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TEACHERS' SELF-EFFICACY, PERCEIVED ADMINISTRATIVE SUPPORT AND POSITIVE ATTITUDE TOWARD STUDENTS: THEIR EFFECT ON COPING WITH JOB-RELATED STRESS

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Abstract: This study aimed at investigating the impact of teachers' self-efficacy, perceptions of administrative support and positive attitude toward students on coping with job-related stress. A sample of 100 in-service primary and pre-primary state-school teachers from the urban region of Patras filled out four short measures on teachers' self-efficacy, perceived administrative support, positive attitude toward students, and coping with job-related stress. Results indicated statistically significant correlations of teachers' self-efficacy, perceived administrative support, and positive attitude toward students with coping with job-related stress. However, only teachers' self-efficacy and positive attitude toward students predicted coping with job-related stress. The findings underscore the importance of the person as compared to institutional factors in the development of coping with job-related stress.

Key words: Coping with job-related stress, Perceived administrative support, Positive attitude toward students, Self-efficacy, Teachers' job-related stress

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INTRODUCTION

The teaching profession has been described as one of the most stressful careers (Kamtsios & Lolis, 2016; Kamtsios, 2018; Kyriacou, 2001; Mearns & Cain, 2003; Vassilopoulos, 2012). Teacher stress is the outcome of negative affective situations caused by various aspects of the teaching profession and is considered a threat to teachers' wellbeing (e.g., Daniilidou & Platsidou, 2018; Kamtsios & Lolis, 2016; Kamtsios, 2018; Kyriacou & Sutcliffe, 1978). Stress may result in increased anxiety, depression, burnout and/or psychophysiological symptoms (Austin, Shah, & Muncer, 2005; Kamtsios & Lolis, 2016; Kamtsios, 2018). Research has examined various factors associated with teacher stress, such as students' behavior (Antoniou, Ploumpi, & Dalla, 2013; Kyriacou, 2001). On the other hand, coping is associated with cognitive and behavioral strategies that enable stressed persons to control environmental demands (Mearns & Cain, 2003).

Growing evidence has identified various factors that impact teachers' capacity to cope with job-related stress such as teachers' personal self-efficacy (e.g., Shen, 2009), their perceptions of administrative support (e.g., Kourmoussi & Alexopoulos, 2016) and teachers' positive attitude toward students (e.g., Haydson, Leko, & Stevens, 2018). Although previous studies examined these teacher-related variables independently of each other (e.g., Collie, Shapka, & Perry, 2012; Shen, 2009; Verešová, & Malá, 2012), the present study aimed to investigate how these factors jointly predict teachers' coping with job-related stress.

Teacher self-efficacy and job-related stress

Teacher self-efficacy refers to teachers' beliefs about their capacity to undertake and design actions regarding the accomplishment of instructional tasks within a specific framework (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Research has shown the role of teachers' self-efficacy as a coping resource against job-related stress. Schwarzer and Hallum (2008) conducted a mediation analysis using data from Syrian and German teacher samples. They found that perceived teacher self-efficacy is a negative predictor of teachers' job-related stress, and job-related stress mediates the relationship between teachers' self-efficacy and burnout. Moreover, Verešová and Malá (2012) with a sample of Slovak teachers found that teachers' self-efficacy was positively associated with coping with teachers' job-related stress, though the association was described as weak to moderate in strength. In the same vein, Shen's (2009) study with Chinese primary and secondary school teachers showed that teachers' self-efficacy had a positive effect on the use of coping strategies (e.g., seeking

social support) for coping with job-related stress. Further, Shen (2009), based on previous research, argued that self-efficacy and social support are the most important personal resources that positively affect coping with stress.

Perceived administrative support and teachers' job-related stress

Administrative support in educational contexts is conceptualized as the promotion of teachers' interests with verbal statements, offering steadfastness and clarity of roles as well as motivating teachers with rewards (Arends, 1982). Additionally, administrative support has been defined as the schools' capacity to assist teachers with context-related issues such as students' misbehavior, curriculum planning, etc. (Borman & Dowling, 2008; Tickle, Chang, & Kim, 2011). Perceived administrative support has been described either as a major source of teacher stress (e.g., Kyriacou, 2001) or as a coping resource (e.g., Kourmoussi & Alexopoulos, 2016). Russell, Altmaier, and van Velzen (1987) found that American teachers who had higher support from their superiors and received positive feedback for their work displayed lower levels of job-related stress and burnout. Research in Greece, drawing upon samples of primary and secondary school teachers, showed that perceived support from superiors had a significant preventive role against teachers' job-related stress (Kourmoussi & Alexopoulos, 2016). On the other hand, Brenner, Sörbom, and Wallius (1985) tried to establish social support from colleagues and administrators as a factor that facilitates coping with job-related stress, but their model, which included short-term and adaptive coping, was not confirmed. They argued that support from the social environment (colleagues and administration) is not a predictor of coping with job-related stress. Further, it is argued (see Vassilopoulos, 2012) that research in Greece has shown that social support and support received by the work environment are not associated with psychological wellbeing.

Positive attitude toward students and teachers' job-related stress

Teachers' perceptions of students' negative behaviors have been found to impact teachers' stress and wellbeing (Spilt, Koomen, & Thijs, 2011). Indeed, problems related to students' misbehaviors predict aspects of teachers' burnout (Kamtsios, 2018). Collie, Shapka, and Perry (2012) assessed various school climate variables, including teachers' perceptions of students' behavior and their effect on teachers' stress in a sample of elementary and secondary education Canadian teachers. Teachers who perceived their students as well-behaved and with high motivation reported lower levels of stress related to students' behavior. Further, the qualitative

study by Haydson et al. (2018), based on a sample of special education teachers from elementary, middle and high schools, showed that positive attitude toward students and positive perceptions of students' academic progress were protective factors against teacher stress; that is, acted as coping resources.

The present study

As can be seen from the presented studies (e.g., Shen, 2009; Verešová & Malá, 2012), teachers' self-efficacy is not in the center of their interest. Other studies (e.g., Schwarzer & Hallum, 2008) have focused solely on mediation effects and the impact of teachers' self-efficacy on teachers' stress and burnout. Prior research (e.g., Kourmousi & Alexopoulos, 2016; Russell et al., 1987) have established administrative support as a predictor of teachers' job-related stress. However, those studies have not taken into consideration personal variables such as teachers' self-efficacy and teachers' perceptions of their students. Further, the positive attitude toward students has been embedded within models (e.g., Collie et al., 2012) that sought to determine whether perceived students' behavior, as a school climate variable, influences teachers' stress experiences. Although another study that pertains to positive attitude toward students is that of Haydson et al. (2018), they have followed a qualitative paradigm, instead of a quantitative one. Overall, the present study is the first, to our knowledge, in the Greek context to take into consideration these variables as coping resources against teachers' job-related stress. Therefore, the following research questions and hypotheses were formulated:

RQ1: How are positive attitude toward students, teachers' sense of self-efficacy, and perceived administrative support associated with coping with job-related stress?

RQ2: Are positive attitude toward students, teachers' sense of self-efficacy, and perceived administrative significant predictors of coping with job-related stress?

Hypotheses

For RQ1, we hypothesized that positive attitude toward students, teachers' sense of self-efficacy, and perceived administrative support would be positively associated with coping with job-related stress (Hypothesis 1). Further, based on previous research findings, for RQ2 we hypothesized that all three explanatory variables (i.e., perceived administrative support, positive attitude toward students and teachers' sense of self-efficacy) would predict coping with teachers' job-related stress (Hypothesis 2).

METHOD

Participants

A convenience sample of 100 public kindergarten and primary school teachers was drawn based on a list of schools in the urban area of the city of Patras. Twenty-one of those (21%) were male and 79 were female (79%). Their age ranged from 25 to 50 years, $M = 44.26$; $SD = 10.75$. Teaching experience ranged from 1 to 35 years ($M = 17.9$; $SD = 9.4$). Thirty-three of the participants had a master's degree (33%). Eighty-three teachers (83.2%) taught in state primary schools and 17 (16.8%) were serving in state pre-primary schools. Most teachers taught only in mainstream classrooms (78%), whereas 14% were principals, and 8% were serving in special education classrooms. Further, 5% of the teachers had between 5 to 10 students in the classroom, 28% had between 11 to 15 students, 34% had between 16 to 20 students and 33% had between 21-26 students.

Pilot study

A pilot study was conducted to evaluate the comprehensibility of the translated questionnaires and the appropriateness of wording. The pilot study sample comprised 30 teachers (male: $n = 8$; female: $n = 22$). They came from Patras. The mean age of participants was 43.03 years ($SD = 9.46$), with an average of 17 years of teaching experience. Most teachers in the pilot study were primary school educators ($n = 25$); the rest of the sample were pre-primary school educators ($n = 5$). The distribution of positions held was as follows: principals ($n = 8$), mainstream educators ($n = 20$) and two were special educators.

Measures

Coping with teachers' job-related stress

The scale comprises six items that describe feelings of depression and negative manifestations of teacher stress such as psychophysiological symptoms. It essentially measures how well teachers cope with job-related stress. The items were adopted from Seidman and Zager (1987). The scale was translated by the author following the direct and backward translation process. In the pilot study, the wording of the items was discussed with teachers with many years of teaching experience. The scale was selected due to its relatedness to burnout, which is the next step after severe stress (Kamtsios & Lolis, 2016; Kamtsios, 2018; Schwarzer & Hallum, 2008). Responses were on a Likert-type scale ranging from 1: "Totally disagree" to 6: "Totally agree";

the items were reverse scored so that higher scores indicate better coping. High reliability and internal consistency were found, $\omega_T = .91$; $\alpha = .84$. Further, the data were subjected to confirmatory factor analysis with the specification of one factor (see Table 1). The model fit was acceptable (see Hu & Bentler, 1999) with $\chi^2(n = 100) = 26.7$, $p > .05$, TLI = .98, CFI = .99, RMSEA = .06 with 90% CI [.00, .13] and SRMR = .07. Construct reliability was established by Raykov's (1997) rho (i.e., $\rho = .84$). Rho values above .7 are considered acceptable (see Hair, Black, Babin, & Anderson, 2014).

Table 1. Confirmatory factor analysis of "Coping with Job-Related Stress" scale

Items	Factor Loadings (λ_s)
1. I feel depressed because of my teaching experiences.	.611 (.074)
2. The teaching day seems to drag on and on.	.616 (.078)
3. My physical illnesses may be related to the stress in this job.	.735 (.059)
4. I find it difficult to calm down after a day of teaching.	.655 (.071)
5. I feel I could do a much better job with teaching if only the problems confronting me were not so great.	.673 (.064)
6. The stresses in this job are more than I can bear.	.821 (.042)

Note: Standard errors are in parentheses.

Perceived administrative support

This scale consists of six items that reflect teachers' perceptions of administrative support (see Table 2). The scale was also adopted from Seidman and Zager (1987). The scale was translated by the author following the direct and backward translation process. Responses were on a Likert-type scale with values ranging from 1: "Totally disagree" to 6: "Totally agree". High reliability was found, $\omega_T = .84$; $\alpha = .75$. The data were subjected to confirmatory factor analysis with the specification of one factor. The model fit was acceptable, $\chi^2(N = 100) = 3$, $p > .05$, TLI = .99, CFI = .99, RMSEA = .009 with 90% CI [.00, .13] and SRMR = .05. Construct reliability was established by Raykov's (1997) rho, $\rho = .76$.

Positive attitude toward students

The scale comprises four items that describe teachers' positive perceptions and attitudes toward their students. It was adopted from Seidman and Zager (1987) with one change to the wording of the first item to reflect a positive attitude toward students in the school (see Table 3). The scale was translated following the direct and backward translation process. In the pilot study, the wording of the items was discussed with teachers; concerns were raised in relation to the first item due to its

Table 2. Confirmatory factor analysis of “Perceived Administrative Support” scale

Items	Factor Loadings (λ_s)
1. I get adequate praise from my supervisors for a job well done.	.360 (.111)
2. I feel that administrators are willing to help me with classroom problems, should they arise.	.762 (.064)
3. I believe that my efforts in the classroom are unappreciated by the administrators. (-)	.756 (.084)
4. My supervisors give me more criticism than praise. (-)	.546 (.089)
5. I feel that administrators will not help me with classroom difficulties. (-)	.658 (.088)
6. The administration blames me for classroom problems. (-)	.386 (.114)

Note: (-) Items were reverse scored; Standard errors are in parentheses.

sensitive content. Specifically, based on the pilot study, the item “My students act like a bunch of animals” was changed to “My students do not have problems with self-control of their behavior”. Responses were on a Likert-type scale with values ranging from 1: “Totally disagree” to 6: “Totally agree”. The scale was reliable, $\omega_T = .80$; $\alpha = .72$. Confirmatory factor analysis showed acceptable model fit with the specification of one factor: $\chi^2(N = 100) = 2.45, p > .05, TLI = .94, CFI = .89, RMSEA = .12$ with 90% CI [.00, .31] and SRMR = .053. Construct reliability was established by Raykov’s (1997) rho, $\rho = .71$.

Table 3. Confirmatory factor analysis of “Positive Attitude toward Students” scale

Items	Factor Loadings (λ_s)
1. My students do not have problems with self-control of their behavior.	.495 (.095)
2. Most students come to school ready to learn.	.590 (.110)
3. Most of my students are decent people.	.723 (.078)
4. Students come to school with bad attitudes. (-)	.688 (.083)

Note: (-) Item was reverse scored; Standard errors are in parentheses.

Teachers’ sense of self-efficacy

Teachers’ Sense of Self-Efficacy (TSES) is the 12-item short form of the Teachers’ Sense of Self-Efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). It was validated in cross-cultural research (Klaasen et al., 2009) and with Greek teachers (Golia, Belias, & Koustelios, 2016). The scale has satisfactory psychometric properties and forms an acceptable measure of teachers’ self-efficacy in Greek (Golia et al., 2016). Three subscales were specified by the scale’s creators; namely, instructional strategies self-efficacy, student engagement self-efficacy, and classroom management self-

Table 4. Confirmatory factor analysis of “Teachers’ Sense of Self-Efficacy” scale

Items	Factor Loadings (λ s)		
	I	II	III
1. How much can you do to craft good questions for students?	.838 (.035)		
2. How much can you do to implement a variety of assessment strategies?	.755 (.052)		
3. How much can you do to provide an alternate explanation when students are confused?	.777 (.057)		
4. How much can you do to implement alternative strategies in your classroom?	.797 (.043)		
5. How much can you do to motivate students who show low interest in school work?		.910 (.027)	
6. How much can you do to get students to believe they can do well in school work?		.892 (.035)	
7. How much can you do to help students to value learning?		.902 (.029)	
8. How much can you do to assist families in helping their children do well in school?		.725 (.049)	
9. How much can you do to control disruptive behavior in the classroom?			.870 (.036)
10. How much can you do to get children to follow classroom rules?			.787 (.049)
11. How much can you do to calm a student who is disruptive or noisy?			.868 (.033)
12. How much can you do to establish a classroom management system with each group of students?			.817 (.044)
Interfactor Correlations (φ s)			
	I-II	I-III	III-II
	.86	.94	.91

Note: I: Self-Efficacy for Instructional Strategies; II: Self-Efficacy for Student Engagement; III: Self-Efficacy for Classroom Management; Standard Errors are in parentheses.

efficacy (see Table 4). According to Tschannen-Moran and Woolfolk Hoy (2001), a composite score of all subscales can be used to represent teachers’ sense of self-efficacy. Responses were on a Likert-type scale with values ranging from 1: “Nothing at all” to 9: “A great deal”. For the present study, TSES displayed high reliability, $\omega_T = .97$; $\alpha = .95$. Confirmatory factor analysis showed acceptable fit and construct reliability of the three-factor structure: $\chi^2(N = 100) = 133, p < .001, TLI = .95, CFI = .94, RMSEA = .07$ with 90% CI [0.04, 0.09] and SRMR = .05. Construct reliability

for the three factors was established by Raykov's (1997) rho. Instructional strategies self-efficacy, student engagement self-efficacy, and classroom management self-efficacy were all highly reliable constructs with $\rho = .86$, $\rho = .90$, and $\rho = .90$, respectively. The interfactor correlations (φ s) ranged from .86 to .94 without discriminant validity issues because the unit was not included in the 95% confidence intervals (see Anderson & Gerbing, 1988).

Procedure

All participants were approached before the beginning of their working hours outside the schools. According to the recommendations of the Declaration of Helsinki, all participants were informed about the aims of the study and assured that responses would be kept confidential and no identifying data would be published. Respondents were also informed about the required time to fill out the questionnaire (approximately 15 minutes). Principals were also included in the sample because they are obliged to offer at least six hours of teaching (Law No. 4547/18-Ministry of Education, 2018).

Statistical analyses

All the analyses were conducted with the statistical language and environment R (R Core Team, 2018). McDonald's coefficient omega was calculated for all scales in addition to Cronbach's alpha. All coefficients were calculated utilizing the *Psych* package (Revelle, 2018) and confirmatory factor analyses were carried out with the *Lavaan* package in R (Rosseel, 2012).

RESULTS

Descriptive statistics for all scales are presented in Table 5. Pearson's product-moment correlations among teachers' scores are presented in Table 6.

Table 5. Descriptive statistics for the scales

Variable	Mean	SD	Min	Max	Skewness	Kurtosis	SE
Coping with job-related stress	24.86	6.81	9	36	-.21	-.87	.68
Positive attitude toward students	13.59	2.21	7	20	.19	1.08	.22
Teachers' sense of self-efficacy	81.63	18.1	34	108	-.61	-.2	1.81
Perceived administrative support	23.32	3.97	11	31	-.52	-.02	.4

Table 6. Pearson's product-moment correlations

Variables	1	2	3	4
1. Coping with job-related stress	1			
2. Teachers' sense of self-efficacy	.51**	1		
3. Perceived administrative support	.26*	.12	1	
4. Positive attitude toward students	.34**	.19	.35**	1

Note: significant at *** $p < .001$; significant at * $p < .05$

As the correlation matrix (see Table 6) shows, Teachers' Sense of Self-Efficacy, Positive Attitude toward Students, and Perceived Administrative Support were positively correlated with Coping with Job-related Stress, $r = .51$, $p < .001$, $r = .26$, $p < .05$, and $r = .34$, $p < .001$, respectively.

To assess the predictive ability of the three variables, that is, Teachers' Sense of Self-Efficacy, Positive Attitude toward Students, and Perceived Administrative Support, on Coping with Teachers' Job-Related Stress, a hierarchical linear regression analysis was conducted. Several diagnostic criteria were calculated before the analysis. For all the variables no multicollinearity issues were diagnosed by the VIF criterion, $VIF < 2$. Cook's Distance had values below .06 for the outliers. Following Field, Miles, and Field's (2012) recommendations no data were removed from the analysis. Further, a Bonferroni analysis of the outliers showed no statistically significant values, $p > .05$. Diagnostic analyses were all conducted implementing the procedures of the package by Fox and Weisberg (2011).

In the hierarchical regression analysis Coping with Job-Related Stress was the dependent variable and the other three variables were the independent. The variables

Table 7. Hierarchical regression analysis with Teachers' Sense of Self-Efficacy, Positive Attitude towards Students, and Perceived Administrative support as predictors and Coping with Job-Related Stress as the criterion variable

Independent Variable	β	t	Multiple R	ΔR^2	F
Model 1					
Teachers' Sense of Self-Efficacy	.51	5.99**	.51	.226	35.89**
Model 2					
Teachers' Sense of Self-Efficacy	.46	5.54**	.57	.065	24.23**
Positive Attitude towards Students	.25	3.08**			
Model 3					
Teachers' Sense of Self-Efficacy	.45	5.47**	.58	.015	17.10**
Positive Attitude toward Students	.21	2.41*			
Perceived Administrative Support	.13	1.47			

Note: : significant at ** $p < .001$; significant at * $p < .05$.

were entered in successive models to test the differential effect of the three predictors (see Table 7). All the tested models were statistically significant. In the final model, except for Perceived Administrative Support, both Teachers' Sense of Self-Efficacy and Positive Attitude toward Students significantly predicted teachers' coping with job-related stress.

DISCUSSION

The first aim of the present study was to investigate the possible associations of teachers' sense of self-efficacy, positive attitude toward students, and perceived administrative support with coping with job-related stress. The correlations revealed statistically significant associations with coping. This finding is in accordance with previous studies (e.g., Collie et al., 2012; Russell et al., 1987; Verešová & Malá, 2012). The second aim of the study was to test the extent to which teachers' sense of self-efficacy, positive attitude toward students and perceived administrative support predict coping with job-related stress. The hierarchical linear regression analysis showed that perceived administrative support did not predict coping with job-related stress. On the contrary, positive attitude toward students and teachers' sense of self-efficacy were significant predictors of teachers' coping with job-related stress. Thus, Hypothesis 2 was partly confirmed. The finding that teachers' self-efficacy is a significant predictor of coping with stress is in line with previous studies (e.g., Schwarzer & Hallum, 2008; Shen, 2009; Verešová & Malá, 2012), which have shown that educators' personal self-efficacy is a major resource of coping with job-related stress. The nonsignificant contribution of perceived administrative support on coping with job-related stress is contrary to the findings of other research (e.g., Kourmoussi & Alexopoulos, 2016; Russell et al., 1987), which suggested that perceived support from administrators was a significant predictor for reduced job-related stress. On the other hand, the present finding confirmed this of Brenner et al. (1985) who suggested that perceived social support from superiors and colleagues is not a predictor of coping with job-related stress. Regarding the rest of the findings, this study showed the importance of teachers' positive attitudes toward their students for coping with job-related stress. This finding is linked with previous studies (e.g., Collie et al., 2012; Haydson et al., 2018), which found that keeping a positive attitude toward students is a catalyst against teacher stress (i.e., it is a coping resource).

Previous research has focused independently on stressful factors (e.g., Antoniou et al., 2013; Kyriacou, 2001) or on the relationship between teacher burnout, teachers' stress, and stressor variables (e.g., Platsidou & Agaliotis, 2008; Schwarzer & Hallum, 2008). The present study attempted to jointly examine the ability of these variables to

predict teachers' capacity to cope with job-related stress. Spilt et al. (2011) mentioned that teachers' perceptions of their students have received little interest in the literature with regards to teacher stress. This study highlighted the importance of teachers' perceptions of their students and their personal sense of self-efficacy as coping resources, instead of institutional factors (i.e., perceived administrative support).

To conclude, teachers' self-efficacy as a coping resource suggests the need for programs that enhance teachers' instructional and classroom management strategies that motivate engagement with students. Teachers' positive attitude toward students and the capacity to cope with job-related stress underscore the importance of student-teacher relationships in teachers' wellbeing and resilience. However, the present findings show that teacher stress is a multi-factorial phenomenon that requires further research on the interactions between the various factors, but also on the conditions that alleviate teachers' stress and/ or enhance their coping capabilities.

This study has limitations that should be noted. First and foremost, this study was cross-sectional with self-report measures. This constitutes a limitation due to the fact that the data were not observational and respondents might have opted for socially desirable response options. Further, the sample size was rather limited, because many teachers did not return the questionnaires. Finally, it is recommended that the present findings be replicated with structural equation modeling or cross-lagged panel designs in order to identify possible reciprocal relations over time.

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