

The Relationship Between Psychological Resilience, Teachers' Self-Efficacy and Attitudes Towards Teaching Profession: A Path Analysis

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Abstract

The purpose of this research was to examine the relationships between prospective teachers' psychological resilience, teacher self-efficacy beliefs, and their attitudes towards the teaching profession. In this respect, a hypothetical model showing the causal relationships between the variables was developed and tested with path analysis within the structural equation modelling. Data were collected online from 247 prospective teachers who studied at pedagogical formation programs at a university in Turkey using Teachers' Sense of Efficacy Scale, Brief Resilient Coping Scale, and Attitude Towards Teaching Profession Scale. The results revealed that there were positive and significant relationships between all of the research variables. The fit indices for the path analysis model showed that the model had a good fit with the data. Accordingly, the psychological resilience of prospective teachers directly affects their attitudes towards the teaching profession and self-efficacy beliefs. In addition, the psychological resilience of prospective teachers also indirectly and positively affects their attitudes towards the teaching profession through their self-efficacy beliefs. Based on the results, some recommendations were made.

Keywords: Prospective Teachers, Resilience, Self-Efficacy, Attitudes Towards Teaching Profession

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INTRODUCTION

In the Turkish Education System, the teaching profession has been defined as a profession consisting of three main competencies: general culture, field knowledge, and pedagogical formation (National Education Basic Act, 1973). The pedagogical formation, on the other hand, can be defined as a competence that covers the knowledge and skills of how the teacher should use general culture and field knowledge in order to ensure student learning. Entry to teaching as a profession of specialization has taken place in different ways periodically throughout the history of the Turkish education system. The opening of the first Darulmuallimin (The College for Teacher Training) in Istanbul on March 16, 1848 is defined as an important step in the acceptance of teaching as a profession in the history of Turkish education and is considered a milestone (Akyüz, 2005; Kavak et al., 2007). However, citing the need for teachers and the professional inadequacy of some of the Darulmuallimin graduates, Abdurrahman Sami Pasha, the minister of education, decided to appoint teachers from outside these schools, that is, from outside the profession, in 1860. This decision, which can be counted as the origin of today's situation and has started the practice of assigning teachers from outside, damaged the expertise of the teaching profession (Akyüz, 2006).

When the history of teacher training in Turkey is investigated, we understand that there are differences according to the education levels, and the teachers for each level are trained in different institutions and methods. For example, Primary Teachers' Schools, Village Institutes and Two-Year Education Institutes for classroom teachers; Three-Year Education Institutes for secondary school teachers; Higher Teacher Training Schools for high school teachers and finally Education Faculties, which were established by giving teacher training to universities, are the main institutions that come to mind when it comes to teacher training in the post-republic Turkish education history (Öztürk, 2008).

With the transition of teacher training to universities in 1982, the increasing need for teachers and the inability to prefer a planned approach led to the search for ways to enter the teaching profession for those outside the education faculty. In this sense, with the non-thesis master programs in 1998-99, professional teaching knowledge was started to be given to those outside the education faculty (Polat, 2013). In 2010, the non-thesis master programs were abolished by the Council of Higher Education (CHE) and a new process was started with the implementation of the "Pedagogical Formation Certificate Program" (Özoğlu, 2010).

After the CHE decided to leave the decision of the number of students to be accepted to pedagogical formation certificate programs to universities in 2015, these programs started to become one of the main areas in teacher employment (Gürol et al., 2018). This also caused an increasing number of teacher candidates waiting for the appointment by MoNE to teaching positions. On the other hand, it has also been discussed that pedagogical formation certificate programs do not pay attention to training qualified teachers (Azar, 2011). It is also highlighted that they have undermined the prestige of the teaching profession and made it attractive for many people from different fields who have employment concerns (Polat, 2013).

Finally, with the regulation made by the Board of Education at the Turkish Ministry of National Education in July 2020, it was decided that pedagogical formation certificate programs were no longer a requirement for entry to teaching (Talim ve Terbiye Kurulu [Board of Education, July 2020]). Instead, it was said that for those who will be appointed from outside the faculty of education "teaching professional knowledge non-thesis master's degree" would be required. However, on the grounds that there was no development in the opening of the aforementioned graduate programs in universities, an update was made in the decision in August 2021 and it was stated that pedagogical formation certificates would be accepted in teacher appointments again. With the new regulation, the way to become a teacher from outside the faculty of education was left open. In this respect, it is seen that teachers who enter the profession through both pedagogical formation and non-thesis master's education will continue to hold a significant share among the teaching staff. A study conducted in 2014 (Safran et al., 2014), revealed that more than half of the candidates who took KPSS in some fields and nearly half in some fields were from outside the faculty of education. Therefore, it would be

beneficial to uncover the attitudes of these candidates towards the teaching and the factors that determine these attitudes.

Attitude Towards the Teaching Profession

Attitude is one of the variables that shape both our perceptions and behaviours socially. It is expressed as a tendency obtained by inferring from the behaviour of the individual and has a preparatory effect for certain behaviour. Although attributed to the individual, it can also be stated that there is an attitude belonging to the group (Kağıtçıbaşı & Cemalcılar, 2014). In this respect, group-specific attitudes such as the attitudes of informatics teachers towards cyber security or the attitudes of school principals towards participation in decision making can be mentioned.

Positive or negative attitudes towards people, objects, ideas, or phenomena have a cognitive, affective, or behavioural basis. In other words, an attitude may be the result of our cognitive evaluation, or it may develop under the influence of our emotions and values, or as a result of our evaluation of our behaviours (Aronson et al., 2019). In this context, thought, emotion and behavioural tendencies are stated as three components of attitude and it is emphasized that attitude provides consistency between these three components (Kağıtçıbaşı & Cemalcılar, 2014). To give an example, someone with a positive attitude towards teaching profession (AtTP) may think that teaching is a socially accepted and valued profession, that the working conditions are comfortable, or that there are more employment opportunities. The same person may feel comfortable and happy when they teach people something. Similarly, this person, in harmony with this positive situation in the dimension of thought and emotion, may recommend the teaching profession to those around him and direct his children to choose teaching as a profession. As it can be seen, these examples of thoughts, emotions, and behaviours are both a result of the attitude and its component and cause. However, as Kağıtçıoğlu and Cemalcılar (2014) stated, the approach based on considering attitude only as a cognitive process or mental evaluations is becoming widespread. Accordingly, the first thing to look for in order to qualify a tendency as an attitude is mental evaluation.

Attitudes do not show a hereditary feature and are generally acquired through experience. For this reason, the attitude towards a profession is a feature that can be shaped during vocational education. Therefore, it is important for teacher training institutions and teacher educators to be aware of the factors that develop attitudes towards teaching. Attitudes are evaluative tendencies that shape our values, beliefs, senses, and behaviours and can be understood by looking at them (Albarracin et al., 2005).

Due to its nature, each profession has some unique features and conditions. The teaching profession also stands out as it is a people-oriented profession. However, it can have a different status and value from culture to culture and country to country. In fact, the teaching profession in Turkey may be preferred more by the candidates for reasons such as liking the teaching profession, its relatively more suitable working conditions, and the obligations brought by employment opportunities (Polat, 2014).

It is stated that the attitude towards the profession is one of the internal factors that determine the success in that profession (Gül & Erkol, 2015; Jain, 2007). Furthermore, the perception, attitudes and expectations of a person towards teaching, his perspective on the profession and the values of the profession are significant in choosing and maintaining the teaching as a job (Akbaba, 2002; Altinkurt et al., 2014, Sezgin et al., 2014). In Turkey, the attitudes towards teaching of prospective teachers studying at the faculty of education (Alkhateeb, 2013; Demirtaş et al., 2011; Terzi & Tezci, 2007, Polat, 2013) and pedagogical formation (Bal, 2017; Eraslan & Çakıcı, 2011; Gülşen & Seyrathlı, 2014; Şengül Bircan, 2019; Polat, 2013) or non-thesis master's programs (Başbay et al., 2009; Gürbüz & Kızıoğlu, 2007) have been examined by different studies. Some research results have shown that the attitudes of education faculty students and the students at non-thesis master program or pedagogical formation program (Bal, 2017; Eraslan & Çakıcı, 2011; Şengül Bircan, 2019; Polat, 2013) are more

positive. In this respect, it is difficult to express that there are consistent results in terms of the teacher training programs.

Considering the preparatory effect of attitude for certain behaviour and its mediating role between some organizational and individual variables and behaviours (Kağıtçıbaşı & Cemalcılar, 2014), the importance of teachers' or prospective teachers' positive AtTP in terms of positive behavioural outputs such as performance, work integration, commitment, innovation, and attendance becomes clearer. For this reason, it can be claimed that developing teacher candidates' and teachers' positive AtTP should be included in the primary objectives of the teacher training programs, and individual and organizational variables that explain the attitude towards the profession should be deeply investigated.

Psychological Resilience

Along with positive psychology (Seligman & Csikszentmihalyi, 2000) and positive organizational behaviour (Luthans, 2002a, 2002b) approaches, it has been widely acknowledged that it is necessary to investigate the positive characteristics of people in the field of behavioural and organizational sciences. The positive psychology approach provides new approaches and concepts to examine what resources and mechanisms people use to maintain their psychological and physical health under difficult conditions (Folkman & Moskowitz, 2003).

Psychological resilience (PR) can be described as a concept emerged as a result of this new approach in order to emphasize the positive features and strengths of these individuals. It is more a concept related to how an individual recovers from traumatic situations and stress (Murphy, 1987). This concept, which is also expressed as the power of self-recovery (Terzi, 2008), is mostly related to variables such as adaptability, competence and hope (Murphy, 1987). Luthans (2002b), further states that resilience can be described as a positive psychological capacity that enables people to return to their normal and healthy state by recovering in negative situations caused by a problem, uncertainty, conflict, mistake or increased responsibility. Therefore, the concept can be identified as an individual's ability to adapt positively in a time of high stress (Sinclair & Walltson, 2004). It may not always be possible to prevent the problems and stressful situations that people will encounter. However, helping them develop the ability to cope with and recover in such situations will make them stronger and more prepared (Terzi, 2008).

Studies have shown that the employees who can recover from difficulties and failures and move on have higher job satisfaction, organizational commitment, and job performance (Youssef & Luthans, 2007). Similarly, employees who can stand up psychologically and create the energy and determination to continue working despite difficulties and troubles are more effective in their jobs (Luthans et al., 2005). As can be understood from these explanations, resilience, which affects the cognitive and affective processes of the individual and has the power to shape organizational behaviours in a positive way, can be considered as a variable that will support the development of positive attitudes towards objects and phenomena.

In the literature, the relationships between the PR of teachers or teacher candidates and different variables have been examined. Accordingly, it has been revealed that PR is significantly correlated with happiness (Altuntaş & Genç, 2020; Ulukan, 2020), job satisfaction and burnout (Gönen, 2020), work engagement and teacher self-efficacy (Kavgacı & Çalık, 2017), and life satisfaction (Şahin, 2014).

Teacher Self-Efficacy

Rooted in Social Cognitive Theory, self-efficacy belief, which is another individual characteristic evaluated among positive psychology concepts, is one of the self-regulators individuals use to determine their own motivation and performance levels (Wood & Bandura, 1989). Studies showed that highly self-efficacious employees are more robust and optimistic in the face of negative

psychological situations (Luthans et al., 2007; Youssef, 2004). While resilience, which has a more limited scope than self-efficacy, reflects a reactive stance against negative situations, self-efficacy belief has a proactive meaning (Luthans, 2002b). Self-efficacy is related to one's belief that how well one can perform the actions necessary to cope with possible situations (Bandura, 1982). In other words, self-efficacy reflects the individual's belief in how much he or she has the knowledge, skills and competence necessary to accomplish a certain task. It is stated that positive features such as self-efficacy are variables that contribute to the psychological resilience of the individual (Polk, 1997).

Self-efficacy belief can be defined for specific fields, and in terms of teacher training and development teacher self-efficacy term is commonly used. Teacher self-efficacy (TSE) is described as teachers' belief in their ability to organize and perform the actions necessary to perform a certain teaching task (Tschannen-Moran et al., 1998). It is comprised of three dimensions. These are defined as (a) being able to involve the learner in the learning process (efficacy in student engagement), (b) using teaching strategies in the teaching process (efficacy in instructional practices), and (c) managing the classroom in a way that creates a positive learning climate (efficacy in classroom management) (Tschannen-Moran & Hoy, 2001). In the related literature, self-efficacy has been reported to be positively related to variables such as student academic adjustment and success (Caprara et al., 2006; Ross, 1992; Zee & Koomen, 2016), tendency to take risks and engage in innovative behaviours (Basim et al., 2008; Ghaith & Yaghi, 1997; Ross, 1994), job satisfaction and attitude towards work (Bono & Judge, 2003), job engagement (Kavgacı & Çalık, 2017; Llorens et al., 2007; Schaufeli & Salanova, 2007a, 2007b), and classroom management skills (Sağlam & Kavgacı, 2021). The studies conducted with teacher candidates have also revealed significant relationships between TSE and attitudes towards the teaching profession (Arastaman, 2013; Bakaç & Özen, 2017; Dadandi et al., 2016; Demirtaş et al., 2011).

Luthans (2002b) points out that the use of psychological capacities in the studies aiming to explain organizational behaviour will open new horizons for the field. In this context, it is stated that there may be some causal relationships between the variables of the present study. Studies in the literature confirm such relationships (Kim & Lay, 2017). The current literature proves that the AtTP can be predicted by variables such as resilience, resistance, self-efficacy, and self-confidence (Avey et al., 2011; Luthans, 2002a). For this reason, considering the feature of the attitude towards the profession to explain many positive organizational behaviours, it is thought that more studies, both quantitative and qualitative, should be conducted.

The literature review shows that research on identifying the relevance of the psychological capital of the candidates preparing to enter the profession in explaining their attitudes towards teaching is lacking. Therefore, the current study is believed to promise to add nuance to the accumulated knowledge and make significant contributions to the process of training candidates who will enter the teaching profession, especially from outside the faculty of education. In this context, the current research aimed to investigate the direct effects of pedagogical formation certificate program students' PR on their AtTP and its indirect effects through TSE. Based on the results obtained, it is thought that it will contribute positively to the shaping of the content and method of teacher training programs.

The Purpose of the Study

The purpose of this research is to examine the relationships between prospective teachers' PR, TSE, and their AtTP. In the context of this purpose, answers to the following questions will be sought throughout the research:

- 1) What is the level of participants' TSE, PR and AtTP?
- 2) Are there any significant relationships between the participants' TSE, PR and AtTP?
- 3) Does the PR of the participants affect their AtTP directly and indirectly through their TSE?

METHOD

Research Model

This study employed a cross-sectional survey design in which the relationships between pedagogical formation students' PR, TSE and AtTP are scrutinized. The hypothetical model in Figure 1 identifying the direct predictive powers of independent variables (teacher self-efficacy and psychological resilience) on the dependent variable (attitudes towards teaching profession) was developed and tested with path analysis within the structural equation modelling.

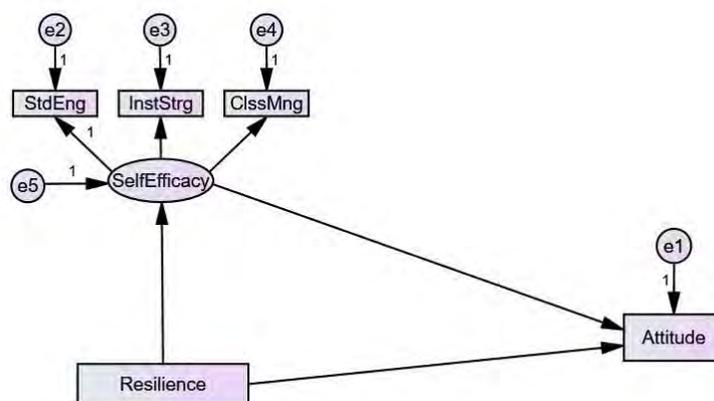


Figure 1. Hypothetical Model

Participants

Participants of the study were composed of 247 students enrolled in the distance pedagogical formation education program in Karabuk University in the 2016-2017 academic year. The average age was 29. Regarding gender, 28% of the participants were male while 72% were female. 37% of the participants had previous teaching experience.

Data Collection Tools

Data were collected through an online survey. Teachers' Sense of Efficacy Scale-Short Form (Tschannen-Moran & Hoy, 2001), Brief Resilient Coping Scale (Sinclair & Walltson, 2004) and Attitude Towards Teaching Profession Scale (Üstüner, 2006) were used to collect the research data. Permission to use for the scales was received from the scale developers via e-mail.

Table 1 Findings on the Reliability and Validity of the Scales

Scales	Item Numbers	Factors	Reliability	Validity
Teachers' Sense of Efficacy Scale-Short Form	12	3	KMO= .96 Barlett KT= $p < .01$ EV: %70 IFL: .69 - .90	C.Alpha=.96 ITC=.66 - .85
Brief Resilient Coping Scale	4	1	KMO= .80 Barlett KT= $p < .01$ EV: %67 IFL: .79 - .84	C.Alpha=.83 ITC =.62 - .69
Attitude Towards Teaching Profession Scale	34	1	KMO= .96 Barlett KT= $p < .01$ EV: %51 IFL: .50 - .85	C.Alpha=.97 ITC =.47 - .83

EV= Explained Variance, IFL=Item Factor Loading, ITC= Item Total Correlation

Teachers' Sense of Efficacy Scale-Short Form consists of 12 items and is scored in a nine-point Likert type ranging from 1 (unsatisfactory) to 9 (very sufficient). It contains three subscales: *Efficacy in Student Engagement* (4 items), *Efficacy in Instructional Practices* (4 items), and *Efficacy in Classroom Management* (4 items). The long form of the scale was adapted into Turkish by Çapa, Çakıroğlu, and Sarıkaya (2005), and the short form was confirmed by Kavgacı (2014). The factor loadings of the items varied between .69 and .90. While the internal consistency (Cronbach alpha) of each sub-scale ranged from .88 to .92., Cronbach alpha for the overall scale was .96.

Brief Resilient Coping Scale comprises of four items rated on a five-point Likert scale. The scale was adapted into Turkish by Kavgacı (2014). The four items in the scale explained 67% of the total variance. The factor loadings of the items ranged from .79 to .84. Cronbach alpha coefficient of the scale was .83, and the item-total correlations ranged between .62 and .69.

Attitude Towards Teaching Profession Scale contains 34 items collected under a single dimension. The participants responded to these items on a five-point Likert scale ranging from 1 ("almost never") to 5 ("almost always"). According to the EFA result, all items were gathered under a single dimension and explain 51% of the total variance. The factor loadings of the items varied between .50 and .85. Cronbach alpha was .97, and the item-total correlations ranged from .47 to .83.

Data Analysis

In the analysis of the data, first of all, the data were examined in terms of incorrect coding and missing data. No incorrect or missing data were found. In the data extraction process, in the data set or not, Mahalanobis distance values were calculated to find out whether there are extreme values. As a result of the analysis, 10 observations were excluded from the data set as they had extreme values at .001 significance level.

Although it is generally accepted that kurtosis and skewness values between +2 and -2 show normal distribution (Çokluk et al., 2012; Karagöz, 2019), studies (Field, 2009; Tabachnick & Fidell, 2007) revealed that the kurtosis and skewness limits should be larger especially for the samples larger than 200 for the assumption of normality. In structural equation modelling (SEM), multivariate normality is important and it is stated that if the skewness value is less than 3 and the kurtosis value is less than 10, the normal distribution assumption is met (Kline, 2011). On the other hand, according to the central limit theory, when the sample exceeds a certain size ($n \geq 30$), the distribution of the sample can be considered as normal regardless of the distribution of the population (Karagöz, 2019).

After removing the extreme values, it was seen that the skewness and kurtosis values ranged respectively between -1.309 and -.832, and between 2.452 and .073 as a result of the analysis of the data set comprised of 237 observations. The multivariate kurtosis critical value (multivariate c.r.) calculated for the multivariate normality assumption was found to be 7.523. Accordingly, the research data has an acceptable normal distribution (Kline, 2011).

In order to determine the level of the participants' perceptions of the research variables, descriptive statistics for the variables (the highest and lowest values, mean, standard deviation) were calculated. The existence of significant relationships between the research variables was examined by calculating the Pearson Product Moments Correlation Coefficients (r).

In the research, whether PR affects the AtTP directly and indirectly through the TSE was tested by path analysis within the structural equation modelling (see *Figure 1* for the hypothetical model). Path analysis is employed to test the existence of causal relationships between three or more variables (Fraenkel & Wallen, 2009). As model fit indices, chi-square/degree of freedom (χ^2/df), RMSEA, CFI, GFI, AGFI and NFI were taken as reference. In the analysis of the significance of the mediation effect, the bootstrap 1000 random samples method was used. It is stated that the RMSEA of smaller than 0.08, the CFI, NFI, GFI and AGFI of larger than 0.90 (Hu & Bentler, 1999, Karagöz,

2019), and χ^2/df of smaller than 3 (Sümer, 2000) indicate evidence of an acceptable fit. SPSS 21 and AMOS 23 programs were used in the analysis of the data.

FINDINGS

In the study, firstly, descriptive statistics for dependent and independent variables were produced. The highest and lowest values, scale means and standard deviation values are given in Table 2.

Table 2 Descriptive statistics for research variables

Variables	Lowest	Highest	\bar{X}	SD
Attitude towards Teaching Profession	1,18	5,00	4,31	,57
Psychological Resilience	2,00	5,00	4,37	,61
Teacher Self-Efficacy	2,00	9,00	7,44	1,26
<i>Efficacy in Student Engagement</i>	2,00	9,00	7,49	1,30
<i>Efficacy in Instructional Practices</i>	2,00	9,00	7,59	1,31
<i>Efficacy in Classroom Management</i>	2,00	9,00	7,25	1,36

The findings presented in Table 2 show that the participants' TSE ($\bar{X}=7,44$), perceptions of PR ($\bar{X}=4,37$), and AtTP ($\bar{X}=4,31$) are high. In addition, it is seen that the most heterogeneous distribution for the variables belongs to the efficacy in classroom management ($SD=1.36$), and the most homogeneous distribution belongs to the AtTP ($SD=.57$).

The correlation coefficients calculated to investigate the relationships between the research variables are given in Table 3. As it is presented in Table 3, there are positive and significant relationships between all of the research variables. According to the findings, apart from the relationships between the total score of TSE and its sub-scales, the strongest correlation was between the total score of TSE and AtTP ($r=.54, p<.01$). Moreover, a strong correlation also exists between the efficacy in student engagement and the AtTP ($r=.54, p<.01$).

Table 3 Correlations between research variables

Variables	1	2	3	4	5
1. Attitude towards Teaching Profession	-				
2. Psychological Resilience	.44**	-			
3. Teacher Self-Efficacy	.52**	.54**	-		
4. Efficacy in Student Engagement	.54**	.52**	.95**	-	
5. Efficacy in Instructional Practices	.48**	.50**	.95**	.86**	-
6. Efficacy in Classroom Management	.47**	.51**	.95**	.85**	.86**

** $p<.01$

Analyses for causal relationships between research variables were tested with path analysis. Results are presented in Figure 2.

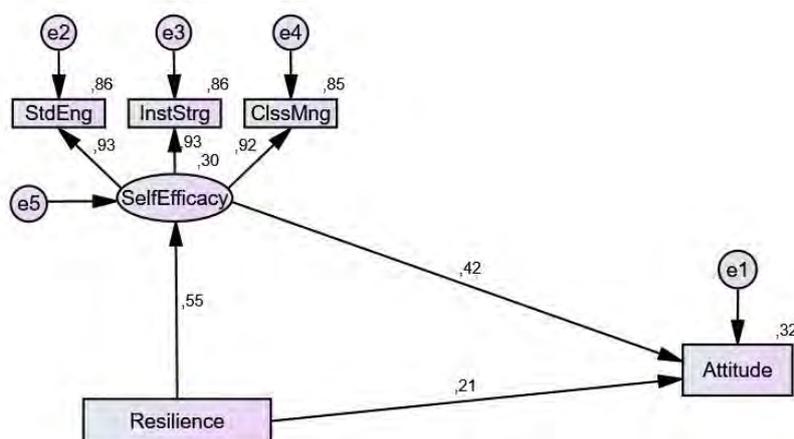


Figure 2. Path Analysis Results

The fit indices for the path analysis model presented in the figure above revealed that the model had a good fit with the data ($\chi^2/df=1.89$, $p>.01$; $RMSEA=.06$, $p>.01$; $CFI=.99$; $GFI=.99$; $AGFI=.95$; $NFI=.98$). Accordingly, the PR of prospective teachers directly affects their AtTP and TSE. In addition, the TSE also positively affects the AtTP. Finally, the PR of prospective teachers also indirectly and positively affects their AtTP through their TSE beliefs.

Table 4 Direct and indirect effects of psychological resilience and teacher self-efficacy belief on the attitude towards the teaching profession^a

Variables	Direct Effect	Indirect Effect	Total Effect
<i>Psychological resilience</i>	.21*	.23*	.44*
<i>Teacher self-efficacy</i>	.42*	-	.42*

a Standardized path coefficients

* $p < .01$

In the current study, the significance of the direct and indirect effects of exogenous variables on AtTP was analysed using the bootstrap method (Hayes, 2009; Preacher & Hayes, 2008) using the AMOS 23 program. In this way, the significance of the mediating role of TSE in the relationship between PR and AtTP was tested. The standardized regression coefficients for the direct and indirect effects and the results of the significance analysis obtained by the bootstrap method are given in Table 4.

As can be seen in Table 4, the PR's direct ($\beta=.21$, $p<.01$, %95 CI [.08, .33]) and indirect ($\beta=.23$, $p<.01$, %95 CI [.13, .35]) effect on the AtTP through TSE is significant. Accordingly, while the PR of pedagogical formation students affects their AtTP significantly and positively, it can also shape their TSE significantly in a positive way and determine their AtTP. In other words, the mediating role of TSE between pedagogical formation students' PR and their AtTP is significant. In addition, the indirect effect of PR on the AtTP is stronger than its direct effect. On the other hand, TSE also significantly and positively affects the AtTP ($\beta=.42$, $p<.01$, %95 CI [.25, .59]).

DISCUSSION AND CONCLUSION

The results of the study proved that the pedagogical formation program students, in other words, teacher candidates, have a high level of PR, TSE and AtTP in general. Similar studies related to the variables of this research revealed that PR, TSE and attitudes of teacher candidates who are studying in education and other faculties or who are in pedagogical formation program were positive and above the average (Bal, 2017; Eraslan & Çakıcı, 2011; Şengül Bircan, 2019; Polat, 2013; Tezci & Terzi, 2010). The high level of psychological resilience and self-efficacy, which are described as

psychological capital elements (Luthans et al., 2006), is a very important asset for teacher candidates. Teaching profession, due to its human relations-oriented nature, can rise the possibility of experiencing burnout at a higher rate, and as a result of this, the need for a strong psychological capital. Therefore, it can be stated that these two personal resources will support the candidates in the later stages of the profession.

The candidates' positive AtTP draws an optimistic picture in terms of their professional motivation and satisfaction when they start working. When it is accepted that attitude is not only a perceptual process but has reflections in the dimensions of emotion and behaviour (Kağıtçıbaşı & Cemalcılar, 2014), pre-service teachers with positive professional attitudes can be expected to start teaching with passion and enthusiasm. On the other hand, the attitude is not hereditary and the AtTP can be shaped during vocational training (Albarracín et al., 2005). Therefore, supporting this start with multidimensional professional development is important for prospective teachers to maintain a positive AtTP after starting the profession. Consistently, related literature highlighted that the perceptions, attitudes and expectations towards teaching, self-evaluations of teaching, the perspective on the profession and the values of the profession are decisive in prospective teachers' choosing and continuing the teaching profession (Akbaba, 2002; Altinkurt et al., 2014; Sezgin et al., 2014; Sinclair, 2008). AtTP have also a positive correlation with teaching effectiveness (Jain, 2007) and teachers' willingness to exhibit extra-role behaviours (Kara & Ada, 2021). Furthermore, positive AtTP positively affect the academic success of the prospective teachers during their teacher education (Alkhateeb, 2013; Parylo et al., 2015).

The results of the present study revealed that there were positive and significant relationships between research variables. These results are in line with the findings of previous studies indicating that there are significantly positive correlations between PR, TSE and attitudes towards teaching particular subjects and teaching profession in both Turkish (Arastaman, 2013; Bakaç & Özen, 2017; Dadandi et al., 2016; Demirtaş et al., 2011; Kanadlı, 2017; Yakar & Yelpaze, 2019) and international context (Fathi & Saedian, 2020; Razmjoo, 2019; Savolainen et al., 2012). At the same time, TSE were found out to have positive correlations with teachers' attitudes towards teaching particular subjects or groups such as students with special educational needs (Savolainen et al., 2012). Moreover, Donohoo (2018) stated that collective efficacy beliefs of teachers predicted positive feelings and attitudes towards their job, professional development and teaching students who need special education. Accordingly, any prospective teacher cannot be expected to have a positive AtTP if s/he doesn't see himself/herself as competent in teaching, and a prospective teacher who does not have a positive AtTP does not see herself/ himself as sufficient in teaching.

Path analysis carried out in the study showed that PR and TSE are among the important determinants of the AtTP. This suggests that PR affects the AtTP directly and indirectly through TSE in a positive way. It is noted that psychological capital constructs such as optimism, self-efficacy, hope, and resilience strengthen the organizational commitment of employees, contribute to their dedication to their work, develop positive attitudes towards their profession, and get a higher level of pleasure from their work (Avey et al., 2011; Larson & Luthans, 2006). Accordingly, psychological capital elements make a significant contribution to human and social capital in the workplace. Similarly, Avey, Luthans, Smith, and Palmer (2010) state that self-efficacy, optimism, hope and resilience, which they count as positive psychological resources for work, improve the emotional, mental and cognitive well-being of employees. A study examining the effects of self-efficacy resources and self-efficacy beliefs on prospective teachers' AtTP (Arslan, 2019) reveals that about a quarter of the attitude is predicted by TSE. Moreover, a study carried out with social workers (Djourova et al., 2020) emphasizes that while self-efficacy and resilience positively affect employees' well-being, they also mediate the effect of leadership on this well-being. Thus, it can be said that the well-being of individuals can positively affect the attitude towards the profession. It has also been found that teacher candidates' life satisfaction predicts their attitudes towards the profession positively (Recepoğlu, 2013) while their happiness levels are positively correlated to teachers' psychological resilience (Altuntaş & Genç, 2020; Ulukan, 2020). From this point of view, it can be said that psychology capital constructs are the elements that should be emphasized in order to positively

improve the professional development, well-being and general attitudes of individuals who have just entered or are preparing to enter the profession. The results of the current study also support this inference and point out that prospective teachers with strong psychological resilience and high self-efficacy develop positive attitudes towards teaching profession.

The findings of the current research also are in line with that of Fathi and Saedian (2020) who indicate that highly resilient teachers are less emotionally exhausted while they feel more satisfied with their job and feel more capable of sustaining effective interactions with others. On the other hand, a study conducted by Büyükşahin Çevik, Doğan and Yıldız (2016) found that there were significant and negative interactions between prospective teachers' burnout and resilience. Therefore, it can be predicted that highly resilient prospective teachers will experience burnout while performing their profession. This is a situation that can help their attitudes towards the profession to be more optimistic. These positive outcomes can be interpreted as significant predictors of positive AtTP.

The current study findings revealed that TSE outweighed PR as a predictor of AtTP. This finding can be attributed to the close relationship of self-efficacy with professional performance, effectiveness, job satisfaction, and work engagement (Bono & Judge, 2003; Caprara et al., 2006; Kavgacı & Çalık, 2017; Perera et al., 2019; Simbula et al., 2011; Zee & Koomen, 2016).

Plenty of studies have investigated the Turkish pre-service teachers' AtTP (Bal, 2017; Eraslan & Çakıcı, 2011; Gülşen & Seyratlı, 2014; Şengül Bircan, 2019; Polat, 2013; Yakar & Yelpaze, 2019) although some of them reported contradictory results. Moreover, in a longitudinal study (Tok, 2011) it was found that attitudes toward teaching changed significantly in a negative way at the end of teacher preparation program. A different study also revealed that there are significant differences between the attitudes of the students enrolled in different teacher training programs towards the profession and their self-efficacy perceptions (Yakar & Yelpaze, 2019). This highlights the importance of predictors of attitudes towards teaching profession. Teacher education programs also have a very significant objective, that is to understand prospective teachers' disposition toward teaching and help them develop a positive or favourable AtTP (Parylo et al., 2015; Schussler et al., 2010). However, Bümen and Ercan Özaydın (2013) stated that pre-service teacher training programs do not positively and significantly change or improve students' attitudes towards teaching profession in Turkey. Moreover, another study (Kanadlı & Karakuş, 2016) indicated that prospective teachers' TSE and AtTP changed negatively after completing the pedagogical formation certificate program. In that respect, in the framework of the current research findings it can be said that in order to strengthen the attitudes, the study presents a significant framework for the content and method of the teacher preparation programs.

Le Cornu (2009) emphasizes how important it is to build resilience in teacher candidates for the coming years of their profession, and provides important information on how to build this positive feature through learning communities in pre-service education. She points out that the prospective teachers' professional experience (practicum) and the learning communities where the prospective teachers share their teaching experience as a group strengthen the teacher candidates psychologically in coping with some cultural challenges of the profession. Moreover, Bümen and Özaydın (2013) state that teaching practice courses are important in developing self-efficacy as they provide direct and indirect experiences and allow verbal persuasion.

A study conducted on prospective teachers (Kim & Lay, 2017) showed that resilience affects the stress level during teaching practice directly and indirectly through teacher self-efficacy. Moreover, psychological resilience reduces the stress level during teaching practicum, especially through rising self-efficacy for classroom management. In addition, resilience significantly strengthens each sub-dimension of self-efficacy. It can be inferred that the lower stress experienced in teaching practicum will also shape the AtTP in a positive way. This supports the research finding on the effect of PR and TSE on the AtTP. The findings showed that PR had a positive effect on TSE, and PR strengthens the AtTP both directly and indirectly through its positive effect on self-efficacy.

An experimental study carried out on university students and professors (Minulescu, 2015) also includes findings that support the research results. According to the study results, professors' attitudes and their self-enhancing and affiliative humour aimed to strengthen students' ability to cope with stress and support their PR. Conversely, the students of professors who are pessimistic and cannot create positive energy are also pessimistic and more open to burnout. In this respect, it can be asserted that the behaviours of the faculty members that radiate energy to their environment and exemplify continuing on the road without being disappointed due to obstacles will also contribute to the TSE and PR of the teacher candidates. Thus, it is thought that they will develop a more positive AtTP.

RECOMMENDATIONS

Considering that candidates with more positive AtTP will be more effective in the teaching profession, it can be stated that all kinds of individual and organizational resources that can contribute to the development of these attitudes should be used in pre-service teacher training programs. In this respect, it is seen that all efforts to strengthen the TSE of pre-service teachers and improve their PR levels, in other words, their ability to cope with difficult situations that they may encounter throughout their professional life, are important and should be supported. Therefore, teacher training programs should accept enhancing the self-efficacy and resilience of prospective teachers as a mission, and define this as a key competence that should be gained by the candidates. Considering the importance of these variables, it is understood that more emphasis should be placed on teaching practicum, and positive and constructive feedback mechanisms should be operated. In addition, it would be appropriate for teacher educators to be informed about these psychological capital constructs, namely self-efficacy and resilience. Finally, it is thought that examining other personal variables that can predict the prospective teachers' AtTP will provide a significant contribution to the related literature.

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