

Effectiveness of a Teachers' Training Program on Their Core Self-Evaluations, Relationship with Students and Work Engagement

Theodoros Giovazolias
University of Crete, Greece

Eva-Manolia Syngelaki
American College of Greece--Athens, Greece

Antonia Papastylianou
National and Kapodistrian University of Athens, Greece

Abstract

Skills training for teachers is of major importance in order to improve the relationship between teachers and students and at the same time has the potential to improve and develop all other educational processes. A psycho-educational training program for primary and secondary school teachers was implemented in schools in Greece with the main goal to improve teachers' self-reported characteristics relating to self-efficacy and work involvement, and teacher-student relationships. Self-report measures were completed by two groups of teachers (intervention and control groups) before and immediately after the implementation of the training program to assess work engagement, core self-evaluations, and relationships with students. ANCOVA analyses showed significant improvement between the two groups in terms of core-self evaluations and student-teacher relationships after the training program. The implications of these findings as potentially protective factors for teachers' performance and prevention of other school-related distressing phenomena, and the limitations of the study are discussed.

Keywords: teachers' training, core self-evaluations, work engagement, teacher-student relationships

Introduction

Teaching is one of the professions associated with high levels of stress (Travers & Cooper, 1996). In a study comparing 26 different occupations in the UK on three stress-related variables (psychological well-being, physical health, and life satisfaction), teaching was one of the occupations reporting worse than average scores on each of the factors (Johnson et al., 2005). It has been argued that stress on teachers has been associated with a major restructuring of the profession, including changes in curriculum and student assessment (Koutrouba & Michala, 2017). It also has been suggested that teachers have found it difficult to cope with the fast pace of these changes (Lam & Yan, 2011). Some of the aspects reported by teachers as stressful include workload, relationships with students and colleagues, and student behavior (Papastylianou, Kaila, & Polychronopoulos, 2009; Travers & Cooper, 1996). Further, in a seminal study by Ingersoll (2001) it was found that teachers' job dissatisfaction underlying job departure is most often listed as being due to low salaries, lack of support from the school administration, student discipline problems, and lack of teacher influence over decision-making. Based on these concerns, there is a call for teachers to be supported in their need to adapt constantly; this is accomplished by developing new skills and knowledge, based on intelligent professional responsibility for students' learning including democratic knowledge and skills, strong equity, and genuine collaboration with multiple stakeholders (Cochran-Smith et al., 2017). Training programs could prove beneficial in this regard, as they could foster improvement in areas such as dealing with difficult classroom behaviors. By extension, they could help teachers better cope with job stress, as new skills could be developed to better deal with challenging situations in the classroom.

Theoretical and Empirical Background

Teacher psycho-education training programs

The school environment, in many ways, is a good choice for promoting the health of children and adolescents, as schools are an important place for socialization. Students spend at least one quarter of their waking hours in classrooms, where apart from developing cognitively, they also can find important supportive systems and meaningful relationships (Pianta, Hamre, & Allen, 2012). However, teachers are not frequently provided with support to develop skills for dealing more effectively with socioemotional and behavioral difficulties in the classroom (Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh, 2012). Still, adequate support and training are considered as necessary elements for promoting their own well-being before promoting the well-being of their students (Jennings & Greenberg, 2009). Teachers' psycho-educational training programs have been offered in school

settings as a means of targeting areas related to improving student outcomes (e.g., by preventing aggressive behaviors, etc.) (Orpinas & Horne, 2004), and increasing school readiness (Webster-Stratton, Reid, & Stoolmiller, 2008). However, efforts also have been made of late to improve teachers' own competencies, so they can develop more supportive and positive relationships with their students and engage in more effective classroom management—and thus reduce disruptive classroom behaviors (Hickey et al., 2017; Jennings & Greenberg, 2009). Professional development programs have been implemented with the aim to change teachers' knowledge and attitudes, their practices in the classroom, and the learning outcomes of students (Guskey, 2002). Professional training in which teachers actively learn (e.g., by reflecting on their practices, experiential learning, and receiving feedback on teaching practices), and collegial learning that occurs as a result of school networks and peer coaching, has been found to impact their practices in the classroom (Desimone, Porter, Garet, Yoon, & Birman, 2002; van Driel, Beijaard, & Verloop, 2001). Additionally, implementation of professional development activities that emphasize how students learn content and teaching methods that enhance learning have been found to be among the most effective elements in increasing teachers' knowledge and efficacy (Ingvarson, Meiers, & Beavis, 2005). Further, training and technical assistance for teachers have been found to be among the most important factors when it comes to increasing the effectiveness of prevention and intervention programs. Benefits include increasing preparedness for new tasks, mastery of specific skills, and improving teachers' sense of self-efficacy (Durlak & DuPre, 2008; Kyriakides et al., 2014).

Teachers' core self-evaluations

In training teachers, outcomes can be measured in terms of individual differences (i.e., core self-evaluations – self-efficacy, locus of control), job-related characteristics (i.e., work involvement) and finally, in terms of teachers' relationships with students. Teachers' individual characteristics such as stress levels, negative affect, and self-efficacy have been found to be significant predictors of teacher-student relationships (Yoon, 2002). Core self-evaluations, involving broad personality traits and specific core traits (i.e., self-esteem, generalized self-efficacy, neuroticism, and locus of control), have been found to correlate significantly with job satisfaction, job performance, and life satisfaction (Judge, Erez, Bono, & Thoresen, 2003). Other positive outcomes found in individuals with high core self-evaluations include lower levels of stress and conflict, better coping in the face of adversity, and attainment of work success (Judge, 2009). Further, core self-evaluations have been found to positively affect individuals' physical and psychological well-being (Tsaousis, Nikolaou, Serdaris, & Judge, 2007). In the only relevant study, Sudha and Shahnawaz (2013) measured core self-evaluations in a sample of educators in special and typical education, and found that it was positively and significantly related to life satisfaction and

positive affect and negatively related to negative affect in both groups.

Work-related stress

As one can see, teachers' individual characteristics have been found to influence important job-related dimensions such as job performance and satisfaction (Klassen & Chiu, 2010). Work-related characteristics also can influence stress levels. High levels of stress can occur when job demands such as disruptive student behaviors, work overload, and poor environmental work conditions demand considerable effort (Darmody & Smyth, 2016). Teachers' perceived working conditions have also been linked to high attrition rates in the relevant literature (Borman & Dowling, 2008; Geiger & Pivovarova, 2018; Ladd, 2011; Loeb, Darling-Hammond, & Luczak, 2005).

Some of these stressors might not easily be controlled; others, however, can be the target of training programs educating teachers on how best to deal with such issues. These educational efforts become vital when considering that teacher stress can lead to adverse outcomes such as burnout (Friedman, 2011; Hakanen, Bakker, & Schaufeli, 2006). In this regard, student discipline problems have been found to be a strong predictive factor (Hickey et al., 2017; Jennings & Greenberg, 2009; Kokkinos, 2007). Burnout is accompanied by emotional exhaustion, depersonalisation, and feelings of incompetency (Papastylianou et al., 2009; Schaufeli & Salanova, 2007), all of which can have visible effects on job performance. On the contrary, work engagement, a positive state of mind relating to characteristics such as vigor and dedication (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002), has been found to relate to commitment in different working environments (Hakanen et al., 2006). Both work engagement and burnout have been found to be influenced by individual differences in personality characteristics such as neuroticism and temperament (Langelaan, Bakker, van Doornen, & Schaufeli, 2006). Teachers' work-related stress, which often can result from ineffective classroom management, can in turn affect the quality of the teacher-child relationship (McCarthy, Lineback, & Reiser, 2015), a fundamental element of student engagement in the learning process (Pianta et al., 2012). Studies in this area have mostly investigated outcomes of work-related stress such as burnout and its detrimental impact. The current research, in contrast, investigated positive effects of work, namely engagement.

Student-teacher relationships

Based on the aforementioned research, it becomes evident that teachers' individual characteristics, as well as work-related factors, can influence student-teacher relationships. When students' connection with their teachers is characterized by qualities such as support and closeness, student adjustment in the classroom can be facilitated (Wubbels et al., 2015). With that, more positive cognitive, behavioral, and socioemotional developmental outcomes can emerge (Hamre & Pianta, 2001; McCaslin, Sotardi, & Vega, 2015). More specifically, the teacher-child relationship has been found to relate to

early school adjustment (Birch & Ladd, 1997; Carter & Doyle, 2006) as well as children's levels of aggression (Meehan, Hughes, & Cavell, 2003; Oldenburg et al., 2015). A positive teacher-student relationship can mitigate adverse circumstances in the home environment and, further, enhance a student's motivation and academic performance (Hamre & Pianta, 2001; Roorda, Koomen, Spilt, & Oort, 2011). The teacher's role seems to be vital in encouraging collaborative relationships between students, building on students' strengths, and promoting a positive socio-emotional climate within the classroom (Birch & Ladd, 1998; Jennings & Greenberg, 2009; Jones, 2011). It thus becomes imperative to examine what can promote positive teacher-student relationships, as they can serve as protective factors when it comes to dealing with difficult issues such as bullying (Hyman et al., 2006). Indeed, as the teacher-student relationship improves, students become more able to confide in teachers with respect to both personal and interpersonal difficulties (Kyriakides et al., 2014; Orpinas & Horne, 2006).

Purpose of the Study

The purpose of the present study was to investigate the effectiveness of a 35-hour teacher education training program for primary and secondary school teachers in Greece to improve teachers' core self-evaluations, work engagement, and student-teacher relationships. The study aimed at adding to the existing literature on interventions for improving teachers' own well-being (Cook et al., 2017) and enhancing their relationships with students by being in a better position to manage challenging behaviors in the classroom (Hickey et al., 2017). Further, as to our knowledge there is limited research that has explored core self-evaluations in a teacher population and no other training program has included it as a key variable, it aims to extend the relevant literature in this respect. By focusing on the outcomes of the training program on teachers, this study endeavors to fill a gap in the literature as a common practice in many relevant studies is to focus solely on student outcomes (Murray & Greenberg, 2001).

Indeed, teacher training can increase teachers' self-efficacy (Gregus et al., 2017). The concept of efficacy, "beliefs that individual teachers hold about their own capacities or abilities to act in ways that bring about student learning and development" (Smylie, 1990, p. 49), has been found to be related to various outcomes, ranging from teacher's own job satisfaction to their interactions with their students and the teaching strategies used in the classroom (Allinder, 1994; Skaalvik & Skaalvik, 2010). Self-efficacy has also been found to have a bidirectional relationship with work engagement, so that personal resources (e.g., self-efficacy) influence the engagement of teaches and vice versa (Simbula, Guglielmi, & Schaufeli, 2011). To evaluate the effectiveness of the training program the following exploratory research questions were addressed:

1. Does the program improve teacher's core self-evaluations?
2. Does the program improve work engagement?
3. Does the program improve student-teacher relationships?

Method

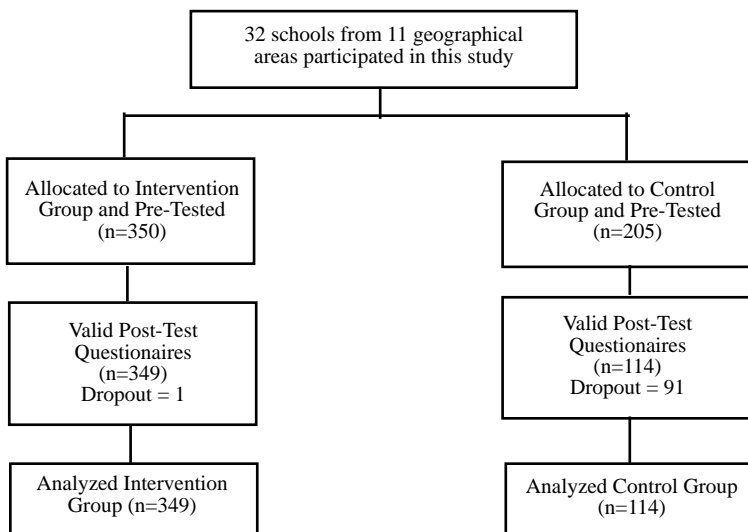
Sample

A total of thirty-two primary and secondary education schools participated in the study. The schools were selected through a national invitation of KANEP (Center for the Development of Educational Policy), an Institute that represents the Greek General Confederation of Labour (GSEE) in the area of Education and Lifelong learning. KANEP participates in all national and regional bodies dealing with lifelong learning and employment, both on policy and implementation level. Of the 470 schools that initially applied for a “Psycho-educational Intervention on Teachers’ Professional Development”, thirty-two schools from eleven different areas were randomly selected, with an effort to obtain a broad geographical representation. Three hundred and fifty (350) teachers were allocated in the Intervention Group (IG) and another 205 (colleagues from the same schools) were allocated in the Control Group (CG) and did not receive the psycho-educational training.

The final total sample of the study consisted of 463 teachers (74.7% females), 349 in the IG and 114 in the CG, respectively. One (1) teacher from the initial IG and ninety one (91) teachers from the initial CG dropped out from the post-test phase and did not complete the questionnaires at post-intervention. Figure 1 presents the flow of participants through the study. The age mean of the total sample was 44.2 years ($SD=8.1$), their age range was from 24 to 64 years, and their average teaching experience was 16.1 years ($SD=7.9$). About 41.3% of the total sample were primary school teachers, 37.6% worked in high schools and 12.7% in Lyceums.

Figure 1

The flow of participants through the study



Measures

Data were collected by means of self-report questionnaires, as follows:

Demographics. A demographic questionnaire was administered to collect information on gender, age, nationality, academic subject studied, years of professional experience and marital status.

Utrecht Work Engagement Scale (UWES). The UWES, a self-report questionnaire, consists of 17 items (UWES-17), which measure the three underlying dimensions of work engagement proposed by Schaufeli and Bakker (2003): vigor (six items), dedication (five items), and absorption (six items). Sample items include “*My job inspires me*” and “*I get carried away when I am working*”. Participants responded using a 7-point Likert scale (0=Never, 6= Always), with high score denoting high work engagement. Recent studies have supported the reliability and validity of the scale (Schaufeli, Bakker, & Salanova 2006). Higher scores indicate better work engagement. In the present study, Cronbach coefficient for the total scale was found to be high, $\alpha = .96$.

Student-Teacher Relationship Scale (STRS). The STRS (Pianta, 2001) was originally designed for assessing teachers' relationships with younger students, mainly from the age of 4 to 8 years (Pianta, 2001). However, as there are limited measures for assessing the teacher's perception of the relationship, especially with older children, many studies have used the STRS in upper elementary and middle school children (e.g., Valiente, Lemery-Chalfant, Swanson, & Reiser, 2008). Participants were instructed to think of a particular student with whom they were either in conflict or had difficulties in relating to him/her. Teachers had to be familiar with the individual child for at least 6 weeks before they rated their relationship on the STRS. This period was based on the 1 month to 2 months of familiarity required for behavior reports of teachers (Reynolds & Kamphaus, 2004). Sample items include “*This child and I always seem to be struggling with each other,*” and “*This child seems to feel secure with me.*” The original version of STRS consists of 27 items which are organized in three sub-factors (conflict, closeness, and dependency).

The STRS also yields scores on the overall relationship quality. However, in this study a brief version with the first two factors (conflict -12 items, closeness – 11 items) was used, as the dependency factor has been reported to show a low reliability; recent studies have also focused on these two relationship features (e.g., Ewing & Taylor, 2009). Higher scores indicate a better relationship between teachers and students. The overall relationship score has demonstrated adequate reliability (four-week test-retest reliability = .89), internal consistency (.89) and concurrent validity in prior research studies (Pianta, 2001). The reliability of the combined (two) scales used in this study was high, $\alpha = .80$.

The Core Self – Evaluations Scale (CSES). The CSES developed by Judge, Erez, Bono, and Thoresen (2002) measures what is believed to be a common core construct, namely core self-evaluations. The construct includes four personality traits: self-esteem, the overall value that one places on oneself; generalized self-efficacy, an evaluation of the extent in which

one performs in a variety of tasks/situations; neuroticism, the tendency for a negative cognitive/explanatory style; and locus of control, namely the attributions about the causes of events in one's life (internal vs external). Taken together, core-self evaluation is considered to be a basic, appraisal of one's effectiveness and overall capability as a person (Judge, Locke, & Durham, 1997). Sample items include "I complete tasks successfully" and "I determine what will happen in my life." Higher scores indicate better core self-evaluations. Previous research has confirmed the high reliability of CSES (e.g., Erez & Judge, 2001). The scale's reliability in this study was also high, $\alpha = .80$.

Fidelity Measures

This study included the following fidelity measures: a program evaluation questionnaire and a trainer checklist.

Program Evaluation Questionnaire. Participants of the intervention group completed a program evaluation questionnaire, developed by the authors of this study, after the completion of the Training Program, in order to obtain information regarding their experience during the program. Sample items of this 11-item questionnaire included: "The Training Program helped me to better understand my emotions", "The Training Program activities were interesting", and "I think that I will apply in my life things that I have learned in the Training Program". Participants responded in a 5-point Likert scale (1= not at all, 5 = very much).

Trainer Checklist. At the end of every session, group leaders completed the Trainer checklist for that particular session. This form was designed for the purpose of this study and was used to check whether trainers were adhering to program fidelity such as showing the necessary video vignettes, engaging in recommended practice exercises (e.g., role plays), and using the key learning principles. Items were answered in a yes/no format and included areas such as "Write agenda on the board," "Brainstorm ideas for building relationships with students," "performing role-play for conflict resolution," etc. Content validity was established by review of the checklist by the authors of this study as well as other experts in this field of research. There was agreement that items on the checklist represented the content of the Training Program.

Procedure

Both groups completed the study questionnaires immediately before the commencement of the Training Program (Time 1). Each participant was assigned an identification code (i.e., school number + class number + date of birth + gender) to ensure confidentiality. Participants completed the same questionnaires two weeks after the completion of the program (Time 2). The only exception was that intervention group participants filled a Program Evaluation Questionnaire, developed for the purposes of this study. Data were collected between October 2014 (Time 1) and April 2015 (Time 2). The Training program duration was 35 hours within a period of two months (four 2-day meetings on a fortnight basis). The meetings took place on weekends (in participating schools' premises) so that the everyday teaching

curriculum would not be distracted. Participants of the intervention group were assigned in sixteen groups (21-22 participants in each group). Eight trained professional psychologists implemented the program. Each session started with a brief recapitulation of the material covered in the previous session. After that, a brief introduction was made on the topic discussed in that day using PowerPoint material.

Other supplementary material such as case vignettes, videos and educational dvd's were used appropriately. The PowerPoint and supplemental materials were provided to each participant after each session. Participants were encouraged to bring their own experiences/examples to the discussion (i.e., a difficult experience with a student) in order to increase personal meaning of the training sessions. Role-plays were used in order to demonstrate effective communication and conflict resolution skills. Participants were encouraged to work in small groups (3-4 individuals) and then feedback from each member regarding the experience of role-plays and a more general discussion would take place in the larger group. Each training session ended with a summary (either from the trainer or from a participant) of the key points covered in that particular meeting.

The Psycho-Educational Program

The content of this psycho-educational training program was based on previous material developed by authors (e.g., Giovazolias, Kourkoutas, Mitsopoulou, & Georgiadi, 2010; Mitsopoulou & Giovazolias, 2015; Kyriakides et al., 2014) on the recognition, prevention and management of school bullying, on effective strategies for resolving conflicts within the school environment, as well as on standard classroom/school based programs extensively discussed in the literature (e.g., Reeve & Cheon, 2014; Swearer, Espelage, & Napolitano, 2009). Before the intervention program, teachers received a written manual summarizing the content discussed during the 35 hour program. The content of the program consisted of training/education on understanding, identifying and managing disruptive behaviors, ranging from student conflicts to bullying to violence, (e.g., etiological factors, relationship with the socio-emotional development of children as well as their academic achievement). Further, it emphasized the role of bystanders and ways of empowering effective reporting of incidents of aggression within the school context. A strong element of the program concerned increasing effective communication skills (verbal, non-verbal) as well as an emphasis on children's emotional experiences at school (as opposed to the emphasis on the cognitive aspects of their school life). Further, emphasis was given on teacher-students relationships and ways of improving effective interaction between these two parties. More specifically, the program aimed to teach participants how to develop a positive relationship with their students, use specific labeled praise for appropriate behavior, provide incentives for target behaviors that were difficult for the child, ignore minor inappropriate behavior and provide positive reinforcement, use positive discipline strategies, and promote emotion regulation and problem solving with students. Investment in developing a positive relationship with children has been found to be a key element in many similar programs (Webster-Stratton & Reid, 2002).

The training material (available on request by the first author) included a brief theoretical introduction on the issues discussed, role plays, educational dvd's, simulations and hypothetical implementation of different scenarios. After the completion of each meeting, a general discussion would take place where feedback was provided by each part (trainer-trainees).

Data Analytic Plan

The strength and direction of the relationships between variables were tested using Spearman rho coefficient. The use of non-parametric tests was decided on the basis of the data being non-normally distributed as it was shown by the use of the Kolmogorov-Smirnov statistic. An a priori power analysis was conducted using the software package, G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). The analysis indicated that a sample size of 210 would be sufficient to detect significant interaction effects with a power of .95 and an alpha of .05. Post-intervention differences between intervention and control groups in work engagement (UWES), student-teacher relationship (STRS) and core self – evaluations (CSES) scores were analyzed using analysis of covariance (ANCOVA), while covarying for pre-intervention scores, as recommended by Van Bruekelen (2006). The assumptions for the statistical tests were fulfilled. The continuous outcomes in the ANCOVA analyses were normally distributed and had equal variances between groups (homogeneity) for student-teacher relationship and core self – evaluations but not work engagement, as indicated by Levene's test ($F_{1, 509} = 7.39, p < .001$).

An unbiased estimate of the effect size (ES) was also computed for the total score of each instrument by partial η^2 of ANCOVA. The level of significance accepted for all comparisons was 5%. These analyses were performed using SPSS, version 21 at the University of Crete.

Results

We firstly examined whether participants of the control group who completed the study ($n=114$) differed from those who dropped out ($n=91$). Results of chi-square tests showed that there were no differences (all p values $> .05$) on gender, age, years of experience, marital status and results of t-tests showed no group differences on the three variables used in this study [Work Engagement $t(167) = 1.35, p = .18$; Student-Teacher Relationship $t(165) = -.14, p = .88$; Core Self – Evaluations $t(167) = .17, p = .87$]. We therefore concluded that the control group drop-outs were comparable with the controls participated in both phases of the study and that no selective drop-out had occurred.

Spearman's rho correlations among the three variables showed (at pre-intervention) that there is a positive correlation between core-self evaluations and reported student-teacher relationship ($\rho = .306, p < .001$) and work engagement ($\rho = .292, p < .001$). Further, student-teacher relationship was positively correlated with work engagement ($\rho = .202, p < .001$).

Regarding the ANCOVA analysis, it was found that the mean pre-intervention score of core self – evaluations was 41.81 ($SD=5.92$) for the

intervention group and 41.79 (SD=5.67) for the control group, respectively. The mean post-intervention scores for the two groups were 45.10 (SD=6.09) and 41.87 (SD=5.66), respectively. After controlling for the pre-intervention mean differences, findings showed a significant impact of intervention on core self – evaluations scores in the two groups between pre- and post intervention [$F(1, 358) = 4.91, p < .01, \eta^2 = .06$]. The size of the last two significant relationships ($\eta^2 = .06$) was found to be equivalent to Cohen's (1988) convention for a small effect size.

As for the student-teacher relationship scores, the mean pre-intervention score was 34.26 (SD=6.70) for the intervention group and 34.14 (SD=6.92) for the control group, respectively. The mean post-intervention scores for the two groups were 37.10 (SD=6.96) and 34.38 (SD=6.59), respectively. After controlling for the pre-intervention mean differences, findings showed a significant impact of intervention on student-teacher relationship scores in the two groups between pre- and post-intervention [$F(1, 347) = 5.92, p < .05, \eta^2 = .07$].

Finally, the mean pre-intervention score of work engagement was 85.22 (SD=11.42) for the intervention group and 81.85 (SD=14.40) for the control group, respectively. The mean post-intervention scores for the two groups were 84.95 (SD=11.78) and 82.06 (SD=14.50), respectively. After controlling for the pre-intervention mean differences, findings showed a non-significant impact of intervention on work engagement scores in the two groups between pre- and post-intervention [$F(1, 347) = 2.28, p = .13, \eta^2 = .03$].

Implementation Fidelity

Participants evaluated the Training Program in a very positive manner. For example, 86.5% of respondents reported that they found it to be “useful” and “very useful”, 73.4% reported that they were helped “very” and “very much” to deal with negative emotions and situations, 73.2% found the activities of the program to be “very” and “very much” interesting, 83.6% reported that they would apply it in their lives many things learned during the program “very” and “very much,” and 93.1% reported that similar programs should be implemented in schools (“very” and “very much”). Regarding respondents' involvement, 72.5% reported that they participated “to a large” or “to a great” extent throughout the program (e.g., active participation in discussions, role plays, etc). Further, the analysis of the Trainer Checklist data showed that the percentages of adherence ranged between 60-80% for all group leaders, denoting a high program fidelity rate.

Discussion

The aim of this study was the evaluation of the effectiveness of a teachers' training program on their perceived levels of work engagement, core self-evaluations, and their relationship with their students. A key finding was that the training program had a significant impact on core self-evaluation scores in the intervention versus the control group. As noted earlier, various positive outcomes have been associated with individuals demonstrating

high core self-evaluations (i.e., lower levels of stress and conflict, better coping with adversity, and attainment of work success; Judge, 2009). This particular finding is noteworthy, in that teachers' professional practices have been shown to be influenced by their self-efficacy beliefs (Allinder, 1994; Han & Weiss, 2005), an essential element of this construct. A recent study on a resiliency teacher training program found improvements in relation to self-efficacy (Cook et al., 2017).

However, to our knowledge, with the exception of the Sudha and Shahnawaz's (2013) study on special education teachers, no other study has explored core self-evaluations in a teacher population and no other training program has included it as a key variable. Although we measured core-self evaluations as a general personality disposition (and not directly with regards to teachers' intervention practices when it comes to incidences such as conflicts between students and bullying) we could infer that the training program would have empowered them in intervening more effectively when such episodes happen between students. For example, when it comes to preventing phenomena such as school bullying, it has been found that teachers play an important role in preventing and reducing the phenomenon (Kochenderfer-Ladd & Pelletier 2008; Longobardi, Iotti, Jungert, & Settanni, 2018); however, the extent to which they would intervene in bullying episodes in their classrooms depends largely on their self-perceived ability to handle conflict among students (van der Zanden, Denessen, & Scholte, 2015). Yoon (2004) has stressed that teachers who believe that they are unable to handle bullying, regardless of whether these beliefs are accurate or not, are less likely to actually intervene in such episodes.

Another important finding was the significant impact of the intervention on student-teacher relationship scores in the intervention group versus the control group between pre- and post intervention. The importance of teacher-student relationship in different levels has been noted extensively in the literature. For example, the instructional and emotional support provided by teachers to students has been found to play an important role to the risk of early school failure (Hamre & Pianta, 2005; Kyriakides et al., 2014). This finding attests further to the significance of teacher training and support. Teacher training can be vital in augmenting particular skills as this can lead to better dealing with students at risk or with difficulties (Kourkoutas & Giovazolias, 2015) and thus result in improved health-related outcomes and well being in students (Shepherd et al., 2016). In addition, it has been suggested that if teachers show proximity and accepting feelings to their pupils, it is likely that pupils also show caring and respectful behaviors in interactions with their teacher and peers (Gest & Rodkin, 2011). We strongly feel that the communication skills element of the program has played a significant role for the difference between the two groups of this study. Indeed, previous research has suggested that effective communication skills are regarded – among others - both by students (Pozo-Muñoz, Reboloso-Pacheco, & Fernández-Ramírez, 2000) and teachers (Letafati & Zarini, 2015; Shoffner, 2009) as a key teacher characteristic which promotes the establishment of trusting relationships between these two parties. The trusting relationship is in turn considered to encourage students to feel comfortable and experience

strong motivation for learning and less aggressive tendencies (Koutrouba, 2012). In line with this, several researchers have argued that teachers who demonstrate care (e.g., through empathic listening) to their students may inhibit aggressive behaviors by creating a sense of connectedness in the classroom in which students care about each other (Allen, 2010; Hamre & Pianta, 2001; Koomen, Verschueren, van Schooten, Jak, & Pianta, 2012).

However, no differences were found between the intervention and the control groups in participants' work engagement scores. As already noted, work engagement is a central construct in research on employee performance (Bakker & Leiter, 2010). Especially for teachers, work engagement is important as it has been shown that the more teachers are engaged in their work, the better their pupils perform, and the less likely teachers are to refrain from their jobs (Runhaar, Sanders, & Konermann, 2013). Although previous research has described effective training programs which have focused on reducing work stress and increasing work engagement in teacher populations (Mojsa-Kaja, Golonka, & Marek, 2015), this was not achieved in our case. This finding could be interpreted in two ways; first, we need to mention that teaching is considered to be one of the most stressful professions (Kyriacou, 2001) and teachers have been reported to show the highest stress and burnout levels compared to workers in other human services and other jobs in general (Johnson, et al., 2005). This means that work (dis)engagement is a rather 'difficult area' when it comes to teachers, as the characteristics that accompany this state (higher levels of exhaustion, cynicism) are quite 'resistant' to change (Maslach, Schaufeli, & Leiter, 2001; Papastylianou et al., 2009). Moreover, it is believed that the current socio-economic situation in Greece may have played a crucial role for this finding. Greece has experienced a serious economic recession over the last 7 years and the teaching profession has suffered serious salary reductions within this period. An inadequate salary, combined with lack of support from central government and restricted resources, as well as constant changes within the profession, seem to have dramatically reduced Greek teachers' job satisfaction and willingness to invest energy and commitment to their profession. Indeed, recent literature has identified these elements as specific and powerful stressors in teachers' work (Guglielmi, Bruni, Simbula, Fraccaroli, & Depolo, 2016).

The findings of this study provide further evidence for the effectiveness of a training program on teachers themselves. This is often not considered; a common practice in many relevant studies is to focus solely on student outcomes (Murray & Greenberg, 2001). More specifically, this study provides an empirical basis for developing psycho-educational training programs that would help teachers improve their relationship skills and their self-efficacy (i.e., in managing/resolving conflict among students) through strengthening of protective personality factors. Although our data clearly suggest that attending such training programs may be helpful (as was also indicated by the positive evaluation of the program), future studies could determine what particular aspects of those experiences impact what specific cognitions and feelings associated with teachers' overall self-efficacy and positive core-self evaluations. An additional limitation of this study is that

we relied solely on teachers' self reports for the variables studied (e.g., we did not measure the actual bullying/conflicts incidents in their schools, nor did we consider their students' perceptions on the variables tested). This fact could potentially raise some concerns regarding positive presentation bias (participants wanting to "look good" to researchers; Kazdin, 1998). However, evidence from relevant studies shows that teachers do report treatment integrity accurately (Sanetti & Kratochwill, 2011). Further, the use of a control group enabled us to test the post-intervention differences while covarying for pre-intervention scores. Another limitation has to do with the measurement of teacher-student relationship improvement. As already noted, the STRS asks teachers to assess their relationship with individual children and participants of this study completed the measure referring to a single student. However, there are many factors that can influence teacher-student relationships that go beyond a training program. Also, determining how the training impacts the relationship between one teacher and student does not mean that the teacher has improved in teacher-student relationships overall, but only with this particular child. Although other studies (Zee, de Jong, & Koomen, 2017) have also employed this particular methodology using similar measures, future studies should assess then improvement of teacher-student relationships in a whole classroom level.

In conclusion, data from this research provided support for the idea that teachers' training programs with the aim of improving teachers' personality characteristics closely associated with their job performance, as well as student-teacher relationships, can be supportive to their educational role. It can also be an important intermediate step in preventing and successfully coping with prevalent phenomena such as disruptive classroom behaviors and school bullying. Indeed, helping teachers be aware of their behaviors and feelings toward individual students and improve their communication skills may be an important first step forward in the process of increasing both teacher self-efficacy and teachers' positive perceptions of the student-teacher relationship. A future goal would be to ensure that more psycho-educational training programs are incorporated in the school curricula, so that more teachers can eventually benefit from them. ■

References

- Allen, K. P. (2010). Classroom management, bullying, and teacher practices. *The Professional Educator, 34*, 1–15.
- Allinder, R. M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17*(2), 86–95.
- Bakker, A. B., & Leiter, M. P. (Eds.). (2010). *Work Engagement: A Handbook of Essential Theory and Research*. New York: Psychology Press.
- Birch, S. H., & Ladd, G.W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*(1), 61–79.
- Birch, S. H., & Ladd, G. W. (1998). Children's interpersonal behaviors and the teacher-child relationship. *Developmental Psychology, 34*(5), 934–946.
- Borman, G. D., & Dowling, N. M. (2008). Teacher attrition and retention: A meta-analytic and narrative review of the research. *Review of Educational Research, 78*(3), 367–409.
- Carter, K., & Doyle, W. (2006). Classroom Management in Early Childhood and Elementary Classrooms. In C. M. Evertson & C. S. Weinstein (eds). *Handbook of Classroom Management: Research, Practice, and Contemporary Issues* (pp. 373–406). Abingdon: Routledge.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New Jersey: Lawrence Erlbaum Associates, Inc. Publishers.
- Cochran-Smith, M., Baker, M., Burton, S., Chang, W. -, Cummings Carney, M., Fernández, M. B., . . . Sánchez, J. G. (2017). The accountability era in US teacher education: Looking back, looking forward. *European Journal of Teacher Education, 40*(5), 572–588.
- Cook, C. R., Miller, F. G., Fiat, A., Renshaw, T., Frye, M., Joseph, G., & Decano, P. (2017). Promoting secondary teachers' well-being and intentions to implement evidence-based practices: Randomized evaluation of the achiever resilience curriculum. *Psychology in the Schools, 54*(1), 13–28.
- Darmody, M., & Smyth, E. (2016). Primary school principals' job satisfaction and occupational stress. *International Journal of Educational Management, 30*(1), 115–128.
- Desimone, L.M., Porter, A.C., Garet, M.S., Yoon, K.S., & Birman, B.F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis, 24*(2), 81–112.
- Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*, 327–350.
- Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal setting, motivation, and performance. *Journal of Applied Psychology, 86*, 1270–1279.
- Ewing, A. R., & Taylor, A. R. (2009). The role of child gender and ethnicity in teacher-child relationship quality and children's behavioral adjustment in preschool. *Early Childhood Research Quarterly, 24*, 92–105.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149–1160.
- Friedman, I.A. (2011). Classroom Management and Teacher Stress and Burnout. In C. M. Evertson & C. S. Weinstein (eds). *Handbook of Classroom Management:*

- Research, Practice, and Contemporary Issues* (pp. 925-944). New York: Routledge.
- Geiger, T., & Pivovarova, M. (2018). The effects of working conditions on teacher retention. *Teachers and Teaching: Theory and Practice*, 24(6), 604-625.
- Gest, S. D., & Rodkin, P. C. (2011). Teaching practices and elementary classroom peer ecologies. *Journal of Applied Developmental Psychology*, 32, 288-296.
- Giovazolias, T., Kourkoutas, E., Mitsopoulou, E., & Georgiadi, M. (2010). The relationship between perceived school climate and the prevalence of bullying behavior in greek schools: Implications for preventive inclusive strategies. *Procedia - Social and Behavioral Sciences*, 5, 2208-2215.
- Gregus, S. J., Rodriguez, J. H., Pastrana, F. A., Craig, J. T., McQuillin, S. D., & Cavell, T. A. (2017). Teacher self-efficacy and intentions to use antibullying practices as predictors of children's peer victimization. *School Psychology Review*, 46(3), 304-319.
- Guglielmi, D., Bruni, I., Simbula, S., Fraccaroli, F., & Depolo, M. (2016). What drives teacher engagement: A study of different age cohorts. *European Journal of Psychology of Education*, 31(3), 323-340.
- Guskey, T.R. (2002). Professional development and teacher change. *Teachers and Teaching: theory and practice*, 8, 381-391.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495-513.
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, 72(2), 625-638.
- Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development*, 76(5), 949-967.
- Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology*, 33, 665-679.
- Hickey, G., McGilloway, S., Hyland, L., Leckey, Y., Kelly, P., Bywater, T.,... O'Neill, D. (2017). Exploring the effects of a universal classroom management training programme on teacher and child behaviour: A group randomized controlled trial and cost analysis. *Journal of Early Childhood Research*, 15(2), 174-194.
- Hyman, I., Bryony Kay, B., Tabori, A., Weber, M., Mahon, M., & Cohen, I., (2006). Bullying: Theory, Research and Interventions. In C. M. Evertson & C. S. Weinstein (eds). *Handbook of Classroom Management: Research, Practice, and Contemporary Issues* (pp. 855-886). Abingdon: Routledge.
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.
- Ingvarson, L., Meiers, M., & Beavis, A. (2005). Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes & efficacy. *Education Policy Analysis Archives*, 13(10), 1-28.
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, 79(1), 491-525.
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20(2), 178-187.
- Jones, V. (2011). How Teachers learn to be Classroom Managers. In C. M. Evertson & C. S. Weinstein (eds). *Handbook of Classroom Management: Research, Practice, and Contemporary Issues* (pp. 909-924). New York: Routledge.

- Judge, T. A. (2009). Core self-evaluations and work success. *Current Directions in Psychological Science, 18*(1), 58-62.
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Do the traits self-esteem, neuroticism, locus of control, and generalized self-efficacy indicate a common core construct? *Journal of Personality and Social Psychology, 83*, 693-710.
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The Core Self-Evaluations Scale (CSES): Development of a measure. *Personnel Psychology, 56*, 303-331.
- Judge, T. A., Locke, E. A., & Durham, C.C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior, 19*, 151-188.
- Kazdin, A. E. (1998). *Research design in clinical psychology*. Boston: Allyn and Bacon.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741-756.
- Kochenderfer-Ladd, B., & Pelletier, M. (2008). Teachers' views and beliefs about bullying: Influences on classroom management strategies and students' coping with peer victimization. *Journal of School Psychology, 46*, 431-453.
- Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology, 77*, 229-243.
- Koomen, H. M. Y., Verschuere, K., van Schooten, E., Jak, S., & Pianta, R. C. (2012). Validating the student-teacher relationship scale: Testing factor structure and measurement invariance across child gender and age in a dutch sample. *Journal of School Psychology, 50*(2), 215-234.
- Kourkoutas, E. & Giovazolias, T. (2015). School-based counselling work with teachers: An integrative model. *European Journal of Counselling Psychology, 3*(2), 137-158.
- Koutrouba, K. (2012). A profile of the effective teacher: Greek secondary education teachers' perceptions. *European Journal of Teacher Education, 35*(3), 359-374.
- Koutrouba, K., & Michala, M. (2017). Professional satisfaction of secondary education teachers: The case of greece. *International Journal of Instruction, 10*(2), 85-102.
- Kyriakides, L., Creemers, B. P. M., Muijs, D., Rekers-Mombarg, L., Papastilianou, D., Van Petegem, P., & Pearson, D. (2014). Using the dynamic model of educational effectiveness to design strategies and actions to face bullying. *School Effectiveness and School Improvement, 25*(1), 83-104.
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review, 53*, 27-35.
- Ladd, H. (2011). Teachers' perceptions of their working conditions: How predictive of planned and actual teacher movement? *Educational Evaluation and Policy Analysis, 33*(2), 235-261.
- Lam, B., & Yan, H. (2011). Beginning teachers' job satisfaction: The impact of school-based factors. *Teacher Development, 15*(3), 333-348.
- Langelan, S., Bakker, A., van Doornen, L.J.P., & Schaufeli, W.B. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences, 40*, 521-532.
- Letafati, R., & Zarini, A. (2015). Empathy, an influencing behavioral model in the interaction between teacher and learner. *Language Related Research, 6*(1), 229-252.
- Loeb, S., Darling-Hammond, L., & Luczak, J. (2005). How teaching conditions predict teacher turnover in California schools. *Peabody Journal of Education, 80*(3), 44-70.
- Longobardi, C., Iotti, N. O., Jungert, T., & Settanni, M. (2018). Student-teacher relationships and bullying: The role of student social status. *Journal of Adolescence, 63*, 1-10.

- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397–422.
- McCarthy, C.J., Lineback, S., & Reiser J. (2015). Teacher stress, emotion, and classroom management. In E.T. Emmer, & E.J. Sabornie (eds). *Handbook of Classroom Management*, (2nd edition) (pp. 301-321). New York: Routledge.
- McCaslin, M., Sotardi, V.A., Vega, R.I. (2015). Teacher support and students' self regulated learning: co-regulation and classroom management. In E.T. Emmer, & E.J. Sabornie (eds). *Handbook of Classroom Management*, (2nd edition) (pp. 322-343). New York: Routledge.
- Meehan, B. T., Hughes, J. N., & Cavell, T. A. (2003). Teacher-student relationships as compensatory resources for aggressive children. *Child Development*, 74(4), 1145-1157.
- Merritt, E. G., Wanless, S. B., Rimm-Kaufman, S. E., Cameron, C., & Peugh, J. L. (2012). The contribution of teachers' emotional support to children's social behaviors and self-regulatory skills in first grade. *School Psychology Review*, 41(2), 141-159.
- Mitsopoulou, E., & Giovazolias, T. (2015). Personality traits, empathy and bullying behavior: A meta-analytic approach. *Aggression and Violent Behavior*, 21, 61-72.
- Mojša-Kaja, J., Golonka, K., & Marek, T. (2015). Job burnout and engagement among teachers - worklife areas and personality traits as predictors of relationships with work. *International Journal of Occupational Medicine and Environmental Health*, 28(1), 102-119.
- Murray, C., & Greenberg, M. T. (2001). Relationships with teachers and bonds with school: Social emotional adjustment correlates for children with and without disabilities. *Psychology in the Schools*, 38, 25–41.
- Oldenburg, B., van Duijn, M., Sentse, M., Huitsing, G., van der Ploeg, R., Salmivalli, C., & Veenstra, R. (2015). Teacher characteristics and peer victimization in elementary schools: A classroom-level perspective. *Journal of Abnormal Child Psychology*, 43(1), 33-44.
- Orpinas, P., Horne, A.M., & The Multisite Violence Prevention Project. (2004). A teacher focused approach to prevent and reduce students' aggressive behavior: The GREAT teacher program. *American Journal of Preventive Medicine*, 26, 29–38.
- Orpinas, P., & Horne, A. M. (2006). *Bullying prevention: Creating a positive school climate and developing social competence*. Washington, D.C.: American Psychological Association.
- Papastilianou D., Kaila M., & Polychronopoulos, M. (2009). Teachers' Burnout, Depression, Role Conflict –Ambiguity. *Journal of Social Psychology of Education*, 12, 295-314.
- Pianta, R. (2001). *Student-Teacher Relationship Scale*. Odessa, FL: PAR, Inc.
- Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In S.L. Christenson, A. Reschly, & S. Wylie (Eds.), *Handbook of research on student engagement* (pp. 365-386). New York, NY: Springer Science.
- Pozo-Muñoz, C., Reboloso-Pacheco E., & Fernández-Ramírez, B. (2000). The 'ideal teacher' implications for student evaluation of teacher effectiveness. *Assessment and Evaluation in Higher Education*, 25(3), 253–263.
- Reeve, J., & Cheon, S. H. (2014). An intervention-based program of research on teachers' motivating styles. *Advances in Motivation and Achievement*, 18, 293-339.
- Reynolds, C. R., & Kamphaus, R. W. (2004). *Behavior assessment system for children (2nd ed.)*. Circle Pines, MN: American Guidance Services.
- Roorda, D. L., Koomen, H. M. Y., Spilt, J. L., & Oort, F. J. (2011). The influence of

- affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research*, 81(4), 493-529.
- Runhaar, P., Sanders, K., & Konermann, J. (2013). Teachers' work engagement: Considering interaction with pupils and human resources practices as job resources. *Journal of Applied Social Psychology*, 43(10), 2017-2030.
- Sanetti, L. M. H., & Kratochwill, T. R. (2011). An evaluation of the Treatment Integrity Planning Protocol and two schedules of treatment integrity self-report: Impact on implementation and report accuracy. *Journal of Educational and Psychological Consultation*, 21, 284-308.
- Schaufeli, W., & Bakker, A. (2003). *UWES Utrecht Work Engagement Scale. Preliminary Manual* [Version 1, November 2003]. Utrecht University: Occupational Health Psychology Unit.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. A cross-national study. *Educational and Psychological Measurement*, 66, 701-716.
- Schaufeli, W. B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress, and Coping*, 20(2), 177-196.
- Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. (2002). The measurement of burnout and engagement: A confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Shepherd, J., Pickett, K., Dewhurst, S., Byrne, J., Speller, V., Grace, M., . . . Roderick, P. (2016). Initial teacher training to promote health and well-being in schools - A systematic review of effectiveness, barriers and facilitators. *Health Education Journal*, 75(6), 721-735.
- Shoffner, M. (2009). The place of the personal: Exploring the affective domain through reflection in teacher preparation. *Teaching and Teacher Education* 25(6), 783-789.
- Simbula, S., Guglielmi, D., & Schaufeli, W. B. (2011). A three-wave study of job resources, self-efficacy, and work engagement among Italian schoolteachers. *European Journal of Work and Organizational Psychology*, 20(3), 285-304.
- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26, 1059-1069.
- Smylie, M. A. (1990). Teacher efficacy at work. In P. Reyes (Ed.), *Teachers and their Workplace* (pp. 48-66). London: Sage.
- Sudha, K. S., & Shahnawaz, M. G. (2013). Core self-evaluation as a correlate of subjective wellbeing among special educators. *Journal of the Indian Academy of Applied Psychology*, 39(1), 83-89.
- Swearer, S. M., Espelage, D. L., & Napolitano, S. A. (2009). *Bullying prevention and intervention: Realistic strategies for schools*. New York, NY: Guilford.
- Travers, C. J., & Cooper, C. L. (1996). *Teachers under Stress. Stress in the Teaching Profession*. London: Routledge.
- Tsaousis, I., Nikolaou, I., Serdaris, N., & Judge, T.A. (2007). Do the core self-evaluations moderate the relationship between subjective well-being and physical and psychological health? *Personality and Individual Differences*, 42, 1441-1452.
- van Bruekelen, G.J.P. (2006). ANCOVA versus change from baseline: More power in randomized studies, more bias in nonrandomized studies. *Journal of Clinical Epidemiology*, 59(12), 920-925.
- van der Zanden, P. J. A. C., Denessen, E. J. P. G., & Scholte, R. H. J. (2015). The effects of general interpersonal and bullying-specific teacher behaviors on pupils' bullying

- behaviors at school. *School Psychology International*, 36(5), 467-481.
- van Driel,, J.H., Beijaard, D., & Verloop, D. (2001). Professional development and reform in science education: The role of teachers' practical knowledge. *Journal of Research in Science Teaching*, 38(2), 137-158.
- Valiente, C., Lemery-Chalfant, K., Swanson, J., & Reiser, M. (2008). Prediction of children's academic competence from their effortful control, relationships, and classroom participation. *Journal of Educational Psychology*, 100, 67-77.
- Webster-Stratton, C., & Reid, M. J. (2002). *The Incredible Years classroom management teacher training program: Content, methods, and process*. Retrieved from. <http://www.son.washington.edu/centers/parenting-clinic/opendocs/teachertrainingprogram.pdf>
- Webster-Stratton, C., Reid, M.J., & Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: evaluation of the Incredible Years Teacher and Child Training Programs in high-risk schools. *Journal of Child Psychology & Psychiatry*, 49(5), 471-488.
- Wubbels, T., Brekelmans, M., den Brok, P., Wijsman, L., Mainhard, T., van Tartwijk, J. (2015). Teacher-student relationships and classroom management. In E.T. Emmer, & E.J. Sabornie (eds). *Handbook of Classroom Management* (2nd edition) (pp. 363-386). New York: Routledge.
- Yoon, J. (2002). Teacher characteristics as predictors of teacher-student relationships: Stress, negative affect, and self-efficacy. *Social Behavior and Personality: An International Journal*, 30(5), 485-493.
- Yoon, J. (2004). Predicting teachers' interventions in students' bullying. *Education and Treatment of Children*, 27, 37-45.
- Zee, M., de Jong, P. F., & Koomen, H. M. Y. (2017). From externalizing student behavior to student-specific teacher self-efficacy: The role of teacher-perceived conflict and closeness in the student-teacher relationship. *Contemporary Educational Psychology*, 51, 37-50.