



# CHEMNITZ UNIVERSITY OF TECHNOLOGY

**Emotional Intelligence and Positive Affect as Protective Factors against**

**Burnout in Syrian Teachers:**

**The Role of Emotional Intelligence on the Relationship with the Students**

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## 1 Introduction

Burnout is a prevalent severe phenomenon, which leads to various other problems, such as inadequate effort, as well as teachers developing the intention to quit teaching, and a lower quality of personal life (Schwab, Jackson & Schuler, 1986).

The teachers who have burnout are less committed to their professions and less satisfied with working with the students (Farber, 1984). They have an impersonal attitude toward their students (Beck & Gargiulo, 1983).

The school will also suffer from teacher burnout because of the increasing absenteeism of the teachers and their willingness to leave their work (Weisberg & Sagie, 1999).

All these issues create huge costs for the government. It is important to understand the processes of burnout and which variables could be considered as either a risk or as being a protective factor for burnout. This could help to protect the teachers from being at risk of burnout by initiating interventions or training programs.

Most previous studies ignore the mediation effect in the link between burnout and other variables. Therefore, in this project we focus on this element. This research consists of three studies, in which we examine the impact of emotional intelligence on student misconduct through attention to student needs in the first study, as well as the influence of proactive coping on the emotional intelligence-burnout relationship. In addition to this we test the role of supervisors' support in preventing burnout in the second study. In the third study we also investigate the role of job satisfaction on the association between either positive or negative affect and burnout.

## **2 Burnout**

The term burnout was first introduced in 1974 by Freudenberger. A person who works excessively for a long period of time and who is under great pressure from his work, particularly the needs of the individuals whom he should be taking care of, may eventually find these problems too much to cope with. He should, therefore, respond to them in a short time, or he will be at risk of burnout (Freudenberger, 1974).

### **2.1 Risk factors for burnout**

Previous researches denoted that the primary risk factors for burnout are individual and organizational factors. Individual factors did not only mean personal traits relating to that person but also those relating to the people who are entrusted with the responsibility of caring for them. For instance, van den Heuvel, de Witte, Schure, Sanderman and Meyboom-de Jong (2001) argued that the risk factors for burnout in carers of stroke patients include severe cognitive, behavioral and emotional changes of the patient (van den Heuvel, de Witte, Schure, Sanderman & Meyboom-de Jong, 2001).

The response of the person could also make burnout more likely to occur, for example, negative emotional reactions to challenging behavior contribute to two dimensions of burnout, namely emotional exhaustion and depersonalization (Rose, Horne, Rose & Hastings, 2004).

Together, stress and unrealized expectations play an important role in causing burnout, as illustrated in a study by Gustafson and Hassmen (2008), who reported that when looking at burnout in athletes, it can be seen that there is a very complex relationship between a whole variety of stress-producing elements. These include the level of personal expectations, physical wellbeing and frustration when goals are not achieved (Gustafson, Hassmen, Kenttä & Johansson, 2008).

However, a person entering the early stages of his work does not know how to deal with the relevant problems. This, in turn, makes him more likely to suffer from burnout. This is supported by the research of Webster and Hackett (1999), who demonstrated that lack of experience puts individuals at high risk of experiencing burnout (Webster & Hackett, 1999).

Low levels of social support coupled with high levels of stress at work make emotional exhaustion and reduced personal accomplishment more likely to appear (Parker & Kulik, 1995).

Burnout could also be considered as a result of work overload, and conflict between work and home (Prins, Gazendam-Donofrio, Tubben, van der Heijden, Van De Wiel & Hoeksra-Weebers, 2007).

A recent study by Skaalvik and Skaalvik (2010) indicated that time pressure and disciplinary problems could lead to emotional exhaustion, while disciplinary problem could also lead to depersonalization (Skaalvik & Skaalvik, 2010).

## **2.2 Protective factors against burnout**

The organization could protect the individuals who work for it against burnout, particularly by giving support to decreasing the degree of burnout (Kim, Lee & Kim, 2009) and by improving the social work environment (Schaufeli & Peters, 2000).

Various activities were suggested to protect against burnout, like those that enhance relationships, such as looking for mentors and taking part in retreats, in addition to activities like exercising regularly and scholarly reading (Doolittle, 2010).

The type of coping contributes to the protection against burnout. For instance, Leiter (1991) suggested that using control coping cognitions and actions tended to cause less emotional exhaustion and create more positive assessment on personal accomplishment, while escapist coping strategies led to teachers experiencing a higher level of emotional exhaustion (Leiter, 1991). Other ways of coping with wishful thinking diminished emotional exhaustion (Liakopoulou, Panaretaki, Papadakis, Katsika, Sarafidou, Laskari, Anastasopoulos, Vessalas, Bouhoutsou, Papaevangelou, Polychronopoulou & Haidas, 2008).

In longitudinal research carried out by Savicki and Gooley (1994), a sample taken of child protective service workers noted that feelings of personal accomplishment were increased by the workers being encouraged to make their own decisions and to be self-sufficient (Savicki & Gooley, 1994).

Another longitudinal study demonstrated that teachers with high self-efficacy are less likely to have burnout, despite high levels of job stress (Schwarzer & Schmitz, 2004).

### 2.3 Assessment of burnout

The Maslach Burnout Inventory (MBI) is a 22-item scale that was developed dependent on exploratory research that included interviews and questionnaires, in addition to various established scales which were reviewed for useful content material. The items reflect the feelings and attitudes of the person who looks after others. Each statement was rated on two separate dimensions, as in Hassles scales: frequency and intensity. The first version consisted of 47 items with a two-scale format, which was then reduced to 25 items. The final version has 22 items in order to test the three dimensions of burnout: emotional exhaustion, depersonalization and reduced personal accomplishment. Higher mean scores on emotional exhaustion or depersonalization reflect higher degrees of burnout, in contrast with reduced personal accomplishment (Maslach & Jackson, 1981).

The Copenhagen Burnout Inventory (CBI) has 19 items that are used to assess the three subscales of burnout, namely: personal burnout, work-related burnout and client-related burnout. All the subscales offer satisfactory internal reliability and validity. Personal burnout refers to “the degree of physical and psychological fatigue and exhaustion experienced by the person”. Work-related burnout means “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his or her work”. By using this scale it is possible to recognize who is tired and also attribute the fatigue to non-work factors, such as health problems or family demands. Client-related burnout is “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his or her work with clients” (Kristensen, Borritz, Villadsen, Christensen, 2005. p. 197).

The Staff Burnout Scale for Health Professionals (SBS-HP) consists of 30 items. Twenty of them are utilized in order to assess burnout, while the remaining 10 items form a lie scale. It assesses various cognitive, affective, behavioral and psychophysiological reactions, which comprise the burnout syndrome (Schaufeli, Enzmann & Girault, 1993).

The School Burnout Inventory scale was developed by Salmela-Aro and Näätänen (2005) on the basis of the Bergen Burnout Indicator 15 (BBI-15) relating to working life. It consists of 10 items used to measure the three factors of school burnout: exhaustion at school, cynicism towards the meaning of school and the sense of inadequacy at school. The analyses showed good validity and high reliability (Salmela-Aro, Kiuru, Leskinen & Nurmi, 2009).

## **2.4 Consequences of burnout**

The results of burnout burden not only the person who suffers from burnout but also other people who come into contact with them, as highlighted by the research of Klein, Frie, Blum and Knesebeck (2010), which revealed that burned out male surgeons are more likely to rate their quality of care as suboptimal and tend to report more therapeutic errors. (Klein, Frie, Blum & Knesebeck, 2010).

Most studies demonstrated that absenteeism is one of the most frequent consequences of burnout (Hallsten, Voss, Strak, Josephson & Vingard, 2011; Borritz, Rugulies, Christensen, Villadsen & Kristensen, 2006). Similarly, Swider and Zimmerman (2010) found that burnout can lead to absenteeism, staff turnover and low job performance (Swider & Zimmerman, 2010) and the research performed by Parker and Kulik (1995) reported that burnout can result in absenteeism, whereas emotional exhaustion can cause a decrease in job performance (Parker & Kulik, 1995).

Neveu (2007) suggested that reduced personal accomplishment is related to resource depletion, while emotional exhaustion is related to absenteeism and depression (Neveu, 2007). Emotional exhaustion and depersonalization had a negative impact on job satisfaction, while personal accomplishment had a positive effect on job satisfaction and a negative influence on absenteeism (Iverson, Olekalns & Erwin, 1998).

However, most of the researches investigated immediate effects of burnout. A longitudinal study by Cherniss (1992) indicated that subjects who were more burned out early in their jobs were less likely to change their occupation or become more flexible in their approach to work as rated by confidants later (Cherniss, 1992).

Another longitudinal study carried out by Burke, Greenglass and Schwarzer (1996) showed that the consequences of burnout include heart symptoms and a depressive mood (Burke, Greenglass & Schwarzer, 1996).

## **2.5 Prevention of burnout**

Many different approaches have been adopted to reduce the likelihood of burnout occurring, such as developing skills for preventive coping, using available social resources, and developing a relaxed work style. Taking steps to improve health, to analyze and understand one's own personality, needs and motivations, as well as increasing engagement with work by



creating a stronger relationship between the individual and his job (Maslach & Goldenberg, 1998).

Many strategies that could be used to reduce burnout were proposed by Hamann (1990): Not to work too much, exercising every day, practicing favorite relation exercises regularly, getting involved in outside activities and creating a balance between work and personal life (Hamann, 1990).

Organization could also help in preventing burnout by ensuring reduced role conflict and ambiguity, ensuring participation in decision-making, by increasing feedback and by encouragement of the development of a social support network (Jackson & Schuler, 1983).

The supervisors could reduce emotional exhaustion and depersonalization of employees by creating a positive working climate (Webster & Hackett, 1999).

Other methods to prevent burnout include identifying the sources of strain and the ways in which this strain can be faced. The supervisors can help the families to decrease the influence of such strain, depending on their professional abilities (Azar, 2000).

A suitable aim for the person makes him less likely to suffer from burnout. For instance, the need for achievement in a sample of undergraduate university students prevents each dimension of burnout: emotional exhaustion, cynicism and reduced efficacy (Moneta, 2011).

However, the aim should be achievable if burnout is to be reduced, as Berglas (2011) suggested when he asserted that one way of preventing burnout is not to set unachievable aims, by learning new skills and developing personal resources, participation in variety of projects and deciding which one is suitable (Berglas, 2011).

The discussion of risk factors, together with practice of relaxation techniques, exploration of coping patterns, and fostering positive self-care strategies proved to be a useful way of reducing stress and preventing burnout (Kravits, McAllister-Black, Grant & Kirk, 2010).

### **3 The situation of teachers in Syria**

Teachers have an important effect, not only in encouraging their students to achieve high levels of education, but also when playing an essential role in their social development.

The teachers should be creative in helping their students to improve themselves and to overcome their problems. They can notice the behavior of the students in the classroom directly and help those who have difficulties with learning, in collaboration with the supervisors at the schools (Abass, 2000).

Despite the abilities of the teachers to do just that, most schools do not have enough technical equipment, do not have enough journals and books, and they tend to change the curriculum frequently, thus making it more difficult for the teachers. The teachers only have a short training course to get to know everything about the new curriculum, which makes their task very complicated. The curriculum is too long and most of the teachers were not able to finish it in two semesters. The teachers are also constantly monitored by the schools, which leads them to suffer a lot of stress. However, teachers should occasionally teach other students, because the schools do not have enough teachers. Although they have at least twenty five contact hours every week, they still receive a low salary. Therefore, the teachers depend more on private lessons, which make them less likely to continue to work at schools (Al Sonbol, 2004).

The teachers work as a team, which helps them, but teachers do not accept criticism from their supervisors as the supervisors sometimes do not like the teachers or do not like working with them. Hence, the schools will also suffer from these problems (Michael, 2005).

### **4 General questions of the studies**

Most previous researches investigated the relationship between emotional intelligence and other variables regardless of the other factors that play a role in such a relationship on the one hand. On the other hand, the emotions at work, whether positive or negative, and their effects on outcome variables such as burnout through job satisfaction was not tested in the literature. Thus, these studies attempt to answer the following questions:

1. What is the effect of emotional intelligence on the behavior of the students?
2. Is the emotional intelligence promoting attention to student needs?
3. What is the role of proactive coping in the emotional intelligence-burnout relationship?
4. Is support from the supervisor protecting the teachers from experiencing burnout?
5. Do the positive or negative emotions at work influence job satisfaction and burnout?

## **5 General Hypotheses**

### **5.1 Emotional intelligence, attention to student needs and student misconduct**

Emotional intelligence enhances interaction with students. However, little attention has been given to whether emotional intelligence affects the behavior of the students and whether more attention to student needs would influence student behavior.

The aim of this research is to understand the relationship between emotional intelligence and the misconduct of the students. We assumed that teachers high in emotional intelligence reduce student misconduct by focusing more on their needs.

Emotional intelligence would be negatively associated with student misconduct, whereas a positive association would exist between emotional intelligence and attention to student needs. Attention to student needs would be linked to lower student misconduct.

### **5.2 Emotional intelligence, proactive coping, burnout and supervisor support**

Emotional intelligence could not only be considered as an important factor in the teacher-student relationship but also as a protective factor against burnout, like proactive coping, which makes teachers more resilient and less likely to suffer burn out. We are interested in finding the impact of proactive coping in the emotional intelligence–burnout relationship as well as whether the support from the supervisor would impact the association between emotional intelligence, proactive coping and burnout.

It was hypothesized that emotional intelligence would be associated with lower levels of burnout, and it would lead to higher proactive coping. A negative link would exist between proactive coping and burnout. The influence of emotional intelligence on burnout would be mediated by proactive coping and supervisor support would moderate the impact of emotional intelligence on burnout through proactive coping.

### **5.3 Positive and negative affect, job satisfaction and burnout**

As many previous studies have revealed, negative affect is a risk factor for burnout. In contrast with positive affect. Teachers who are satisfied with their jobs are motivated to work and are interesting in doing so. The influence of job satisfaction on the link between positive or negative affect and burnout has not been tested until now; therefore, we want to examine it.

It was expected that negative affect would be linked to a higher level of burnout and to a lower level of job satisfaction, whereas positive affect would reduce burnout and increase job satisfaction. Job satisfaction would be negatively related to burnout. The relationship between either negative or positive affect and burnout would be mediated by job satisfaction.

## **6 General Findings**

### **6.1 Emotional intelligence, attention to student needs and student misconduct**

Teachers high in emotional intelligence tend to be more caring of their students. They can better recognize student needs and they respond to these needs accordingly. They are also aware of their difficulties and their general emotions and they can promote them to make advances.

Emotional intelligence seems to be the key factor in understanding the students, regarding what motivates them, what they desire and how teachers can work better with them. The students notice this and endeavor to work hard, in order to achieve their academic goals. They are, therefore, less likely to behave unacceptably.

It seems that the more attention given by the teachers to the needs of their students, the less misconduct arises from their students.

Emotional intelligence contributes to creating lower levels of misconduct from the students directly and through attention to student needs, which acts as a mediator.

### **6.2 Emotional intelligence, proactive coping, burnout and supervisor support**

Previous studies reported that emotional intelligence protects individuals from being at risk of burnout, but it remains unclear as to the role of variables such as proactive coping in mediating such a relationship.

The results revealed that emotional intelligence fosters the abilities of the teachers to use proactive coping strategies when they experience stress. They can better understand themselves, as well as what they want to achieve and how, in order to use their resources, to come up with the solution to the problem.

The proactive teachers have high competency in making plans to face the stressful situation and they try to pursue their goals regardless of the difficulties. This renders them less vulnerable to the impact of burnout. Proactive coping enables the teachers to respond to potential stress and allows them to match the constant demands and experience less job burnout as a result.

Teachers who work in teams benefit in many ways, including higher levels of skill variety in their jobs, knowledge of students, general satisfaction, work group helpfulness and effectiveness, professional commitment, internal work motivation and teacher efficacy, more so than those who work alone( Pounder, 1999).

The informational support from the supervisors buffered emotional exhaustion, while emotional support functioned as a buffer from depersonalization (Greenglass, Fiksenbaum & Burke, 1996).

Our results revealed that the negative indirect impact of emotional intelligence on reduced personal accomplishment through proactive coping is larger for teachers when they have more support from their supervisors. We found lower negative effect of regulation of emotion on emotional exhaustion through proactive coping for teachers who receive more support from their supervisors. The negative effect of regulation of emotion on depersonalization through proactive coping was stronger for teachers receiving more support from their supervisors.

### **6.3 Positive or negative affect, job satisfaction and burnout**

The experience of negative affect appears to be a contributor to the development of burnout in contrast with positive affect.

Teachers with high positive affect at their work tend to find their jobs more enjoyable and are therefore more satisfied with their careers compared with teachers with high negative affect. However, teachers boasting a high level of job satisfaction are less likely to have burnout than those who have low a level of job satisfaction, despite having high levels of stress.

The results showed that job satisfaction mediated the impact of positive or negative affect on burnout.

#### **6.4 The ideas for improving the situation of the teachers**

Teachers' emotional intelligence has an influence on the behavior of the students through their taking into account of the needs of their students. It might be important to share in collective activities at the school, in order to enhance teachers' emotional intelligence by concentrating on having greater interaction with the students and learning more about them and how they can help them to accomplish their aims. The team at the school might help the teachers regarding their problems with the curriculum by using and developing various methods and strategies to teach the students in a more convenient way.

The supervisors have an impact on the teachers' abilities to cope with demands and leave them less likely to break down from reduced personal accomplishment. They need to be certain that they are interested in working together as they will benefit from this. The supervisors should take more care concerning the teachers, rather than monitoring or criticizing them.

Some of the supervisors might not understand their role. They are not responsible for how the teachers could or should face the stressful situation. They can help the teachers by giving them more information, by explaining the roles in the teaching system and by reassuring them that they can deal with their problems by themselves. Within the Syrian culture it is not acceptable for a teacher to tell a supervisor that he does not like working with him or that he would prefer to work with somebody else.

The director of the school also selects the team, which sometimes does not work as it should. It might be useful for the teachers to express their emotions and clarify that they would like to change the team and that perhaps they would be more satisfied in another team and not simply that they do not like the supervisor as a person. The supervisors should try to work with the teachers in order to have a positive influence on their personalities and especially on their emotional intelligence by developing the competences of the teachers in acquiring new skills to manage their emotions.

The teachers work in difficult circumstances and this requires a variety of different emotions in order to cope with such stressful conditions. It would be useful to know why the teachers have a lot of stress and why they can not work successfully. It might be that the teachers are

not able to find a balance between their work and their personal problems or that they are not satisfied with their jobs and are experiencing burnout. The schools should remember that the teachers are unwilling to teach more students than they should or work overly extensively. This leads to the teachers enduring negative emotions and becoming less satisfied with their jobs. Thus, they would suffer from burnout. Therefore, the schools should request more teachers if they have a lack of staff.

## **7 General Discussion**

Emotional intelligence helps the teachers to learn more about their students, which enables them to be more sensitive to their needs. The teachers with high emotional intelligence may understand their students better, which is what they want and what they prefer. They can also notice the difficulties of their students and guide them to transcend their difficulties.

Ghanizadeh Moafian (2009) pointed out that teachers with high emotional intelligence were more successful in teaching their students (Ghanizadeh & Moafian, 2009).

This progresses the relationship by narrowing the gap between the teachers and their students, and the students will be under the impression that the teachers are not only interested in giving new information to them but also that they are interested in them personally and care about them.

When the needs of the students are gratified, they are driven to be more motivated and show competence to attain their aims. Therefore, they would be less likely to behave in a negative manner. While the feeling of being ignored by the teachers may be expressed as some form of negative behavior from the students, the misbehavior of the students could be seen as seeking further attention from the teachers, who did not provide enough in the first place. Emotional intelligence could also be considered as a protective factor against burnout by enhancing the capacities of the teachers to cope proactively.

The teachers with high emotional intelligence are more able to manage and regulate their emotions as well as being more capable of determining their goals and the ways in which to obtain them. The proactive teachers take steps to handle the potential problems before they happen and recognize them as chances for development. This gives a sense of better adjustment and allows greater perceived control over their problems. Although they have high

levels of stress, they are confident in dealing with it by means of adaptive actions and this protects them from being impaired by burnout.

The teachers with high proactive coping may be more likely to engage in activities to alleviate the pressures and this can contribute to higher feelings of professional competence. If the teachers can continue attempts at resistance, they can increase the effectiveness of their resources and may not succumb to burnout. The teachers with high emotional intelligence who received support from their supervisors cope more proactively with demands and are less likely to suffer from reduced personal accomplishment.

It might be the case that the supervisors promote the emotional intelligence of the teachers by giving advice, assistance and information. This helps the teachers to find the solutions to their problems to cope with stress.

The impact of regulation of emotion on emotional exhaustion through proactive coping unexpectedly became lower for the teachers who had received more support from their supervisors. It might be that the teachers did not perceive this support correctly or that they failed to manage stressful situations properly.

The influence of regulation of emotion on depersonalization through proactive coping was stronger when the teachers got more support from their supervisors. The supervisors might help the teachers to think more positively, in order to find the adequate response to the stress but this does not keep them from experiencing depersonalization.

The degree to which teachers emotionally respond to stressful events and how satisfied they are as a consequence, as well as how they cope with stress, has a strong influence on the level of burnout they experience. The level of support that the teachers receive from family and colleagues was also shown to be important in dealing with stressful situations (Montgomery & Rupp, 2005).

Judgments made by teachers regarding the behavior of their students and other teaching tasks contributed also to the experiencing of unpleasant emotions, which in turn led to burnout (Chang, 2009).

Emotions at work have an influence on the process of burnout. We found in our data that the teachers who have positive emotions might have the desire to continue to work and they find their careers meaningful. All this leaves them more satisfied with their jobs and becoming less



likely to experience burnout. While the negative emotions divert attention from their work and lowered job satisfaction, leading to increased levels of burnout.

## **8 Limitations and implications for future research**

We did not test other personal resources within the relationship between emotional intelligence and burnout or between either positive or negative effect and burnout. We also did not know about the consequences of burnout. Hence, future studies should examine these issues. We did not know whether the teachers have other problems outside work, which could be contributing to the experience of burnout. Thus, any future study should determine what kinds of problems the teachers have.

We used an adapted version of the PANAS scale to test positive and negative affect of the work on the teachers, which refers to the emotions and the feelings that the teachers had experienced during the previous year. This was difficult for the teachers to recall. Future study should require testing of the positive and negative affect at the relevant moment.

The quality of the relationship between the teachers and the director of the school was not tested during our studies. This knowledge might be helpful for future research, in order to understand more as to the process of burnout.

We were unaware of whether the teachers suffered from any other kind of psychological disorders, such as depression, which makes the teachers more likely to experience burnout. Future study should aim to test this.

We did not know whether more attention to the students would trigger a reduction in behavior misconduct in the students or if other factors would contribute to change in the behavior of the students. It could be that some students who had problems asked the psychologist counselors at school for help and their behavior was changed not simply because the teachers gave the students more attention. In order to ascertain this, longitudinal study is required. The findings revealed that the teachers with high emotional intelligence influenced the behavior of their students, who would be less likely to display misconduct. Emotional intelligence was found to be a protective factor against burnout and it made the teachers cope more proactively with stress. It remains unclear as to whether student misconduct could contribute to burnout. Future research should examine the psychological mechanisms that link student misconduct with the onset of burnout.

The assessment of burnout was limited to one time at the beginning of the first semester. Future research should monitor the development of burnout over a longer period of time. In our data we did not ask about the salary of the teachers, which might also have an impact on job satisfaction. Therefore, more studies are needed to explain this relationship. Some teachers should be asked to teach other students when there is a lack of staff, and they may have more stress than other teachers. We did not inquire about this in our studies, but this might have a role to play in the relationship with burnout. Further work should address whether the teachers should teach other students. The teachers were not asked whether they gave private lessons to other students at home. This could lead them to becoming less interested in teaching at school and mean that they make less effort, resulting in not enough concern being shown for their students.

Some teachers might suffer from illness, not because of burnout, but for another physical reason. This reduces the abilities of the teachers to perform well. Unfortunately, the question of whether or not the teachers have such a problem was not asked in these researches.

The students were of various ages but it was unknown whether the teachers in secondary schools were different from those in high schools and there was also no information about the number of students in each classroom. This could play a role in the occurrence of burnout. The relationship between the teachers and their students was also not examined, which might affect the students' conduct. Future research should take such a relationship into account.

## **9 Conclusions**

The teachers with high emotional intelligence tend to be more perceptive to the desires of their students and work closely with them to improve their academic levels. They regard their students as important members of a learning community and treat them with compassion. As a result, the students know they are valued and are less likely to behave inappropriately.

Emotional intelligence also plays a critical role in adopting coping behavior. This encompasses a broad range of abilities that explain the way the teachers manage their emotions and translate these into actions.

Emotional intelligence can be developed and promoted by making training programs that aid the teachers in exercising control over their emotions and act in suitable ways rather than to react in a negative one. Training programs can focus on eliminating any ambiguity in stressful

conditions and help the teachers to combat them by facilitating the capacity to make informed choices about what should be done and how to implement it. The teachers might benefit from these programs in that they might be able to deal with professional and personal situations more effectively.

Based on the necessity of emotional intelligence in teaching, the schools should use psychological testing to select individuals with high levels of emotional intelligence and psychological well-being.

It might be useful if the teachers, supervisors and directors participate in workshops with various schools. This can assist them to acknowledge the frequent difficulties at school and ameliorate the resistance of the teachers to avoid suffering psychological illnesses.

The supervisors can also discuss with others the problems they confront at the schools and how they can provide support and encouragement for the teachers. This is particularly true of the new teachers, who often struggle with the fact that the reality of the classroom is not as they expected. However, these workshops should also concentrate on promoting the accomplishment of the directors to enable them to work better and manage the schools in collaboration with the teachers and the supervisors.

The students may not be aware that they are being disruptive. Hence, the teachers should talk to their students about their behavior and explain the roles of the classroom. The teachers should also notice the events present in the situation before such behavior can occur.

Burnout can not only be seen as a result of personal factors but also of environment influences. Therefore, it could be useful to improve the circumstances of their work at school and, at the same time, take more care of the teachers. Circumstances which should have been altered included the nature of the curriculum. Mainly as most of the teachers could not finish it and tried to teach the students extensively, leading to greater stress for the teachers and their students. These improvements should simplify and shorten the curriculum. Furthermore, the new curriculum at times proved to be overly complicated, which was often not acceptable to the teachers. This is especially the case for older teachers, who had become used to the old system. Other working conditions in need of change included the fact that the schools were sometimes uninterested in the needs of the teachers and whether the teachers were satisfied with their jobs. There was also a lack of technical methods, while the teachers found it difficult to explain the curriculum to the students.

The schools should have noticed that the teachers also had just as many needs as the students and the schools are responsible for both. Technical methods are also important with regard to the curriculum. This is in spite of the necessary collaboration with the families of the students in learning more about the students. The schools organized one meeting with them at the end of the semester, which took place too late and was not enough.

However, many supervisors have little experience of how they might help the teachers. The question arises whether this is sufficient to supervise the teachers and whether the teachers want to work with them as a team. Training programs for the supervisors would be helpful and should be longer than normally prescribed.

Another problem the teachers encounter is a high number of students in the classroom. On the one hand, this allows for fewer opportunities for the students to ask and to interact with the teacher. On the other hand, it is difficult for the teacher to attend to all students in the classroom. It is complicated for the teachers, who experience burnout to change their jobs. Therefore, they prefer to remain in teaching. Of course, this will have a negative influence on the students. Hence, the teaching system needs to change to make it possible for the teachers to decide to search for new jobs.

The changes and improvement in the policing of the schools are necessary and would have an impact on job satisfaction. It should be taken into account that the teachers should not feel under control from the director or from the supervisors, rather that they can participate in the decision-making process.

The teachers at the university during their studies are not given enough chance to practice what they studied during training courses. This might have a negative affect on the teachers when they start to work at the schools as they may feel unsure how to deal with demands at work. Training courses are needed at the university to give more information for the teachers relating to their jobs, including which kind of problems they might have at the schools and how they can cope with them.

The new teachers ought to work in a village or in another city for many years before they are allowed to teach in the cities. Despite having no teaching experience, they also face poor working conditions and this causes them even more stress. The teaching system should do the opposite by allowing the old teachers who have a lot of experience to teach in villages, while the younger or less experienced teachers should work in cities in better circumstances.

In the summer the teachers are forced to work in preparation for final exams with other students and must correct their exams for two months. Otherwise, if they refused to do this, they would earn a lower salary for this period. Furthermore, teachers have about a month's vacation, which remains relatively short within the wider context.

All this renders teaching a highly difficult career path and should be changed in order to encourage more good people to enter the teaching profession. Intervention might be helpful in developing teaching skills and in reconstructing relationships with other teachers by focusing more on working as a team, practicing coping strategies and self evaluation. Intervention should be monitored so that it is amply flexible to deal with unexpected events. Training courses are also beneficial, which inform the teachers of how they can collaborate with their colleagues successfully. Thus, empowering the communion with them without the need for a feeling of authority.

It might be the case that these teachers are not capable of dealing with stress. In this instance, it would be helpful to participate in training programs for stress management, in which they would identify the sources of the stress, learn new methods to cope effectively with pressure and practice how they can work together with other teachers at the school, exchanging experiences with them. Moreover, it would be better to attend such programs regularly.

The teachers who showed that they are concerned about their students reinforce them to be more trusting of their own abilities and create a positive attitude in the students, making them less likely to behave in an unwanted manner.

Projects are needed at the schools, such as those involving sharing plans with the students, engaging the students in discussion and other various tasks, giving feedback about their work and considering differences between them. In addition, the schools should create and nurture a climate of support for the teachers that enable them to deliver a high quality of care for their students.

Some teachers tend to control the classroom and have a strict way of dealing with students who behave in an inappropriate manner instead of trying to understand why they display this type of behavior. The teachers should be more careful when dealing with these students, so that they might work together with the psychologists' counselors at the schools, in order to help them. It might also be helpful to test various psychological aspects of the students to know more about them, such as which specific kind of difficulties they are experiencing.

Counselors at the schools who work for the students can also play a major role in understanding the needs of the students and encouraging them to have more interaction with their teachers.

The university should be more careful in selecting its students, who will later become teachers and potentially make training programs, in which they know many new technical teaching methods in order to be able to teach in a simple way. It is important to change the curriculum, but the teachers should have more time to understand and practice it before they teach it. The salary should improve, which would inspire the teachers to work harder. The schools should be more attentive to the teachers and the problems they have and try to solve them. Hence making the teachers more concentrated on their work.

The reform in the teaching process should not only be dependent on a new curriculum but should also concentrate on its quality and focus on more interaction between teachers and their students. It is necessary to create various projects, in order to give teachers more information about burnout and how they can overcome it and to understand how they can deal with the problems of their students and at work generally.

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## 11 Papers

- 11.1 Nizielski, S., Hallum, S., Lopes, P., & Schütz, A. (2010). Attention to Student Needs Mediates the Relationship between Teacher Emotional Intelligence and Student Misconduct in the Classroom. Manuscript in preparation for publication ..... 25
- 11.2 Hallum, S., Nizielski, S., Lopes, P., & Schütz, A. (2011). Emotional Intelligence, Proactive Coping, and Burnout in Syrian Teachers: Examination of a Mediation Model. Manuscript in preparation for publication ..... 45
- 11.3 Hallum, S. (2011). The Role of Job Satisfaction as a Mediator between Negative or Positive Affect and Burnout. Manuscript in preparation for publication ..... 78

Attention to Student Needs Mediates the Relationship between Teacher Emotional Intelligence and Student Misconduct in the Classroom

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### Abstract

Understanding the relationship between teachers' emotional intelligence and student misconduct was the goal of this research. We assumed that teachers high in emotional intelligence establish good working relationships with students by being attentive to students' needs. In a sample of 300 Syrian teachers, emotional intelligence was assessed with the Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002). Results showed that perceived emotional intelligence of teachers was negatively related to student misconduct and that this relationship was mediated by teachers' attention to student needs. Our findings highlight the role of teachers' emotional intelligence in shaping social interactions in the classroom and lead to some practical implications for teacher education.

*Keywords:* Emotional intelligence, teachers, attention to student needs, social interaction, misconduct

## **Attention to Student Needs Mediates the Relationship between Teacher Emotional Intelligence and Student Misconduct in the Classroom**

There is growing evidence that emotional intelligence (EI) is related to job performance (Mayer, Salovey, & Caruso, 2008). Some workplace settings more than others include social interactions that elicit emotions (Mossholder, Settoon, Armenakis, & Harris, 2000). In jobs characterized by high emotional labor, it is necessary to accurately perceive and appropriately manage emotions. Teaching, for example, involves continuous and sometimes conflict-prone interactions with students (Gregoriadis & Tsigilis, 2008). Teachers' emotional intelligence can promote adaptive reactions in emotionally charged situations (Perry & Ball, 2007).

To deal with emotions and to use them in order to achieve desired outcomes can be considered elements of emotional intelligence. There has been much debate on the conceptualization and measurement of the construct. Currently, two models of EI exist: the ability model and so-called mixed models. Mixed models view EI as a trait conglomerate that combines emotional competencies with other personality facets. By contrast, the ability model proposed by Mayer and Salovey (1997) views EI as an interrelated set of skills involved in processing emotional information, including perceiving, understanding, using, and regulating emotions in the self and others. This model is well grounded in theory and supported by research (e.g., Mayer, Salovey, Caruso, & Sitarenios, 2003). In measuring EI, there are performance tests that assess a participant's ability within a laboratory context. Self-report measures, on the other hand, are based on a participant's subjective experience during everyday interactions. In this study, we examined perceived EI based on the ability model.

### **Teacher Emotional Intelligence**

Previous research points to the importance of teacher EI in the school setting. Teachers' trait emotional intelligence was related to perceived efficacy in responding to students and managing the classroom (Di Fabio & Palazzeschi, 2008). Perry and Ball (2007) found that teachers with high ability EI dealt more constructively with negative situations and were more likely to look for positive solutions (Perry & Ball, 2007). Sutton's (2004) qualitative study suggested that regulating one's own emotions and those of students is essential for teachers (Sutton, 2004).

In our study, we examined the relationship between teachers' perceived EI and student misconduct, as well as one possible mechanism underlying this relationship. We expected teachers' perceived emotional intelligence to be negatively related to student misconduct

(Hypothesis 1) because in previous studies a person's EI was linked to the behavior of others (e.g., Wong & Law, 2002). Effects were expected with respect to emotion appraisal and emotion regulation specifically and with respect to emotional intelligence as an overall construct. As student and teacher behavior are closely intertwined (Bakker, Hakanen, Demerouti, & Yanthopoulou, 2007), emotionally perceptive teachers may be more susceptible to their students' emotional states. The ability to regulate emotions may influence the emotional tone of the interaction and facilitate attention to student needs (Hypothesis 2), which again should be negatively related to student misconduct (Hypothesis 3). Attention to student needs would mediate the influence of EI on student misconduct (Hypothesis 4).

## Method

**Subjects.** Three hundred Syrian teachers (95 men and 205 women) from 13 schools participated voluntarily in the study. Teachers' mean age was 40.37 years ( $SD = 7.77$ ) and they had taught for a mean of 15.37 years ( $SD = 7.94$ ). Their students' ages varied between 10 and 18 years.

**Procedure.** We invited approximately 400 teachers to participate in a study concerning emotions at school. Those who agreed to take part received brief oral instructions and were assured that their responses would be treated confidentially. The teachers completed a set of questionnaires and returned them on the same day. All scales were translated into Arabic and then translated back into the original language to ensure that the contents were equivalent.

### Measurement.

**Emotional intelligence.** We used the Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002) to measure perceived emotional intelligence. The scale consists of four dimensions that can be mapped into the ability model (Salovey & Mayer, 1990). Each subscale consists of four items with a 7-point response format ranging from *totally disagree* to *totally agree*. For example, the subscale regulation of emotion includes items like "I can always calm down quickly when I am angry."

**Attention to student needs.** A 15-item exploratory measure was created to assess teachers' attention to student needs, based on a review of the literature on teachers' supportive behavior. Responses are on a 5-point response scale ranging from *strongly disagree* to *strongly agree*. Sample item: "I help my students whenever they really need help."

**Student misconduct.** To assess teacher-perceived misconduct of students we used an adapted version of the Pupil Behavior Patterns (PBP) Scale (Friedman, 1995), with a 5-point

response scale: (1) *strongly disagree*, (2) *disagree*, (3) *neither agree nor disagree*, (4) *agree*, (5) *strongly agree*. Item as example: “They all talk at the same time.”

**Demographics.** Teachers reported age, gender, level of education, and teaching experience.

## Results

Table 1 shows descriptive statistics for the main measures of interest. Perceived overall emotional intelligence, attention to student needs, as well as student misconduct were significantly skewed. Age, gender, level of education, and teaching experience were unrelated to teachers’ perceived overall emotional intelligence, attention to student needs, and student misconduct. Other-emotion appraisal increased with teaching experience ( $r_s = .15, p < .01$ ).

Spearman correlations are presented in Table 2. Teachers’ perceived overall emotional intelligence as well as self-emotion appraisal, and regulation of emotion were negatively related to student misconduct, which partially supports Hypothesis 1. In line with Hypothesis 2, perceived overall EI and all dimensions of emotional intelligence were positively related to attention to student needs. Attention to student needs was negatively related to student misconduct ( $r_s = -.28, p < .01$ ), which matches Hypothesis 3.

To examine mediation, we tested indirect effects using the nonparametric bootstrapping approach (see Preacher & Hayes, 2004). Bootstrapped estimates are reported in Table 3. Perceived overall emotional intelligence exerted an indirect effect on student misconduct through attention to student needs ( $\gamma = -.13, p < .05, 95\% CI [-.21, -.05]$ ), which supports Hypothesis 4. Controlling for attention to student needs, the direct effect of perceived emotional intelligence on student misconduct became nonsignificant, indicating full mediation<sup>1</sup> (see Figure 1). With regard to the dimensions of perceived EI, we found indirect effects of self-emotion appraisal and regulation of emotion on student misconduct through attention to student needs.

## Discussion

Our finding that teachers’ perceived EI was negatively related to student misconduct in the classroom supports and extends previous findings on the importance of emotional intelligence in shaping and improving social relationships (e.g., Lopes, Salovey, Côté, & Beers, 2005). Results suggest that teachers’ ability to appraise, use, and regulate emotions plays an important role in classroom interactions. Teachers high in perceived emotional intelligence were more attentive to their students’ needs. We reason that teachers who are emotionally balanced have more resources for attending to their students and can see more

clearly what their students need. Attention to student needs on the other hand is negatively associated with student misconduct. It seems plausible that students who feel well attended to are less inclined to misbehave. Thus, it can be argued that the process through which teachers' emotional abilities are linked to student conduct seems to be the sincere focus on the individual and his or her specific desires, problems, resources, and weaknesses.

### **Limitations and implications for further researches**

Some limitations of this study should be noted. First, because of our cross-sectional design we cannot infer causality. Second, self-reports might be limited by problems with self-knowledge and social desirability. Third, the relationship between perceived emotional intelligence and student misconduct may vary across cultural contexts and should be studied in other cultures too.

Although we cannot infer causality, our findings suggest that teacher selection could be improved by attending to emotional and interpersonal skills. Furthermore, teacher training programs could be extended by modules that strengthen emotional abilities. Participating in such programs might advance the quality of teaching: Teachers with high levels of perceived EI reported being more attentive to their students' needs. In turn, awareness of a student's needs seems to be related to the student's efforts in class and can thus improve classroom interactions. In sum, strengthening teachers' emotional abilities may entail benefits for both teachers and students.



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## Footnote

<sup>1</sup>To check whether the nested structure of the data might distort these analyses, we conducted multilevel analyses (Raudenbush & Bryk, 2002) that took into account variability between schools. Results were consistent with the analyses reported here.

Table 1

*Descriptive Statistics*

	<i>M</i>	<i>SD</i>	<i>α</i>
1. Self-emotion appraisal	5.98	0.77	.83
2. Other-emotion appraisal	5.57	0.92	.84
3. Regulation of emotion	5.77	0.99	.84
4. Overall emotional intelligence	5.81	0.65	.88
5. Student misconduct	2.41	0.79	.84
6. Attention to student needs	4.13	0.42	.78

Table 2

*Spearman Correlations between Variables in the Study*

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	Attention to student needs	Student misconduct
Self-emotion appraisal	.31**	-.16**
Other-emotion appraisal	.30**	-.07
Regulation of emotion	.33**	-.30**
Overall emotional intelligence	.44**	-.24**

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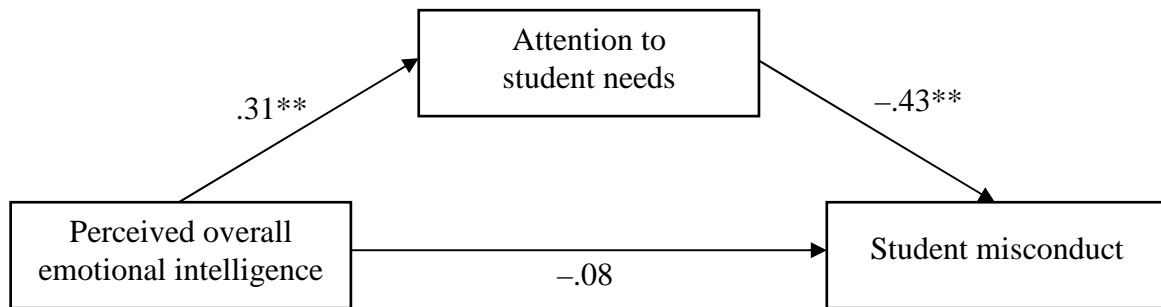
\*\*  $p < .01$ , two-tailed.

Table 3

*Results of Bootstrap Analyses on the Mediating Role of Attention to Student Needs in the Relationship between Perceived Emotional Intelligence and Student Misconduct*

Mediation model	$\gamma$	SE	BCa 95% CI	
			Lower	Upper
1. self-emotion appraisal (X) → attention to student needs (M) → student misconduct (Y)	-.09	.03	-.14	-.04
2. regulation of emotion (X) → attention to student needs (M) → student misconduct (Y)	-.06	.02	-.09	-.02
3. overall EI (X) → attention to student needs (M) → student misconduct (Y)	-.13	.04	-.21	-.05

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples;  $\gamma$  = indirect effect; X = predictor, M = mediator, Y = criterion.



*Figure 1.* Illustration of full mediation. Perceived overall emotional intelligence exerted an indirect effect on student misconduct through attention to student needs.

\*\*  $p < .01$ , two-tailed.

Emotional Intelligence, Proactive Coping, and Burnout in Syrian Teachers:  
Examination of a Mediation Model.

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### Abstract

Burnout is a serious problem within the teaching profession. Previous studies (e. g., Chan, 2006) found emotionally intelligent teachers to less frequently suffer from burnout than others. The aim of this study is to investigate the process underlying this relationship. We test proactive coping as a potential mediator. Moreover, we assume that support from a supervisor can be crucial when dealing with stress at work. 300 teachers participated voluntarily in this study. They completed self-report measures on emotional intelligence, proactive coping, burnout, and work demands. Additionally, they rated the support received from their supervisors. Mediation analyses showed proactive coping to fully mediate the relationship between emotional intelligence and emotional exhaustion as well as the relationship between emotional intelligence and depersonalization. Additionally, results indicated partial mediation in the relationship between emotional intelligence and burnout as well as between emotional intelligence and reduced personal accomplishment. Via moderated mediation analyses we found that the indirect negative effect of emotional intelligence on reduced personal accomplishment through proactive coping is larger for teachers receiving strong support from their supervisors. Results are discussed with respect to the prevention and intervention of teacher burnout.

Three months of holidays, working half a day in the remaining months — such are common ideas about teaching in the general population and many people consider teaching an easy job. But there is evidence for the contrary: Teachers have to deal with severe stressors like student misbehavior (Burke, Greenglass, & Schwarzer, 1996; Kokkinos, 2007; Nizielski, Hallum, Lopes & Schütz, 2010, in press), heavy workload (Kokkinos, 2007; van Dick & Wagner, 2001), poor relationships with colleagues and supervisors (Burke, Greenglass, & Schwarzer, 1996; Kokkinos, 2007), or criticism from parents (Stoeber & Rennert, 2008). Teacher stress is a widespread problem in different educational settings and burnout accumulates in teachers more than in other public service employees (Kokkinos, Panayiotou, & Davazoglou, 2005).

Burnout can lead to serious consequences for the teacher, students, and the organization. Teachers are at risk for high levels of psychological distress and physical health complaints (Burke, Greenglass, & Schwarzer, 1996). Burnout is often linked to lower job satisfaction (Lee & Ashforth, 1993; Tsigilis, Koustelios, & Togia, 2004). Moreover, employees who suffer from burnout show reduced job performance (Low, Cravens, Grant, & Moncrief, 2001; Parker & Kulik, 1995) and work-family conflicts are frequent (Burke & Mikkelsen, 2006; Lambert, Hogan, & Altheimer, 2010).

It is, however, clear that teachers do not react uniformly to common stressors and high levels of job stress do not always lead to burnout. For this reason it is important to explore why some teachers are less impaired than others in the face of similar work stress. In our study we examined emotional intelligence as a factor that may dispose teachers to cope more adaptively with stressors.

### **Teacher emotional intelligence**

Previous research points to the importance of teacher emotional intelligence (EI) in the context of school (e. g., Chan, 2004, 2006, 2008; Di Fabio, & Palazzeschi, 2008; Palomera, Fernández-Berrocal, & Brackett, 2008; Platsidou, 2010). The concept of EI which is currently defined in a two-fold way was proposed by Salovey and Mayer (1990). According to the ability model EI is a specific type of intelligence involved in processing emotional information. It comprises four dimensions: Perceiving, understanding, using, and regulating emotions (Mayer & Salovey, 1997). In contrast, mixed models (e. g., Bar-On, 1997) do not classify EI as a cognitive ability but as a trait conglomerate combining emotional competencies with other personality facets like optimism, interpersonal sensitivity, or resilience (Dulewicz & Higgs, 1999; Mikolajczak, Luminet, Leroy, & Roy, 2007).

There is not only much debate on the conceptualization of EI but also on the model of measurement. First, there are performance tests that assess a person's actual capacity within a laboratory context. Second, there are self-report measures that focus on a person's self-efficacy about his or her emotional skills yielding from subjective experiences during everyday interaction. Ability EI can be assessed by self-report or test, trait EI only by self-report (Zeng & Miller, 2001). Taken together, there are three distinct construct-method pairings that all tap in different aspects of emotional intelligence. In our study, we focused on the ability model of EI as it is well-grounded in theory and has found sufficient empirical support. We assessed teacher EI by self-report because performance test scores do not indicate whether the teacher actually uses disposable skills and knowledge effectively in the school setting. The small association between performance test ability EI and self-report ability EI (e. g., .12; Joseph & Newman, 2010) suggests that general abilities and everyday behavior are only weakly related. In contrast, we considered it advantageous to rely on their reports of their actual experiences.

### **Coping**

Emotional intelligence seems to be a personal resource when coping with stress. Coping has been defined by Lazarus and Folkman as cognitive and behavioral efforts used to deal with situations thought to be stressful (Lazarus & Folkman, 1984). There are two basically different strategies in coping: A person can approach stress producing factors in a direct, constructive way (i. e., active coping) or can act passively by modifying the emerging psychological reaction (i. e., passive coping) (Lechner, Bolman & van Dalen, 2007).

Proactive coping can be considered as “an effort to build up general resources that facilitate promotion toward challenging goals and personal growth” (Schwarzer & Taubert, 2002.p.9).

### **Burnout**

Some people do not cope adequately with stressors and consequently suffer from health impairment. Burnout is often the consequence of chronic stress, arising particularly from intense interactions with other people (Maslach & Goldenberg, 1998). Teachers who are burnt out may experience one or more of three typical components (Maslach, 1982; Maslach & Jackson, 1984). Emotional exhaustion refers “to feelings of being emotionally overextended and depleted of one's emotional resources”. Depersonalization refers to “a negative, callous, or excessively detached response to other people, which often includes a loss of idealism”. Reduced personal accomplishment refers to “a decline in feelings of competence and productivity at work” (Maslach & Goldenberg, 1998.p.64).

### **Emotional Intelligence and Coping**

Empirical studies on emotional intelligence and coping suggest that teachers with high ability EI tend to cope in an active manner: It is especially intrapersonal EI, and to a lesser extent interpersonal EI, which were significant predictors of active coping (Chan, 2008). Teachers with high ability EI reported of dealing more constructively with negative situations and were more likely to look for positive solutions (Perry & Ball, 2007). We believe that emotional intelligence might predispose persons for effective problem solving and therefore functions as an antecedent of active coping. Persons high in emotional intelligence are able to accurately appraise their own emotions and thus need less time and effort to identify to their emotional states. Emotional clarity was negatively associated with avoidant coping strategies (Montes-Berges & Augusto, 2007). Emotions arise from particular events and the subject's interpretation of that event (Lazarus, 1991). The resulting emotional information can be used to make sense of their own reactions to stressors. Zhu and Thagard (2002) showed that emotions correspond to specific action tendencies which guide them to adaptive responding (Zhu & Thagard, 2002). In conclusion, EI seems to enhance a person's capacity to engage constructively in stressful situations (Birks, Mckendree & Watt, 2009).

### **Emotional Intelligence and Burnout**

Certain components of (self-report) ability EI seem to be adaptively related to burnout. Chan (2006) found emotional appraisal and positive regulation of emotions to be negatively associated with emotional exhaustion (Chan, 2006). Durán, Extremera, Rey, Fernández-Berrocal, and Montalbán (2006) reported that mood repair was negatively linked to that component of the burnout syndrome. Furthermore, attentions to feelings, mood clarity, as well as mood repair were positively linked to academic efficacy and negatively linked to cynicism (Durán, Extremera, Rey, Fernández-Berrocal, & Montalbán, 2006).

### **Coping and Burnout**

As already mentioned, inadequate coping responses to stressful encounters at school may lead to burnout. Previous research demonstrates that active coping was related to lower levels of burnout (Brown & O'Brien, 1998; Maslach, Schaufeli, & Leiter, 2001). Furthermore, Greenglass (2002) found proactive coping to be linked to negative outcomes such as depression or burnout (Greenglass, 2002). In terms of the different syndrome components, depersonalization was positively associated with personal accomplishment and negatively associated with active coping strategies (Anderson, 2000).

### **Coping as a Mediator**

Although research on possible mechanisms over and above mere associations is scarce. Bauld and Brown (2009) found the relationship between ability EI and physical health to be partly mediated by proactive coping (Bauld & Brown, 2009). For this reason we propose a mediation model in which EI is a resource: Teachers high in EI seem to experience less burnout. Proactive coping might operate as a mediator as teachers high in EI are capable of using adaptive coping strategies and thus are less likely to experience burnout.

### **Context as a Moderator**

Moreover, teachers might be differentially influenced by certain aspects of the context. In this reasoning, several teachers may share a certain context which makes it harder or easier for them to handle difficult situations. In the Syrian school system, teachers work in groups headed by a supervisor. The leadership style of these supervisors seems to differ significantly and some supervisors may provide more support to the teachers in their group than others (Hakel, 1985).

Social support can be considered an important personal resource when coping with stressors (Thoits, 1986). The importance of supervisor support in the burnout process has been demonstrated in previous research. Supervisors seem to provide influence in the selection of coping responses. For example, Lewin and Sager (2008) found that salespersons who feel supported by their supervisors more often than others use problem-focused coping (Lewin & Sager, 2008). Several studies confirmed the direct effect hypothesis of social support. High levels of supervisor support were associated with reduced emotional exhaustion (Sundin, Hochwalder, Bildt, & Lisspers, 2007; Lewin & Sager, 2008; Yildirim, 2008; Gibson, Grey, & Hastings, 2009; Snyder, 2009; Lambert, Altheimer, & Hogan, 2010), reduced depersonalization (Yildirim, 2008; Snyder, 2009; Gibson, Grey, & Hastings, 2009; Lambert, Altheimer, & Hogan, 2010), as well as with increased personal accomplishment (Yildirim, 2008; Gibson, Grey, & Hastings, 2009). Moreover, social support seems to serve as a buffer, especially for persons facing high levels of stress. Kirmeyer and Dougherty (1988) found that people under high work load, who also had high social support engaged in more coping actions (Kirmeyer & Dougherty, 1988). Gibson, Grey, and Hastings (2009) reported that supervisor support moderates the impact of work demands on personal accomplishment. Therapists facing high work demands and low levels of supervisor support had low scores on personal accomplishment (Gibson, Grey, & Hastings, 2009). Brackett, Palomera, Mojsa-Kaja, Reyes, and Salovey (2010) found supervisor support to mediate the association between

emotion regulation and personal accomplishment (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010).

We assume supervisor support a major type of social support within the school context. Supervisors might have faced or are facing similar work stressors. For this reason, we suppose that they are aware of the demands of the specific situation and provide appropriate solutions. Additionally, supervisors are likely to be viewed as a credible source of advice because of their positions or their experience.

The primary purpose of this study was to investigate the process underlying the relationship between emotional intelligence and burnout. Furthermore, we wanted to test whether the relationship between emotional intelligence and burnout is moderated by context.

In particular, the study targeted on testing the following hypotheses:

1. Emotional intelligence is negatively related to burnout. We expected effects specifically for self-emotion appraisal and regulation of emotion but we examined the remaining dimensions in an exploratory manner.
2. The relationship between emotional intelligence, proactive coping and burnout is moderated by supervisor support.
3. Emotional intelligence is positively related to proactive coping. We expected effects especially for intrapersonal emotional intelligence (i. e., self-emotion appraisal) but we examined the remaining dimensions in an exploratory manner.
4. Proactive coping is negatively related to burnout.
5. The relationship between emotional intelligence and burnout is mediated by proactive coping.

## **Method**

### **Participants**

Three hundred teachers (68, 3% women, 31, 7% men) from 13 schools in Syria participated voluntarily in the study. 31 supervisors of the teachers (58, 1% women, 41, 9% men). Teachers' ages ranged from 23 to 59 years ( $M = 40.37$ ,  $SD = 7.77$ ). They had an average work experience of 15.37 years ( $SD = 7.94$ ), varying between 1 and 36 years. Supervisors' ages ranged from 27 to 54 years ( $M = 42.71$ ,  $SD = 6.95$ ). They had held their office between 4 and 30 years ( $M = 18.97$ ,  $SD = 6.95$ ).

## Procedure

The study took place during regular school days. We asked 400 teachers to participate. After having received agreement from 300 teachers and their supervisors all of them received oral instructions and were assured that the data would be treated confidentially. The teachers answered questionnaires concerning emotional intelligence, proactive coping, burnout, work demands. Since the instruments used were published in languages other than Arabic, they were translated into Arabic by experts. The back-translation revealed equivalent contents. Additionally, they rated the support provided by their supervisors. We received demographic information (i.e., gender, age, work experience) from the teachers and supervisors. The completed questionnaire was returned on the same day.

## Measures

**Emotional intelligence** was assessed by the Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002), a self-report measure based on the Mayer and Salovey (1997) ability model of EI. The scale consists of four dimensions: self-emotion appraisal, other-emotion appraisal, use of emotion, and regulation of emotion. Responses were made on a seven-point Likert-type scale ranging from 1 (*totally disagree*) to 7 (*totally agree*). The global EI score<sup>1</sup> was computed by adding the scores of all subscales. Internal consistencies were between .76 (use of emotion) and .88 (global EI).

**Burnout** was measured with the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996). The scale consists of three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. Responses were made on a five-point Likert-type scale ranging from 1 (*not at all true*) to 5 (*exactly true*). The global burnout score<sup>2</sup> was computed by adding the scores of all subscales. Internal consistencies were between .77 (depersonalization) and .90 (emotional exhaustion).

**Proactive coping** was assessed by utilizing the proactive coping subscale of the Proactive Coping Inventory (PCI; Schwarzer, Greenglass, & Taubert, 1999). Responses were made on a four-point Likert-scale with end points labeled *not true at all* (1) and *completely true* (4). Cronbach's alpha coefficient was .81.

**Supervisor support** was measured with satisfaction with supervisor of the Job Satisfaction Survey (JSS; Spector, 1994). The teachers were asked to indicate the extent to which they agreed with each item on a six-point Likert-type scale ranging from *disagree very much* (1) to *agree very much* (6). Cronbach's alpha coefficient was .64.

**Work demands** was measured by using an adaptive version of job demand, which was developed by Jones and Fletcher in 1991. For each item, respondents were presented with

four alternatives. *Strongly disagree* (1), *disagree* (2), *neither agree nor disagree* (3), *agree* (4), *strongly agree* (5). A sample item for this scale is as follows: I have more work than I have time to do it. Cronbach's alpha coefficient was .79.

## Results

**Descriptive statistics.** Descriptive statistics are listed in Table 1. The variables were significantly skewed. Neither age, sex, nor teaching experience was significantly related to emotional intelligence, proactive coping, burnout, and work demands, except regarding the relationship between other-emotion appraisal and teaching experience ( $r = .15, p < .01$ ).

**Correlations between the variables.** Spearman test correlations between the variables are listed in Table 2. Emotional intelligence was significantly negatively linked to burnout. Associations between other-emotion appraisal and emotional exhaustion ( $r = -.03, p > .01$ ) as well as between other-emotion appraisal and depersonalization ( $r = -.11, p > .01$ ) were exceptions. The strongest link was between emotional intelligence and reduced personal accomplishment ( $r = -.60, p < .01$ ). Furthermore, overall or dimensions of emotional intelligence were significantly positively correlated with proactive coping and proactive coping was significantly negatively associated with overall or dimensions of burnout.

**Mediation Analyses.** Based on the results regarding the relationship between emotional intelligence and burnout, we were interested in underlying processes. The variables were not distributed normally therefore a nonparametric bootstrap test was used to examine the mediator effect of proactive coping on the relationship between emotional intelligence and burnout (see Preacher & Hays, 2004). Results of the mediation analyses are listed in Table 3. Work demands and experience were entered as covariance variables.

Concerning emotional exhaustion, the indirect effect of self-emotion appraisal on emotional exhaustion through proactive coping was significant ( $\gamma = -.07, p < .05, 95\% CI [-.13, -.02]$ ), while the direct effect of self-emotion appraisal on emotional exhaustion became insignificant once proactive coping was controlled ( $\gamma = -.01, t = -.18, p = .86$ ), reflecting a full mediation.

The indirect effect of self-emotion appraisal on depersonalization through proactive coping was significant ( $\gamma = -.09, p < .05, 95\% CI [-.15, -.05]$ ), while the direct effect of self-emotion appraisal on depersonalization became lower following the controlling of proactive coping as a mediator ( $\gamma = -.09, t = -2.28, p = .02$ ), representing a partial mediation.

The relationship between self-emotion appraisal and reduced personal accomplishment was partially mediated by proactive coping. The indirect effect was significant ( $\gamma = -.16, p < .05, 95\% CI [-.21, -.10]$ ). The direct effect between self-emotion appraisal and reduced



personal accomplishment decreased but still remained significant ( $\gamma = -.19, t = -5.94, p = .00$ ) after the controlling of proactive coping.

The association between self-emotion appraisal and burnout was partially mediated by proactive coping. The indirect effect was significant ( $\gamma = -.10, p < .05, 95\% CI [-.16, -.07]$ ), while the direct effect became lower after the controlling of proactive coping ( $\gamma = -.09, t = -2.98, p = .00$ ).

Proactive coping partially mediated the link between other-emotion appraisal and reduced personal accomplishment. The indirect effect was significant ( $\gamma = -.12, p < .05, 95\% CI [-.17, -.08]$ ). The direct effect between other-emotion appraisal and reduced personal accomplishment decreased but still remained significant ( $\gamma = -.12, t = -4.69, p = .00$ ).

Proactive coping fully mediated the association between other-emotion appraisal and burnout. The indirect effect was significant ( $\gamma = -.09, p < .05, 95\% CI [-.13, -.06]$ ) and the direct effect between other-emotion appraisal and burnout was insignificant once proactive coping was controlled ( $\gamma = -.00, t = -.18, p = .86$ ).

The relationship between emotional exhaustion and use of emotion was fully mediated by proactive coping ( $\gamma = -.09, p < .05, 95\% CI [-.15, -.02]$ ). The direct effect became insignificant after the controlling of proactive coping ( $\gamma = .02, t = .28, p = .78$ ).

The link between use of emotion and depersonalization was partially mediated by proactive coping. The indirect effect was significant ( $\gamma = -.09, p < .05, 95\% CI [-.14, -.04]$ ), whereas the direct effect between use of emotion and depersonalization declined but still remained significant ( $\gamma = -.14, t = -3.27, p = .00$ ).

The relationship between use of emotion and reduced personal accomplishment was partially mediated by proactive coping. The indirect effect was significant ( $\gamma = -.18, p < .05, 95\% CI [-.24, -.12]$ ). The direct effect of use of emotion on reduced personal accomplishment became lower after controlling proactive coping ( $\gamma = -.22, t = -6.41, p = .00$ ).

The relationship between use of emotion and burnout was partially mediated by proactive coping. The indirect effect was significant ( $\gamma = -.12, p < .05, 95\% CI [-.17, -.08]$ ), while the direct effect of use of emotion on burnout decreased but still remained significant ( $\gamma = -.10, t = -3.09, p = .00$ ).

With regard to emotional exhaustion, the indirect effect of regulation of emotion on emotional exhaustion through proactive coping was ( $\gamma = -.04, p < .05, 95\% CI [-.08, -.01]$ ), whereas the direct effect of regulation of emotion on burnout became insignificant once proactive coping was controlled as a mediator ( $\gamma = -.04, t = -.90, p = .37$ ), reflecting a full mediation.

Proactive coping fully mediated the association between regulation of emotion and depersonalization. The indirect effect was significant ( $\gamma = -.07, p < .05, 95\% \text{ CI } [-.12, -.04]$ ). The direct effect between regulation of emotion and depersonalization became insignificant after the controlling of proactive coping as a mediator ( $\gamma = -.03, t = -.84, p = .40$ ), meaning that a full mediation took place.

Proactive coping partially mediated the link between regulation of emotion and reduced personal accomplishment. The indirect effect was significant ( $\gamma = -.12, p < .05, 95\% \text{ CI } [-.17, -.08]$ ). The direct effect of regulation of emotion on reduced personal accomplishment decreased but still remained significant after controlling the mediator ( $\gamma = -.13, t = -5.22, p = .00$ ), which indicates a partial mediation.

Proactive coping partially mediated the link between regulation of emotion and burnout. The indirect effect was significant ( $\gamma = -.08, p < .05, 95\% \text{ CI } [-.12, -.05]$ ), while the direct effect of regulation of emotion on burnout became lower after the controlling of proactive coping ( $\gamma = -.07, t = -2.77, p = .01$ ).

Regarding emotional exhaustion, there was a significant indirect effect of overall emotional intelligence on emotional exhaustion through proactive coping ( $\gamma = -.12, p < .05, 95\% \text{ CI } [-.22, -.03]$ ), and the direct effect of emotional intelligence on emotional exhaustion became insignificant after the controlling of the proactive coping ( $\gamma = .03, t = .35, p = .72$ ), meaning a full mediation.

Concerning depersonalization, the indirect effect of emotional intelligence through proactive coping was significant ( $\gamma = -.13, p < .05, 95\% \text{ CI } [-.22, -.06]$ ). After controlling proactive coping, the direct effect of emotional intelligence on depersonalization became insignificant ( $\gamma = -.10, t = -1.72, p = .09$ ), showing a full mediation.

Proactive coping partially mediated the link between emotional intelligence and reduced personal accomplishment. The indirect effect was significant ( $\gamma = -.19, p < .05, 95\% \text{ CI } [-.25, -.13]$ ), whereas the direct effect between emotional intelligence and reduced personal accomplishment became lower but still remained significant following the controlling of the mediator ( $\gamma = -.34, t = -8.64, p = .00$ ).

As expected, proactive coping partially mediated the relationship between emotional intelligence and burnout. The indirect effect was significant ( $\gamma = -.15, p < .05, 95\% \text{ CI } [-.21, -.09]$ ), while the direct effect between emotional intelligence and burnout decreased but still remained significant once proactive coping was controlled ( $\gamma = -.14, t = -3.24, p = .00$ ).

**Moderation Mediation Analyses.** To examine the influence of the context on the relationship between teacher EI, proactive coping and burnout, we also analyzed moderation

mediation (Model 5 in Preacher, Rucker & Hays, 2007). In detail, we tested if the relationship between emotional intelligence, proactive coping and burnout is moderated by supervisor support after controlling work demands and experience as covariance variables. Results are presented in Tables 4, 5 and 6. The analyses revealed by testing the moderating effect of supervisor support on the model (emotional intelligence → proactive coping → reduced personal accomplishment) that the relationship between emotional intelligence and proactive coping was moderated by supervisor support ( $\beta = 0.08$ ,  $t = 2.07$ ,  $p = 0.04$ ) but the relationship between proactive coping and reduced personal accomplishment was not moderated by supervisor support ( $\beta = -.08$ ,  $t = -1.31$ ,  $p = 0.19$ ).

Considering the model (regulation of emotion → proactive coping → emotional exhaustion) we found that supervisor support moderated the relationship between regulation of emotion and proactive coping ( $\beta = -.08$ ,  $t = -2.14$ ,  $p = 0.03$ ) but it played no moderating role in the bond between proactive coping and emotional exhaustion ( $\beta = 0.13$ ,  $t = 1.31$ ,  $p = 0.19$ ).

Finally, supervisor support moderated the relation between proactive coping and depersonalization ( $\beta = 0.19$ ,  $t = 2.49$ ,  $p = 0.01$ ) but it did not moderate the relationship between regulation of emotion and proactive coping ( $\beta = -.02$ ,  $t = -.76$ ,  $p = .45$ ) in the model (regulation of emotion → proactive coping → depersonalization). All other moderation mediation results were not significant.

## Discussion

In the current article we focused on emotional intelligence as a personal resource when dealing with stressors at work. In line with previous studies, the likelihood of being burnt out increased with decreasing emotional intelligence. We expected especially strong effects with respect to intrapersonal aspects of EI.

We found a significant relation between either self-emotion appraisal or regulation of emotion and overall or dimensions of burnout. The strongest effects were found with respect to the link between overall or dimensions of emotional intelligence and reduced personal accomplishment.

Furthermore, we investigated proactive coping as a mediating factor. We found a significantly positive effect of emotional intelligence on proactive coping. Those teachers are high in EI tend particularly to use proactive coping strategies.

Last but not least, we assumed a negative effect of proactive coping on burnout and indeed our results indicated that proactive coping accompanies a lower risk of burnout.

Additionally, we were interested whether the relationship between emotional intelligence, proactive coping and burnout was moderated by support from supervisors. There was a stronger negative effect of emotional intelligence on reduced personal accomplishment through proactive coping for teachers who have more support from their supervisors in the model (emotional intelligence  $\rightarrow$  proactive coping  $\rightarrow$  reduced personal accomplishment). The indirect influence of regulation of emotion on depersonalization through proactive coping was negatively stronger to teachers who receive more support from their supervisors in the model (regulation of emotion  $\rightarrow$  proactive coping  $\rightarrow$  depersonalization).

Amazingly, we found lower negative effect of regulation of emotion on emotional exhaustion through proactive coping for teachers who get more support from their supervisors in the model (regulation of emotion  $\rightarrow$  proactive coping  $\rightarrow$  emotional exhaustion).

This suggests that the resource EI can work better in a context in which there is supervisor support. We presume that supervisor support helps teachers to implement their emotional abilities by keeping them task-oriented and focused on the solution of problems (i. e., proactive coping). Moreover, supervisors may encourage teachers to control their emotions to be able to use their resources to cope with stress.

To our knowledge, little attention has been given to the process underlying the relationship between emotional intelligence and burnout. We had hypothesized that particularly teachers high in EI use proactive coping as a strategy and in turn suffer less from burnout.

We found proactive coping to fully mediate the relationship between self-emotion appraisal and emotional exhaustion, the relationship between other-emotion appraisal and burnout, as well as the relationship between use of emotion and emotional exhaustion, the relationship between regulation of emotion and either emotional exhaustion or depersonalization and the link between overall EI and either emotional exhaustion or depersonalization.

Proactive coping mediated partially the link between the two dimensions of emotional intelligence (self-emotion appraisal and use of emotion) and depersonalization as well as the link between overall or dimensions of emotional intelligence and reduced personal accomplishment in addition to the relation between overall emotional intelligence or the three dimensions of emotional intelligence (self-emotion appraisal, use of emotion and regulation of emotion) and burnout.

### **Limitations of the current study and implications for future research**

As the current study was cross-sectional the question whether emotional intelligence downsizes the risk in a longitudinal perspective is still open. We cannot show that emotional abilities have effects on burnout because the reverse effect may be relevant too: it is possible, for example that burnout constrains emotional abilities. Since EI, however, is considered a stable trait and burnout is usually a temporary state we think that there is reason to believe that EI contributes to the prevention of burnout.

In our study we focused on proactive coping but could not study other strategies, such as emotion-focused coping. The effects of other strategies should likewise be studied in future research since active coping may only be helpful in the face of controllable stress.

Regarding supervisor support we asked the teachers whether or not they received support from their supervisors. Unfortunately, we could not collect information on the type of support. In future studies, supervisor support should be investigated with regard to different types (i. e., emotional, informational, or instrumental support). For example, Prins and his colleagues (2007) found dissatisfaction with emotional support received from supervisors to be the best predictor of burnout (Prins, Hoekstra-Weebers, Gazendam-Donofrio, Van de Wiel, Sprangers, Jasperd, & Van der Heijden, 2007).

In this study we used self-report measures. On the one hand, this might have inflated the strength of the relationships among the variables due to common method variance. Unfortunately, people are not quite accurate in their self-ratings. Self-reports are susceptible to socially desirable responses (Paulhus, 1991). It is possible that the teachers exaggerated their rating on desirable variables (i. e., emotional abilities, proactive coping) and downplayed their rating on undesired variables (i. e., burnout). Beyond that, some teachers might have especially limited self-knowledge concerning their emotional abilities as daily life provides little opportunity for explicit feedback on emotional intelligence. Brackett, Rivers, Shiffman, Lerner, and Salovey (2006) found persons high in emotional intelligence to overestimate their performances on an emotional intelligence test and persons with low levels of emotional intelligence to underestimate their scores ( Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006).

On the other hand, self-ratings but not other-ratings might be appropriate as only the teacher himself or herself can provide accurate knowledge or perception of the own person. Future research could do complementary research based on ability measures or peer-report.

### **Conclusions and practical implications**

To sum up, our results adumbrate why emotionally intelligent teachers are less burned out than their counterparts: They tend to use proactive coping. Hence, emotional intelligence seems to be an important personal resource of teachers. We would therefore recommend amplifying conventional training programs by including modules that strengthen teachers' emotional abilities. Improved emotional abilities are associated with adaptive coping strategies. And in turn, proactive coping is linked to a lower risk of burnout.

However, teacher burnout is not only associated with characteristics of the teacher himself or herself. Supervisors seem to play a decisive role in the process of teacher burnout too. The relationship between emotional intelligence and burnout was stronger for teachers who sustain support from their supervisors. Therefore, supervisors should be requested to support their staff more strongly and to keep the teachers task-oriented.

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Table 1

*Descriptive Statistics*

	M	SD	$\alpha$
1. Age	40.37	7.77	
2. Teaching experience	15.37	7.94	
3. Supervisor support	4.39	1.05	.64
4. Emotional intelligence	5.81	.65	.88
5. Self-emotion appraisal	5.98	.77	.83
6. Other-emotion appraisal	5.57	.92	.84
7. Use of emotion	5.91	.77	.76
8. Regulation of emotion	5.77	.99	.84
9. Proactive coping	3.39	.43	.81
10. Burnout	1.69	.84	.89
11. Emotional exhaustion	1.97	.67	.90
12. Depersonalization	1.63	.54	.77
13. Reduced personal accomplishment	1.57	.52	.85
14. Work demands	2.89	.80	.79

*Note.* Cronbach's alpha is reported for all scales except for demographic variables.

Table 2

*Correlations between Emotional Intelligence, Proactive Coping, Burnout and Work Demand.*

	1	2	3	4	5	6	7	8	9	10	11	12
1. Emotional intelligence	1	.73**	.68**	.76**	.78**	.55**	-.37**	-.16**	-.23**	-.60**	-.09	.07
2. Self-emotion appraisal		1	.45**	.51**	.45**	.39**	-.34**	-.16**	-.21**	-.44**	-.09	.02
3. Other emotion appraisal			1	.35**	.32**	.43**	-.18**	-.03	-.11	-.45**	-.00	.15**
4. Use of emotion				1	.55**	.49**	-.32**	-.12*	-.25**	-.51**	-.08	.01
5. Regulation of emotion					1	.38**	-.30**	-.15**	-.16**	-.42**	-.06	.02
6. Proactive coping						1	-.43**	-.22**	-.32**	-.64**	-.02	.02
7. Burnout							1	.89**	.67**	.64**	.42**	-.03
8. Emotional exhaustion								1	.49**	.30**	.48**	-.00
9. Depersonalization									1	.43**	.29**	-.06
10. Reduced personal accomplishment										1	.08	-.10
11. Work demands											1	-.07
12. Experience												1

Note: \*\* $p < .01$ , two-tailed. \* $p < .05$ , two-tailed.

Table 3

*Results of Bootstrap Analyses on the Mediating Role of Proactive coping in the Relationship between Perceived Emotional Intelligence and Burnout.*

Mediation model	$\gamma$	SE	BCa 95% CI	
			Lower	Upper
1. Self-emotion appraisal (X) → proactive coping (M) → emotional exhaustion (Y)	-.07	.03	-.13	-.02
2. Self-emotion appraisal (X) → proactive coping (M) → depersonalization (Y)	-.09	.02	-.15	-.05
3. Self-emotion appraisal (X) → proactive coping (M) → reduced personal accomplishment (Y)	-.16	.03	-.21	-.10
4. Self-emotion appraisal (X) → proactive coping (M) → burnout (Y)	-.10	.02	-.16	-.07
5. Other-emotion appraisal (X) → proactive coping (M) → reduced personal accomplishment (Y)	-.12	.02	-.17	-.08
6. Other-emotion appraisal (X) → proactive coping (M) → burnout (Y)	-.09	.02	-.13	-.06
7. Use of emotion (X) → proactive coping (M) → emotional exhaustion(Y)	-.09	.03	-.15	-.02
8. Use of emotion (X) → proactive coping (M) → depersonalization(Y)	-.09	.03	-.14	-.04
9. Use of emotion (X) → proactive coping (M) → reduced personal accomplishment (Y)	-.18	.03	-.24	-.12
10. Use of emotion (X) → proactive coping (M) → burnout	-.12	.02	-.17	-.08
11. Regulation of emotion (X) → proactive coping (M) → emotional exhaustion (Y)	-.04	.02	-.08	-.01
12. Regulation of emotion (X) → proactive coping (M) → depersonalization (Y)	-.07	.02	-.12	-.04
13. Regulation of emotion (X) → proactive coping (M) → reduced personal accomplishment (Y)	-.12	.02	-.17	-.08
14. Regulation of emotion (X) → proactive coping (M) → burnout (Y)	-.08	.02	-.12	-.05
15. Overall EI (X) → proactive coping (M) → emotional exhaustion (Y)	-.12	.05	-.22	-.03
16. Overall EI (X) → proactive coping (M) → depersonalization (Y)	-.13	.04	-.22	-.06
17. Overall EI (X) → proactive coping (M) → reduced personal accomplishment (Y)	-.19	.03	-.25	-.13
18. Overall EI (X) → proactive coping (M) → burnout (Y)	-.15	.03	-.21	-.09

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariates: work demands and experience,  $\gamma$  = indirect effect; X = predictor, M = mediator, Y = criterion.

Table 4

*Supervisor Support as a Moderator of the Relationship between Emotional Intelligence, Proactive Coping and Emotional Exhaustion.*

	$\gamma$	SE	T	P
1.a. Overall EI (X) $\rightarrow$ proactive coping (M) $\rightarrow$ emotional exhaustion(Y) overall EI $\times$ supervisor support	.01	.07	.07	.94
1.b. Overall EI (X) $\rightarrow$ proactive coping (M) $\rightarrow$ emotional exhaustion (Y) proactive coping $\times$ supervisor support	.02	.12	.22	.83
2.a. Self-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ emotional exhaustion (Y) self-emotion appraisal $\times$ supervisor support	-.02	.05	-.34	.74
2.b. Self-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ emotional exhaustion (Y) proactive coping $\times$ supervisor support	.05	.10	.45	.65
3.a. Use of emotion (X) $\rightarrow$ proactive coping (M) $\rightarrow$ emotional exhaustion(Y) use of emotion $\times$ supervisor support	.06	.05	1.23	.22
3.b. Use of emotion (X) $\rightarrow$ proactive coping (M) $\rightarrow$ emotional exhaustion(Y) proactive coping $\times$ supervisor support	-.04	.11	-.36	.72

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariates: work demands, teaching experience,  $\gamma$  = coefficient; X = predictor, M = mediator, Y = criterion.



Table 5

*Supervisor Support as a Moderator of the Relationship between Emotional Intelligence, Proactive Coping and Depersonalization.*

	$\gamma$	SE	T	P
1.a. Overall EI (X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) overall EI $\times$ supervisor support	.02	.05	.30	.77
1.b. Overall EI (X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) proactive coping $\times$ supervisor support	.14	.09	1.56	.12
2.a. Self-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) self-emotion appraisal $\times$ supervisor support	.03	.04	.65	.51
2.b. Self-emotion appraisal(X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) proactive coping $\times$ supervisor support	.13	.08	1.63	.10
3.a. Use of emotion (X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) use of emotion $\times$ supervisor support	.02	.04	.62	.53
3.b. Use of emotion (X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) proactive coping $\times$ supervisor support	.11	.08	1.33	.19
4.a. Regulation of emotion (X) $\rightarrow$ proactive coping (M) $\rightarrow$ depersonalization (Y) regulation of emotion $\times$ supervisor support	-.02	.03	-.76	.45
4.b. Regulation of emotion (X) $\rightarrow$ proactive coping(M) $\rightarrow$ depersonalization (Y) proactive coping $\times$ supervisor support	.19*	.08	2.49	.01

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariates: work demands, teaching experience,  $\gamma$  = coefficient; X = predictor, M = mediator, Y = criterion.

Table 6

*Supervisor Support as a Moderator of the Relationship between Emotional Intelligence, Proactive Coping and Reduced Personal Accomplishment.*

	$\gamma$	SE	T	P
1.a. Overall EI (X) → proactive coping (M) → reduced personal accomplishment (Y) overall EI × supervisor support	.08*	.04	2.07	.04
1.b. Overall EI (X) → proactive coping (M) → reduced personal accomplishment (Y) proactive coping × supervisor support	-.08	.06	-1.31	.19
2.a. Self-emotion appraisal (X) → proactive coping (M) → reduced personal accomplishment (Y) self-emotion appraisal × supervisor support	.06	.03	1.84	.07
2.b. Self-emotion appraisal (X) → proactive coping (M) → reduced personal accomplishment (Y) proactive coping × supervisor support	-.05	.06	-.79	.43
3.a. Other-emotion appraisal (X) → proactive coping (M) → reduced personal accomplishment (Y) other-emotion appraisal × supervisor support	.03	.03	1.03	.30
3.b. Other-emotion appraisal (X) → proactive coping (M) → reduced personal accomplishment (Y) proactive coping × supervisor support	-.02	.06	-.30	.77
4.a. Use of emotion → proactive coping (M) → reduced personal accomplishment (Y) use of emotion × supervisor support	.05	.03	1.69	.09
4.b. Use of emotion (X) → proactive coping (M) → reduced personal accomplishment (Y) proactive coping × supervisor support	-.08	.06	-1.31	.19
5.a. Regulation of emotion (X) → proactive coping (M) → reduced personal accomplishment (Y) regulation of emotion × supervisor support	.03	.02	1.42	.21
5.b. Regulation of emotion (X) → proactive coping (M) → reduced personal accomplishment (Y) proactive coping × supervisor support	.00	.06	.06	.95
6.a. Overall EI (X) → proactive coping (M) → reduced personal accomplishment (Y) proactive coping × supervisor support	-.08	.06	-1.31	.19
6.b. Overall EI (X) → proactive coping (M) → burnout (Y) overall EI × supervisor support	.04	.04	.84	.40

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariates: work demands, teaching experience,  $\gamma$  = coefficient; X = predictor, M = mediator, Y = criterion.

Table 7

*Supervisor Support as a Moderator of the Relationship between Emotional Intelligence, Proactive Coping and Burnout*

	$\gamma$	SE	T	P
1.a. Overall EI (X) $\rightarrow$ proactive coping (M) $\rightarrow$ burnout (Y) overall EI $\times$ supervisor support	.04	.04	.84	.40
1.b. Overall EI (X) $\rightarrow$ proactive coping (M) $\rightarrow$ burnout (Y) proactive coping $\times$ supervisor support	.01	.07	.18	.86
2.a. Self-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ burnout (Y) self-emotion appraisal $\times$ supervisor support	.02	.03	.62	.53
2.b. Self-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ burnout (Y) proactive coping $\times$ supervisor support	.03	.06	.52	.61
3.a. Other-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ burnout (Y) other-emotion appraisal $\times$ supervisor support	.04	.03	1.38	.17
3.b. Other-emotion appraisal (X) $\rightarrow$ proactive coping (M) $\rightarrow$ burnout (Y) proactive coping $\times$ supervisor support	.02	.06	.35	.73
4.a. Use of emotion $\rightarrow$ proactive coping $\rightarrow$ burnout use of emotion $\times$ supervisor support	.05	.03	1.66	.10
4.b. Use of emotion $\rightarrow$ proactive coping $\rightarrow$ burnout proactive coping $\times$ supervisor support	-.02	.06	-.33	.74
5.a. Regulation of emotion $\rightarrow$ proactive coping $\rightarrow$ burnout regulation of emotion $\times$ supervisor support	-.03	.02	- 1.29	.20
5.b. Regulation of emotion $\rightarrow$ proactive coping $\rightarrow$ burnout proactive coping $\times$ supervisor support	.10	.06	1.69	.09

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariates: work demands, teaching experience,  $\gamma$  = coefficient; X = predictor, M = mediator, Y = criterion.

The Role of Job Satisfaction as a Mediator between Negative or Positive Affect and Burnout.

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### Abstract

This study focuses on the relationship between positive and negative affect, job satisfaction, and burnout. It investigates the role of job satisfaction as a mediator between either positive or negative affect and burnout. 300 teachers from 13 schools in Syria completed the questionnaire on positive and negative affect, job satisfaction, burnout, and work demands. Results indicated that positive affect was negatively associated with burnout but positively linked to job satisfaction, in contrast with negative affect, while job satisfaction related negatively to burnout. Mediation analyses revealed that job satisfaction mediated the link between either positive or negative affect and burnout. Suggestions for further research, as well as the implications of the current study, are also discussed.

*Keywords:* Positive affect, job satisfaction, teachers, burnout, bootstrap

### The Role of Job Satisfaction as a Mediator between Negative or Positive Affect and Burnout

Job satisfaction plays an important role in the teaching process. The teachers who are satisfied with their careers gave more support to their classes, especially for the classes with low abilities, in comparison with teachers who have a low level of job satisfaction (Opdenakker & Van Damme, 2006). They have a high sense of personal achievement and are less likely to burn out (George, Louw, & Badenhorst, 2008). Burnout could be considered as an outcome of circumstance. Maslach and Goldberg argued that “ Teachers are expected to achieve unrealistic goals of not only educating students but handling all their personal problems as well. In many professions, real wages have declined and job benefits have been cut back. These and numerous other examples highlight the fact that burnout is very much a product of situational context, even if it is expressed on an individual level” (Maslach & Goldberg, 1998, p.64 ).Negative or positive affect arises from working conditions, which either make people satisfied or dissatisfied with their work (Meeusen, Dam, Zundert, & Knape, 2010). Similarly, positive affect related positively to job satisfaction (Heller, Judge, & Watson, 2002). A recent study by Diefendorff and others (2011) pointed out that negative affect positively related to burnout, while positive affect was associated negatively with burnout (Diefendorff, Erickson, Grandey, & Dahling, 2011). Poor job satisfaction might lead to the emergence of burnout (Humbeek, Audenhove, & Declercq, 2004). Although both positive and negative affect were found to act as important predictors of job satisfaction and burnout, there is no study testing the extent to which job satisfaction may mediate such a relationship between either negative or positive affect and burnout.

### **Positive and Negative Affect**

Positive affect reflects “the extent to which a person feels enthusiastic, active, and alert. negative affect is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness” (Watson, Clark, & Tellegen, 1988, p.1063).

### **Job Satisfaction**

Job satisfaction is “simply how people feel about their job and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their job” (Spector, 1997, p.2).

## **Burnout**

Burnout is defined as “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion refers to feelings of being emotionally overextended and depleted of one’s emotional resources. Depersonalization refers to a negative, callous, or excessively detached response to other people, which often includes a loss of idealism. Reduced personal accomplishment refers to a decline in feelings of competence and productivity at work” (Maslach & Goldenberg, 1998, p.64).

### **Positive and Negative Affect in Relation to Burnout**

The relationship between negative affect and burnout was positive, in comparison with that of positive affect and burnout, which related negatively (Little, Simmons, & Nelson, 2007). Janssen, Lam and Huang (2010) asserted that a negative relationship was found to exist between positive affect and emotional exhaustion, while the latter related positively to negative affect (Janssen, Lam, & Huang, 2009). Another study by Önder and Sari (2009) also reported that positive affect associated negatively with burnout, while negative affect was positively linked to it (Önder & Sari, 2010).

### **Job Satisfaction and Burnout**

Job satisfaction may contribute to low levels of burnout. Agalitotis and Platisdou (2008) found that teachers who have high perceived satisfaction towards the job itself, the system’s organization as a whole, the school principal, and the prospects of promotion were significantly related to low levels of burnout (Agalitotis, & Platisdou, 2008). Ozyurt, Hayran and Sur (2006) noted that job satisfaction was associated negatively with both emotional exhaustion and depersonalization, while it associated positively with personal accomplishment (Ozyurt, Hayran, & Sur, 2006).

### **Positive and Negative Affect in Relation to Job Satisfaction**

Previous findings indicated that positive affect correlated positively with job satisfaction while negative affect was related negatively to it. Such as in the study carried out by Barsky, Thoresen, Warren and Kaplani (2004) who showed that negative affect was negatively related to job satisfaction (Barsky, Thoresen, Warren, & Kaplani, 2004). The same was showed by Fisher (2000) who suggested that negative affect was also related negatively to job satisfaction (Fisher, 2000). Meta-analysis conducted by Bowling, Hendricks and Wagner (2008) argued that negative affect was most strongly related to the measurement of

satisfaction with work itself, supervision and co-workers than was the case for positive affect with regards to both satisfaction with supervision and with co-workers. However, positive affect had a stronger relation to satisfaction with promotion than that of negative affect (Bowling, Hendricks, & Wagner, 2008).

### **Job Satisfaction as a Mediator**

There is little evidence in the relevant literature suggesting that job satisfaction could be considered as a mediator. Ngo and Mathies (2010) demonstrated that job satisfaction mediated the relationship between psychological climate perceptions (particularly service climate, team support and job security) and work outcomes (Ngo & Mathies, 2010). Kaplan, Bradley, Luchman and Haynes (2009) indicated that job satisfaction also mediated the relationship between negative affect and organizational citizenship behavior. However, it did not mediate the link between positive affect and task performance (Kaplan, Bradley, Luchman, & Haynes, 2009).

### **Hypotheses**

1. Negative affect is positively related to burnout.
2. Positive affect is negatively related to burnout.
3. Negative affect is negatively related to job satisfaction.
4. Positive affect is positively related to job satisfaction.
5. Job satisfaction is negatively associated with burnout.
6. Job satisfaction mediated the influence of positive affect on burnout.
7. Job satisfaction mediated the influence of negative affect on burnout

### **Method**

**Samples.** 300 volunteer Syrian teachers of whom 68.33% were female and 31.67% male. Teachers' ages varied from 23 to 59 years ( $M = 40.37$ ,  $SD = 7, 77$ ) and their teaching experience ranged from 1 to 36 years ( $M = 15.37$ ,  $SD = 7, 94$ ). 93% of these teachers had a graduate degree, whereas 7% had a diploma.

### **Measures.**

**Burnout.** Burnout was assessed with Maslach Burnout Inventory (MBI; Maslach, Jackson & Leiter, 1996). It was measured using 22 items that were rated on a 5-point scale (1 = *not at all*



*true*; 5 = *exactly true*). The three different aspects of burnout are: emotional exhaustion, depersonalization and reduced personal accomplishment. Nine items comprise emotional exhaustion, an example item is: "I feel exhausted at the end of the working day".

Depersonalization was estimated using five items such as "I have become more callous towards students since I took this job". Reduced personal accomplishment consists of eight items. A sample item: "I can easily create a relaxed atmosphere with my students". The internal consistencies of emotional exhaustion, depersonalization, reduced personal accomplishment and burnout were .90, .77, .85, and .89 respectively.

**Positive and negative affect.** Positive and negative affect were assessed using an adapted version of the positive and negative scale (PANAS; Watson, Clark & Tellegen, 1988). Each subscale consisted of a number of words, each describing different feelings and emotions experienced during the last year. Examples included words such as proud, strong and distressed. The answers ranged from *very slightly or not at all* to *a bit or extremely*. The internal consistencies for positive and negative affect were .76.

**Job satisfaction.** This was assessed using a job satisfaction survey (JSS; Spector, 1995). The three subscales were: satisfaction with co-workers, satisfaction with nature of work and satisfaction with communication. Each subscale has 4 items, which were rated on a 6-point scale (1 = *disagree very much*; 6 = *agree very much*). Cronbach's alpha of satisfaction with co-workers, satisfaction with nature of work, satisfaction with communication and overall job satisfaction were .62, .64, .67 and .74 respectively.

**Work demands.** It was measured by using an adaptive version of job demand (Jones, Fletcher, & Ibbetson, 1991). Responses on the 7 items range from: *strongly disagree* to *strongly agree*. Item as example: "Having a wide variety of tasks makes my job difficult". Cronbach's alpha coefficient was .79.

**Procedure.** We asked 400 teachers to participate in this study. 300 of them agreed, and then they received instructions for completing the questionnaire, and they were assured that the data would only be used for scientific purposes. They all filled out the questionnaire on positive and negative affect, burnout, job satisfaction, and work demands. They completed the questionnaire during the breaks and returned them on the same day. All instruments were translated by experts into Arabic and then translated back into the original language, in order to have similar meanings.

## Results

**Descriptive statistics.** The Kolmogorov-Simernov test showed that none of the variables in this research had a normal distribution. Descriptive statistics for the variables are presented in Table 1. None of the demographic variables were significantly associated with overall or dimensions of job satisfaction, with overall or dimensions of burnout, with either positive or negative affect, nor were they associated with work demands.

**Correlations among the variables.** A Spearman test was used to test the relationship between the variables. Table 2 shows the intercorrelations amongst them. Positive affect correlated negatively with overall or dimensions of burnout but positively with overall or dimensions of job satisfaction, while negative affect correlated positively with overall or dimensions of burnout and negatively with overall or dimensions of job satisfaction, except for the relationship between either negative affect and satisfaction with nature of work ( $r = .02$ ,  $p > .01$ ) and or negative affect and satisfaction with communication ( $r = -.11$ ,  $p > .01$ ). Overall or dimensions of job satisfaction were negatively related to both overall and dimensions of burnout.

## Mediation Analyses.

A Nonparametric bootstrap test was carried out in order to measure the potential mediating effect of job satisfaction on the relationship between either negative or positive affect and burnout (see Preacher, & Hayes, 2007). Work demands was entered as a covariance variable. The results are presented in Table 3.

Negative affect had no indirect effect on emotional exhaustion through satisfaction with co-workers ( $\gamma = .01$ ,  $p > .05$ , 95% CI [-.00, .03]). It had also no indirect influence on depersonalization through satisfaction with co-workers ( $\gamma = .02$ ,  $p > .05$ , 95% CI [.00, .04]).

The indirect effect of negative affect on the relationship between satisfaction with co-workers and reduced personal accomplishment was not significant ( $\gamma = .02$ ,  $p > .05$ , 95% CI [-.00, .04]).

The association between negative affect and burnout was not mediated by satisfaction with co-workers with an indirect effect ( $\gamma = .01$ ,  $p > .05$ , 95% CI [.00, .03]).

The link between negative affect and emotional exhaustion was not mediated by overall job satisfaction ( $\gamma = .00$ ,  $p > .05$ , 95% CI [-.00, .02]). The relationship between negative affect and depersonalization was partially mediated by overall job satisfaction ( $\gamma = .01$ ,  $p < .05$ , 95%

*CI* [-.01, .03]) and the direct effect became lower as satisfaction with co-workers was controlled ( $\gamma = .12, t = 3.65, p = .00$ ).

Overall job satisfaction mediated the association between negative affect and reduced personal accomplishment ( $\gamma = .01, p < .05, 95\% CI [-.01, .05]$ ), while the direct effect still remained significant after controlling the mediator ( $\gamma = 0.07, t = 2.19, p = .03$ ), indicating a partial mediation. The indirect effect of negative affect on the relationship between overall job satisfaction and burnout was ( $\gamma = .01, p < .05, 95\% CI [-.01, .03]$ ), while the direct effect declined once satisfaction with co-workers was controlled ( $\gamma = 0.07, t = 2.69, p = .01$ ), representing a partial mediation.

A positive affect demonstrated no significant indirect effect on emotional exhaustion through satisfaction with co-workers ( $\gamma = -.03, p > .05, 95\% CI [-.09, -.00]$ ). The association between positive affect and depersonalization was fully mediated by satisfaction with co-workers ( $\gamma = -.05, p < .05, 95\% CI [-.12, -.01]$ ), while the direct effect became insignificant after controlling satisfaction with co-workers ( $\gamma = -0.02, t = -0.39, p = .70$ ).

The direct impact of positive affect on reduced personal accomplishment through satisfaction with co-workers was ( $\gamma = -.05, p < .05, 95\% CI [-.11, -.01]$ ) and the direct effect still remained significant after controlling satisfaction with co-workers ( $\gamma = -.32, t = -5.51, p = .00$ ), which indicates a partial mediation. It had an indirect effect on burnout through satisfaction with co-workers ( $\gamma = -.04, p < .05, 95\% CI [-.09, -.01]$ ), while the direct effect diminished after controlling the mediator ( $\gamma = -.14, t = -2.81, p = .01$ ), which displays a partial mediation.

satisfaction with nature of work had a mediating effect on the association between positive affect and emotional exhaustion ( $\gamma = -.06, p < .05, 95\% CI [-.13, -.02]$ ), and the direct effect became insignificant following the control of satisfaction with co-workers as a mediator ( $\gamma = -0.02, t = -0.26, p = 0.79$ ), which means a full mediation. Satisfaction with nature of work mediated the relationship between positive affect and depersonalization ( $\gamma = -.06, p < .05, 95\% CI [-.13, -.02]$ ), while no significant direct effect occurred after controlling satisfaction with nature of work as a mediator ( $\gamma = -.02, t = -0.27, p = .79$ ), reflecting a full mediation. It had a mediating influence on the relationship between positive affect and reduced personal accomplishment ( $\gamma = -.10, p < .05, 95\% CI [-.18, -.04]$ ), and the direct effect was ( $\gamma = -.27, t = -4.72, p = .00$ ), which replicates a partial mediation.

The link between positive affect and burnout was partially mediated by satisfaction with nature of work ( $\gamma = -.07, p < .05, 95\% CI [-.14, -.03]$ ), while the direct effect became lower after controlling the mediator ( $\gamma = -.11, t = -2.18, p = .03$ ).

Satisfaction with communication did not mediate the relationship between positive affect and emotional exhaustion ( $\gamma = .00, p < .05, 95\% CI [-.02, .03]$ ). The relation between positive affect and depersonalization was not mediated by satisfaction with communication ( $\gamma = -.02, p > .05, 95\% CI [-.05, -.00]$ ). The link between positive affect and reduced personal accomplishment was not mediated by satisfaction with communication ( $\gamma = -.03, p > .05, 95\% CI [-.07, -.00]$ ). It had also no significant indirect effect on burnout through satisfaction with communication ( $\gamma = -.02, p > .05, 95\% CI [-.05, -.00]$ ). Overall job satisfaction did not mediate the influence of a positive affect on emotional exhaustion with an indirect effect ( $\gamma = -.03, p > .05, 95\% CI [-.09, .00]$ ). The indirect impact of positive affect on depersonalization through overall job satisfaction was ( $\gamma = -.07, p < .05, 95\% CI [-.14, -.03]$ ) and the direct effect became insignificant as overall job satisfaction was controlled ( $\gamma = -.01, t = -0.12, p = .91$ ), which signifies a full mediation.

The relationship between positive affect and reduced personal accomplishment was partially mediated by overall job satisfaction ( $\gamma = -.10, p < .05, 95\% CI [-.18, -.03]$ ) and the direct effect became lower after controlling overall job satisfaction as a mediator ( $\gamma = -.27, t = -4.85, p = .00$ ). Lastly, the indirect contribution of positive affect on burnout through overall job satisfaction was ( $\gamma = -.07, p < .05, 95\% CI [-.12, -.03]$ ), whereas the direct effect decreased after controlling the mediator ( $\gamma = -.12, t = -2.35, p = .02$ ), which reveals a partial mediation.

## Discussion

The purpose of this research was, firstly, to test the association between negative and positive affect, job satisfaction and burnout. Secondly, it was aimed at discovering whether job satisfaction would mediate the link between either positive or negative affect and burnout.

The analyses indicated that negative affect was related positively to overall or dimensions of burnout. The finding that negative affect was associated positively with burnout is consistent with the results of a meta-analysis (Alarcon, Eschleman, & Bowling, 2010). Positive affect was found to associate negatively with overall or dimensions of burnout. Similar results were found regarding the relationship between positive affect and reduced personal accomplishment (Brackett, Palomera, Kaja, Reyes, & Salovey, 2010). Significant correlation was only found between negative affect and satisfaction with co-workers and overall job

satisfaction. Positive affect was positively associated with overall or dimensions of job satisfaction. The positive link between positive affect and job satisfaction is in line with past work (Duffy & Lent, 2009). Overall or dimensions of job satisfaction was related negatively to overall or dimensions of burnout. This confirms the findings of existing research stating that job satisfaction related negatively to burnout (Baba & Jamal, 1997). Overall or dimensions of job satisfaction mediated the relationship between positive affect and overall or dimensions of burnout, apart from that performed by satisfaction with co-workers in the relationship between positive affect and emotional exhaustion, in addition to overall job satisfaction as a mediator between them. There was also no mediating role played by satisfaction with communication on positive affect-depersonalization relationship nor on positive affect-reduced personal accomplishment relationship and on the link between positive affect and burnout. Satisfaction with co-workers did not mediate the association between negative affect and overall or dimensions of burnout and the link between negative affect and emotional exhaustion was not mediated by job satisfaction.

It might be that teachers who have experienced a high positive affect are more like to engage in their jobs as they find teaching work interesting, despite the wide range of potential problems that can be encountered, where they face these issues and continue with their preferred careers, making them more satisfied, productive and creative, which protects them from burnout. Positive emotions make the teachers feel more energized and help them to work more effectively, which encourages them to work harder to improve their abilities and their experience. They become more satisfied with their jobs and are less likely to suffer from burnout.

### **Limitations and implications for further researches**

All the results reported here are based on self-reports. While self-reports provide important information, it may be subject to the influence of teachers. Future studies should include both self and objective reports from supervisors or other teachers in schools. No information about either the students, such as their relationships with the teachers, or about the schools was collected, which might influence the relationship between the variables used in this study. Lastly, the cross-sectional nature of our data makes no conclusion regarding causality. Thus, more longitudinal research is needed.

### **Conclusions**

This study highlighted the relationship between positive and negative affect, job satisfaction and burnout. It explained why some teachers who experience positive affect at work are more likely to be satisfied in their jobs. Hence, they are less likely to suffer from burnout, as opposed to those who have to endure negative affect. On the one hand, training programs might be helpful in buffering the role a negative affect plays in creating job dissatisfaction and, in turn, in developing burnout. On the other hand, it might also be possible that more support from the team could prove to be a useful way to protect the teachers from burnout. The schools should also improve the conditions of work to increase job satisfaction levels, which might help to prevent burnout.

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Table 1

*Descriptive Statistics*

	M	SD	$\alpha$
1. Age	42.71	6.95	
2. Teaching experience	15.37	7.94	
3. Negative affect	2.37	.89	.76
4. Positive affect	3.55	.47	.76
5. Satisfaction with co-workers	5.05	.97	.62
6. Satisfaction with nature of work	5.21	.92	.64
7. Satisfaction with communication	4.37	1.41	.67
8. Overall job satisfaction	4.82	.76	.74
9. Emotional exhaustion	1.98	.76	.90
10. Depersonalization	1.36	.54	.77
11. Reduced personal accomplishment	1.57	.52	.85
12. Burnout	1.69	.48	.89
13. Work demands	2.89	.80	.79

*Note.* Cronbach's alpha is reported for all scales except for demographic variables.

Table 2

*Correlations between Negative Affect, Positive Affect, Job Satisfaction, Burnout and Work Demands.*

	1	2	3	4	5	6	7	8	9	10	11
1. Negative affect	1	.16**	-.12*	.02	-.11	-.12*	.25**	.27**	.24**	.29**	.32**
2. Positive affect		1	.20**	.24**	.18**	.25**	-.15**	-.13*	-.32**	-.26**	-.07
3. Satisfaction with co-workers			1	.37**	.40**	.72**	-.23**	-.32**	-.30**	-.35**	-.21**
4. Satisfaction with nature of work				1	.19**	.56**	-.13*	-.17**	-.31**	-.28**	-.06
5. Satisfaction with communication					1	.84**	-.15**	-.20**	-.31**	-.25**	-.22**
6. Overall job satisfaction						1	-.21**	-.28**	-.35**	-.33**	-.22**
7. Emotional exhaustion							1	.49**	.30**	.89**	.48**
8. Depersonalization								1	.43**	.67**	.29**
9. Reduced personal accomplishment									1	.64**	.08
10. Burnout										1	.42**
11. Work demands											1

Note: \*\* $p < .01$ , two-tailed. \* $p < .05$ , two-tailed.

Table 3

*Results of Bootstrap Analyses on the Mediating Role of Job Satisfaction in the Relationship between Negative Affect and Burnout.*

Mediation model	$\gamma$	SE	BCa 95% CI	
			Lower	Upper
1. Negative affect(X) → satisfaction with co-workers (M) → emotional exhaustion (Y)	.01	.01	-.00	.03
2. Negative affect(X) → satisfaction with co-workers (M) → depersonalization (Y)	.02	.01	.00	.04
3. Negative affect(X) → satisfaction with co-workers (M) → reduced personal accomplishment (Y)	.02	.01	-.00	.04
4. Negative affect(X) → satisfaction with co-workers (M) → burnout(Y)	.01	.01	.00	.04
5. Negative affect(X) → overall job satisfaction (M) → emotional exhaustion (Y)	.00	.01	-.00	.02
6. Negative affect(X) → overall job satisfaction (M) → depersonalization (Y)	.01	.01	-.01	.03
7. Negative affect(X) → overall job satisfaction (M) → reduced personal accomplishment (Y)	.01	.01	-.01	.05
8. Negative affect(X) → overall job satisfaction (M) → burnout(Y)	.01	.01	-.01	.03

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariate: work demands,  $\gamma$  = indirect effect; X = predictor, M = mediator, Y = criterion.

Table 4:

*Results of Bootstrap Analyses on the Mediating Role of Job Satisfaction in the Relationship between Positive Affect and Burnout.*

Mediation model	$\gamma$	SE	BCa 95% CI	
			Lower	Upper
9. Positive affect(X) → satisfaction with co-workers (M) → emotional exhaustion (Y)	-.03	.02	-.09	-.00
10. Positive affect(X) → satisfaction with co-workers (M) → depersonalization (Y)	-.05	.03	-.12	-.01
11. Positive affect(X) → satisfaction with co-workers (M) → reduced personal accomplishment (Y)	-.05	.02	-.11	-.01
12. Positive affect(X) → satisfaction with co-workers (M) → burnout(Y)	-.04	.02	-.09	-.01
13. Positive affect(X) → satisfaction with nature of work (M) → emotional exhaustion (Y)	-.06	.03	-.13	-.02
14. Positive affect(X) → satisfaction with nature of work (M) → depersonalization (Y)	-.06	.03	-.13	-.02
15. Positive affect(X) → satisfaction with nature of work (M) → reduced personal accomplishment (Y)	-.10	.03	-.18	-.04
16. Positive affect(X) → satisfaction with nature of work (M) → burnout(Y)	-.07	.03	-.14	-.03
17. Positive affect(X) → satisfaction with communication (M) → emotional exhaustion (Y)	.00	.01	-.02	.03
18. Positive affect(X) → satisfaction with communication (M) → depersonalization (Y)	-.02	.01	-.05	-.00
19. Positive affect(X) → satisfaction with communication (M) → reduced personal accomplishment (Y)	-.03	.02	-.07	-.00
20. Positive affect(X) → satisfaction with communication (M) → burnout(Y)	-.02	.01	-.05	-.00
21. Positive affect(X) → overall job satisfaction (M) → emotional exhaustion (Y)	-.03	.02	-.09	-.00
22. Positive affect(X) → overall job satisfaction (M) → depersonalization (Y)	-.07	.03	-.14	-.03
23. Positive affect(X) → overall job satisfaction (M) → reduced personal accomplishment (Y)	-.10	.04	-.18	-.03
24. Positive affect(X) → overall job satisfaction (M) → burnout(Y)	-.06	.02	-.12	-.03

*Note.* BCa 95% CI = means bias corrected bootstrap confidence interval; 1,000 bootstrap resamples; covariate: work demands,  $\gamma$  = indirect effect; X = predictor, M = mediator, Y = criterion.

## Curriculum vitae

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## Footnotes

- <sup>1</sup> In the following, the global EI score is named “emotional intelligence” or “EI”.
- <sup>2</sup> In the following, the global burnout score is named “burnout”.
- <sup>3</sup> Because there were no significant correlations between other-emotion appraisal and both emotional exhaustion and depersonalization, we did not test those variables in multilevel models.