). Although research supports the view that supportive learning environments, including empathic and supportive teacher practices, are conducive to student learning and achievement, teacher empathy is often overlooked, and it is unclear how it can be enhanced (Arghode, Yalvac, & Liew, 2013). Several studies suggested that teachers’ self-efficacy beliefs contribute to their practice and performance and therefore may contribute to their relationship with students and their empathy (Stephanou, Gkavras, & Doulkeridou, 2013). Goroshit and Hen (2014a) found that while gender, years of experience, and an academic degree did not predict empathy among teachers, emotional self-efficacy was a strong predictor. Further, Goroshit and Hen (2014b) found that both emotional and teachers’ self-efficacies contribute to empathy in teachers, but the contribution of teaching self-efficacy was larger. This
finding may suggest that teachers’ beliefs in their teaching abilities contribute more than their belief in their ability to regulate their emotions to their level of empathy. However, this assumption will be further discussed in the following paragraph, and will serve as a basis for this study.

1.2. Teachers’ self-efficacy

According to Bandura’s social-cognitive theory (1982), self-efficacy beliefs reflect highly contextualized knowledge structures that affect appraisal processes, and guide actions (Caprara, 2002). Teachers teaching self-efficacy beliefs are task-specific self-beliefs concerning teachers’ teaching performance (Friedman, 2003). It was found to be associated with a wide range of teaching behaviors including teaching performance, teaching strategies, teaching styles, class management, and control over the teaching–learning process (Putman, 2012). It has also been associated with teachers’ self-states including burnout, job satisfaction, well-being, self-regulation, and stress management (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2010). Finally, teachers’ self-efficacy beliefs were positively associated with student achievements, student and teacher motivation, attitudes toward misbehaved students, and inclusion of children with learning disabilities and mild mental retardation (Roll-Pettersson, 2008).

More recent studies that extended Bandura’s (1977) original theory on task-specific self-efficacy suggested that peoples’ broader-level self-beliefs that operate across activities and situations contribute in different ways to specific domains of individual functioning (Caprara, 2002). When people reflect on their experiences in specific tasks, they construct beliefs about their capabilities in broader domains of functioning, and these broader clusters of self-beliefs in relation with the task-specific self-beliefs will affect appraisal processes, and guide actions (Di Giunta et al., 2010).

People widely differ in how well they manage their emotional experiences of everyday life, not only because they differ in skills but also because they differ in their perceived capabilities to understand and regulate their emotions (Caprara et al., 2008). Studies indicated that the beliefs individuals hold about their ability to identify, express, and regulate emotions in themselves, and in others, help them manage their negative feelings, buffer the perturbing effects of aversive experiences, facilitate adaptive coping, and lead to rewarding and enriching social exchanges and experiences (Bandura, 2001; Folkman & Moskowitz, 2000). Therefore, emotional self-efficacy beliefs refer specifically to the beliefs people hold about their ability to regulate their emotions. On the other hand, teaching self-efficacy beliefs specifically refer to teacher’s self-beliefs about their teaching abilities. These two concepts are similar in the way they examine self-beliefs; however, they differ in the competence they examine and also in the type of self-beliefs they present. Emotional self-efficacy presents a broad-level type of self-belief, while teaching self-efficacy refers to a specific task (e.g. teaching).

Following the above literature and recent studies, we assumed that emotional self-efficacy beliefs, which refer to teachers’ self-beliefs about their abilities to regulate emotions, may be a broad domain contributor to teachers’ empathy. We expected that teachers’ self-beliefs about their teaching abilities that serve as task-specific self-beliefs will have a mediating effect in this relationship. In other words, we assumed that higher emotional self-efficacy will contribute to higher teachers’ self-efficacy, and they both will contribute to higher empathy in teachers.

2. Method

2.1. Participants and procedure

This study is based on a convenience sample of 312 teachers from several schools that agreed to participate in a study about their teaching practices. The sample consisted of 71% females and 29% males, with a mean age of 40.6 years (SD = 11.1, range 22–69) and mean years of teaching experience of 14 years (SD = 11, range 1–42). 53% of the participants graduated from a general college, 32% from university, and 14% from a teaching college (e.g. a 3-years college for teachers in Israel). 51% of the teachers in the sample are elementary school teachers, 35% are high-school teachers, and 14% junior
high-school teachers. To assure that the participants from different contexts do not differ significantly in sense of main research variables, we performed comparisons between different schools and graduate institutions. These comparisons revealed no significant differences between participants.

The data were collected by research assistants in 10 schools in northern and central Israel. The assistants explained to the participants that the purpose of the study was to deal with attitudes and perceptions of teachers and that participation was voluntary and anonymous. 350 questionnaires were distributed in total and 312 were filled and returned to us, with the refusal rate amounting to about 11%. Completing the questionnaire lasted 20 min on average. All participants were assured that the data will be kept confidential and used only for research purposes.

2.2. Instruments

2.2.1. Empathy
Empathy was measured using the Inter-personal Reactivity Index (IRI, Davis, 1983). This instrument contained 28 statements on a 5-point Likert scale (from 1—does not describe me at all to 5—describes me well) measuring 4 dimensions: (1) perspective taking (e.g. I believe that there are two sides to every question and try to look at them both), (2) empathic concern (e.g. I often have tender, concerned feelings for people less fortunate than me), (3) fantasy (e.g. I really get involved with the feelings of the characters in a novel), and (4) personal distress (e.g. Being in a tense emotional situation scares me). The validity and the dimensionality of the English version IRI scale were investigated using factor analysis, testing convergent and discriminant validity (Davis, 1983). In addition, this scale was validated in different countries (see, e.g. Cliffordson, 2001 for Sweden, Fernández, Dufey, & Kramp, 2015 for Chile and Siu & Shek, 2005 for China).

For the purposes of our study, we used three out of four dimensions. The internal reliabilities of the scales were: $\alpha = .82$ for perspective taking, $\alpha = .80$ for empathic concern, and $\alpha = .84$ for fantasy. The questionnaire was adjusted to school situations by incorporating images of teachers and students in the items, for example: “I often see things from the pupil’s perspective” instead of “…from another’s perspective” (Hen, 2010).

2.2.2. Emotional self-efficacy
To measure emotional self-efficacy, we used Emotional Self-Efficacy Scale (Kirk, Schutte, & Hine, 2008). This instrument comprised 32 items on a 5-point Likert scale (from 1—does not describe me at all to 5—describes me well). Each item represents one of the four dimensions: (1) understanding emotions (e.g. I know what causes my negative feelings), (2) perceiving other’s emotions (e.g. I am able to recognize other person’s negative feelings), (3) facilitating emotions (e.g. I know how to use positive feelings to produce good ideas), (4) regulating emotions (e.g. I am able to change negative feelings into positive ones). This instruments’ validity has been tested and established in different populations, like university students (Dacre Pool & Qualter, 2012) and young adolescents (Qualter et al., 2015), and in different ethnic groups, like Turkish students (Totan, 2014). In addition, this instrument was tested for test–retest reliability and was found to be reliable (Kirk et al., 2008). In our research, the internal reliabilities of the dimensions were: $\alpha = .83$ for understanding emotions, $\alpha = .89$ for perceiving other’s emotions, $\alpha = .87$ for facilitating emotions, and $\alpha = .84$ for regulating emotions.

2.2.3. Teaching self-efficacy
To assess teachers’ self-beliefs toward their teaching, we used a Teaching Self-Efficacy scale (Friedman & Kass, 2002). This instrument included 33 items on a 5-point Likert scale (from 1—does not describe me at all to 5—describes me well) measuring 2 dimensions: (1) the classroom context (e.g. I think I know when to involve my students in decisions concerning learning issues), (2) the school context (e.g. I think I can play an important role in solving serious school problems). In the current research, the internal reliabilities of the dimensions were: $\alpha = .86$ for classroom context, $\alpha = .91$ for school context.
To assess the robustness of the regression coefficients to the possibility of spurious associations, we used four additional variables in line with previous studies on teachers’ empathy. These included age, gender (1—male), academic degree (1—M.A., 0—B.A., or B.Ed. as a proxy for education), and years of teaching experience (see e.g. Castillo, Fernández-Berrocal, & Brackett, 2013; Stojiljković et al., 2012).

### 2.3. Analysis strategy

#### 2.3.1. Parcels

To measure our dependent and independent constructs, we created parcels of items. Parcels are usually computed by mean scoring of multiple indicators representing the same construct. In cases of relatively large number of indicators, parcels are often preferred over single items, because they allow one to reduce the number of indicators and thereby to avoid measurement problems such as method of variance, correlation between items’ measurement errors, and cross-loadings of items representing one factor, on another factor (Sass & Smith, 2006). Although this technique is sometimes criticized as a way “to sweep problems under the carpet” (see, e.g. Marsh, Nagengast, & Morin, 2013), we find it appropriate in our case due to high inter-item consistency of our scales and subscales.

#### 2.3.2. Data analysis

As a preliminary stage of our analysis, we created a bivariate correlation matrix between our research variables: parcels of items representing each theoretical construct and control variables (see Table 1). Then, using structural equation modeling, we performed a simultaneous confirmatory factor analysis, where our three constructs (emotional self-efficacy, teaching self-efficacy, and empathy) were represented by latent variables, and their indicators were represented by items parcels’ means.

Afterward, taking into account the control variables, we tested a model where emotional self-efficacy was a predictor, teaching self-efficacy was a mediator, and empathy was a predicted variable. This model has been tested twice: first with teacher self-efficacy as a full mediator (see Figure 1(A) and second as a partial mediator (see Figure 1(B)). These two nested models have been compared using Chi-square difference test, and the best fitting model has been chosen.

| Table 1. Pearson correlation coefficients between the research variables |
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|                   | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 10               | 11               | 12               |
| 1 Understanding   | .76***           | .46***           | .54***           | .40***           | .14              | .19              | .38**            | .39***           | −.11             | .01              | .20***           | .08              |
| 2 Perceiving      | .57***           | .71***           | .51***           | .16              | .26              | .35              | .48**            | −.11             | .02              | .25***           | .07              |
| 3 Facilitating    | .63***           | .58***           | .33***           | .25***           | .17              | .43**            | −.05             | .02              | .21***           | .07              |
| 4 Regulating      | .53***           | .23**            | .27**            | .32***           | .54***           | −.07             | −.03             | .21**            | .07              |
| 5 Class context   | .43***           | .27**            | .20**            | .49**            | .01              | .09              | .34***           | .07              | .01              |
| 6 School context  | .06              | .01              | .17**            | .08              | .04              | .20**            | .07              | .01              |
| 7 Fantasy         | .09              | .30**            | .03              | −.01             | .21**            | .07              | .04              | .20**            | .07              |
| 8 Empathic concern| .48**            | −.12             | −.07             | −.04             | .11              | .01              | .14              | .07              |
| 9 Perspective taking |                | −.11             | −.01             | .14              | .15              | −.07             | .33              | .07              |
| 10 Gender (1-male)|                |                  | .15              | −.07             | .33              | .07              |                  |
| 11 Academic degree (1-MA) |            |                  |                  | .33              | .07              |
| 12 Years of work experience |            |                  |                  |                  |                  |                  |                  |
| M                  | 3.68             | 3.71             | 3.30             | 3.36             | 3.45             | 3.25             | 2.81             | 4.13             | 3.58             | .28              | .20              | 11.55            |
| SD                 | .54              | .55              | .61              | .55              | .44              | .93              | .64              | .55              | .57              | .45              | .40              |

*p < .05.

**p < .01.

***p < .001.
3. Results
Examination of correlation matrix between the research variables revealed positive correlations between emotional self-efficacy and teaching self-efficacy parcels. These correlations were stronger for class-context parcel rather than school-context parcel. Similar pattern appears in correlation between empathy and teaching self-efficacy parcels, where the correlations of class-context and empathy parcels are stronger as well. In addition, there are positive correlations between emotional self-efficacy and empathy parcels. Finally, the control variables showed weak or no correlations with the empathy parcels (see Table 1).

Results of confirmatory factor analysis showed a good model fit ($\chi^2 = 40.66$, $df = 22$, $p < .01$, $\chi^2/df = 1.85$, $CFI = .98$, $TLI = .97$, $RMSEA = .06$, $PClose = .35$). All standardized factor loadings were above .40 and there was no cross-loading. All these support the scheme of construction of our latent variables.

Full structural equation model for prediction of empathy by emotional self-efficacy with teaching self-efficacy as a full mediator explained 49% of variance in empathy, but the model fit was relatively poor (see Figure 1(A) and Table 2).

Addition of direct path from emotional self-efficacy to empathy increased model explained variance up to 53% and improved the model fit (see Figure 1(B) and Table 2). Based on comparison between the two models, we concluded that the partial mediation model fits the data better, suggesting that emotional self-efficacy has direct as well as indirect positive effect on teachers’ empathy.
Decomposition of effects showed that the direct effect is twice stronger than the indirect one and that both effects are statistically significant.

4. Discussion
This study examined to what extent specific-task and broader-level self-efficacy beliefs contribute to empathy in teachers. Following recent research (Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003; Caprara et al., 2008; Di Giunta et al., 2010), the present study hypothesis was that emotional and teaching self-efficacy beliefs will predict empathy in teachers, while teaching self-efficacy beliefs will mediate the relationship between emotional self-efficacy and empathy among teachers.

The main findings indicated that emotional self-efficacy has a direct as well as an indirect positive effect on teachers’ empathy and that teaching self-efficacy partially mediated this relationship. These findings support the notion that teachers who believe in their efficacy to identify and regulate emotions will be able to be empathic toward their students, and that it is only partially mediated by teaching self-efficacy beliefs.

These findings support the findings of Caprara et al. (2008) regarding the direct contributions of emotional self-efficacies to young adults’ positive emotions and prosocial behaviors and strengthen the argument that regarding the dominance of broad-domain self-efficacies. It further suggests that teachers’ beliefs about their teaching abilities are important and relevant to teachers’ empathy (Cooper, 2004), but is only partially involved when teachers feel confident to handle their emotions (Jennings, 2011). Interestingly, these findings stress the relevance of enhancing emotional self-efficacy among teachers. Further findings indicated that both self-efficacies and empathy are positively related, especially regarding the class context. This supports the idea that the three constructs represent the larger domain of teachers’ social–emotional competencies, and that self-beliefs are associated with beliefs toward others (Fried, 2011; Jennings & Greenberg, 2009). This association becomes more apparent in the class context, where most teachers are on their own, and must depend on their inner self-beliefs (Stephanou et al., 2013).

Finally, our findings indicated that empathy was weakly or not associated with teachers’ gender, academic degree, or experience. Our findings add to the inconsistency of findings relating to

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χ² = 94.81, df = 41, p < .001, χ²/df = 2.31, CFI = .96, TLI = .93, RMSEA = .07, PClose = .05

χ² = 67.83, df = 40, p < .01, χ²/df = 1.70, CFI = .98, TLI = .96, RMSEA = .05, PClose = .49

Δχ² = 26.98, Δdf = 1, p < .001, ΔCFI = .02

R² of Teacher SE = .60, R² of empathy = .49.
R² of Teacher SE = .52, R² of empathy = .53.
teachers’ empathy (Arghode et al., 2013; Cooper, 2010), and stress the need to further study this emotional competence in teachers (Tettegah & Anderson, 2007).

The limitations of this study pertain mostly to the sample and to the self-reported measurements. Although the sample was of good size, it was composed mostly of female teachers who teach in elementary or high school. Junior high-school was less represented. This might suggest a limitation to generalization of findings across male teachers and all school levels. In addition, this research employed only self-report questionnaires, which may bias the findings as well, and was a cross-sectional study, which does not allow concluding about causal relationships between research variables.

Future studies should address these limitations, and further examine teachers’ social–emotional competencies, and how they contribute to affective teacher–student relationships. Additional research should explore task-specific and broad-domain self-efficacies in teachers, to better understand the relationship between them, and their associations to empathy and self-beliefs toward others. Finally, future research should emphasize ways to enhance teachers’ social–emotional competencies, and the specific roles of task-specific and broader-level self-efficacies.

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