ABSTRACT: Burnout is a state of emotional, physical, and mental exhaustion. The personality trait is one of the major causes of burnout. Moreover, schemas as personality traits discussed in personality developmental psychology are very important in this regard. Therefore, in this study, we investigated the predictive effect of early maladaptive schemas and hardiness on burnout of first grade elementary school teachers. For this purpose, the study questionnaires were distributed to all of the first-grade elementary school teachers in Gonbad Kavous city, Iran (142 people) to collect data. At the end, 108 questionnaires were analyzed. The research instruments included demographic questionnaire, Burnout Scale, Kobasa’s Hardiness Scale – Short Form (1982) and Young’s maladaptive schema-short form (2005). According to results, there was a positive and significant relationship between three domains of early maladaptive schemas including impaired performance and autonomy, impaired limits and hyper vigilance/inhibition with burnout. Also, there was a significant inverse relationship between hardiness and burnout. According to the results of multiple regression analysis, the model of study explained the 50.9% of the variance of burnout with the predictive power of two domains of impaired performance and autonomy and hyper vigilance/inhibition. Therefore, we conclude that considering the high predictive power of these two domains, schema-based educational and therapeutic interventions can be effective in preventing or reducing teacher burnout.

Keywords: Early maladaptive schemas, hardiness, teacher burnout.

Introduction
Burnout is considered as an employee concern globally. In 2019, the World Health Organization (WHO) officially declared that burnout is an occupational phenomenon. It has been included in the eleventh revision of the International Classification of Diseases (ICD-11)(Organization, 2019). Job burnout including three components of fatigue, pessimism, and professional inefficiency, is defined as a response to successive psychological and social stresses(Maslach & Leiter, 2016). Burnout is a state of emotional, physical, and mental exhaustion caused by chronic stress, and is characterized by feelings of disgust, indifference and inability to perform daily job tasks(Colangelo, 2004). The term burnout is associated with a short discussion of psychological stress in the modern workplace and the potential health risks due to working conditions(Berger et al., 2012). The first component of burnout is emotional exhaustion, which indicates that the person feels emotionally worn-out and drained. The second component is about personal performance when there is reduced personal accomplishments related to doing the duties. And the third component is depersonalization that indicates the emotionless, pessimistic attitude towards service recipients(Vagni et al., 2020).
If organizations in the *global competitive environment* want to be modern and function according to environmental changes and be able to build a competitive advantage in this environment, they must specially consider the importance of human resources (*Arregle et al.*, 2016). Accordingly, the study conducted by *Meglang et al.* (2021) also demonstrated that employees who work under high pressure and in low flexible environment, experience burnout more than others.

At the individual level, adverse consequences due to burnout among employees include emotional exhaustion (*Kelly et al.*, 2019), and depression (*Bianchi & Schonfeld*, 2016). Similarly, teacher burnout is associated with diseases and absenteeism (*Roeser et al.*, 2013), reduced learning in classroom (*Jennings & Greenberg*, 2009), feeling unable to advance students' learning process, reluctance at work and lack of enthusiasm to meet student's expectations (*Annatagia & Kusrohmiah*, 2017; *Luken & Sammons*, 2016).

Certainly, the factors of dissatisfaction and reduced physical and mental strength of the human body would result in reduced performance and not achieving the goals of the organization. According to the results of studies on the burnout of teachers in Iran (*Haji Moradi et al.*, 2013; *Saberi et al.*, 2011; *Zareei et al.*, 2019), teacher burnout is a common stressor. Reports indicate that elementary school teachers experience higher levels of stress and burnout than teachers of other grades (*Annatagia & Kusrohmiah*, 2017).

In the field of mental health, the positive emotion and its related control skills are just as important as the negative emotion and its related control skills (*Yakın et al.*, 2019). Therefore, to understand the domains of mental health, we should consider the role of possible negative factors (such as early maladaptive schemas) as well as possible positive factors such as (psychological hardiness).

The personality schema is one of the factors that can affect the job role (*Thimm*, 2013). According to schema theory, early maladaptive schemas (EMS) are necessary components of a person's personality, are developed from the early periods of life, expend during a person's life and are more inefficient (*Yakın et al.*, 2019). Early maladaptive schemas in some people are developed because of specific genetic characteristics as well as lack of fulfillment of emotional needs during early childhood experiences (*Khadem et al.*, 2017).

Early maladaptive schemas include five main domains: the first domain is about rejection and disconnection and includes emotional deprivation, abandonment, mistrust-abuse, social isolation-alienation, weakness and shame, which are indicators of lack of feeling safe and satisfactory communication with others. The second domain which is related to impaired performance and autonomy, includes failure-shame, incompetence-dependence, vulnerability to illness, non-self-evolve, which includes the self- expectations and expectations from others to achieve independence and successful performance and belief in the fact that failure is inevitable. The third domain is about impaired limits, including the merit/ magnanimity and insufficient self-control which can emerge as defects in performance and individual limitations to achieve long-term goals. The fourth domain is the other-directedness domain that emerges in the form of assigning duties to others and concentrate too much attention to meeting the needs of others than oneself. The fifth domain is about hypervigilance
and inhibition domain which includes emotional restraint and standards based on strictness, which indicates the control of emotions and spontaneous actions and having strict standards of individuals (Thimm, 2013).

If teachers have misconceptions about their past as well as early maladaptive schemas, their burnout may increase (Haji Moradi et al., 2013). Early maladaptive schemas can mediate the relationship between personality and hardiness so they may be combined (Nemat Tavosi & Ebrahimi, 2018).

Hardiness (dispositional resilience) is a style of performance that differentiates the reaction of people who keep healthy in response to stress compared to people who have health problems due to stress (Vagni et al., 2020). Stubborn people have a higher feeling of vitality, more complete improved work commitment, higher ability to manage life changes and challenges in comparison to others (Bartone, 2006). These are the three characteristics that were named by Kobasa as commitment, management and challenge (Kobasa, 1979). Hardiness is a protective factor. It is also a mediating factor between stress and burnout and would prevent the symptoms of stress, burnout and side effects (Vagni et al., 2020).

Hardiness is defined as the quality of being determined to do what you want and refusing to do anything else even when you are under pressure (Shorey, 2003). It is one of the most important tools for neutralizing and resilience against stress (Kobasa, 1979; Vagni et al., 2020). Zakin et al. (2003) also demonstrated a relationship between hardiness with attachment styles and long-term psychological stress. Nasiri (2021) demonstrated that religious beliefs can affect resilience and mental toughness and it has high impact on psychological problems and mental health (Nasiri, 2021).

While there are several predictions regarding burnout, this paper examines different combinations of personality traits. The hardship is considered as a positive component in the structure of personality, and early maladaptive schemas inefficiently affect the way one thinks, feels, behaves and personality of the individual. Accordingly, in this study, we investigated the predictive relationship between early maladaptive schemas and hardiness, and burnout of first grade elementary school teachers in Gonbad Kavous city.

Material and Methods
The population of this study included all the first-grade elementary school teachers in Gonbad Kavous city (N=142). Then, due to the low sample size, the study questionnaire was distributed to all the first-grade elementary school teachers in Gonbad Kavous city. Nine people were absent when the questionnaires were distributed, 11 questionnaires were not returned and 14 questionnaires were incomplete. Finally, 108 questionnaires were analyzed. All participants answered the questionnaires voluntarily, without writing their names in order to keep their private information confidential. The mean working background of the participants was 16.62 years and their mean age range was 24 to 32 years old. In terms of education level, 33.8% of them had a diploma, 28.7% had a master's degree, 51.85% had a bachelor's degree and 11.11% of them had higher degrees. 86% of the participants were married and 13.89% of them were single.
**Instruments**

**Maslach Burnout Inventory (MBI):** Maslach Burnout Inventory (MBI) has been developed by Maslach and Jackson (Maslach & Jackson, 1981). It contains 22 questions that measure burnout rate in terms of three components of emotional fatigue, personal performance and depersonalization. The questionnaire is in a Likert scale ranging from 1 (very mild) to 7 (very high) (Vaghi et al., 2020). According to Maslash and Jackson (1981), the validity and reliability coefficients of the scale were 0.81 and 0.88, respectively (Azeem, 2010). In a study conducted by Zamini et al. (2011), the reliability of this questionnaire was measured using Cronbach's alpha as 0.76 for the whole questionnaire, 0.84 for the subscales of emotional fatigue, 0.63 for depersonalization, and 0.86 for individual performance. The Cronbach's alpha coefficient was also calculated by the researcher in this study as 0.81.

**Young Schema Questionnaire -Short Form (YSQ-SF):** Schema Questionnaire -Short Form (YSQ-SF) has been developed by Young (2003). It consists of 75 questions that measure 15 components of early maladaptive schemas including five domains of rejection and disconnection, impaired performance and autonomy, impaired limits, other-directedness domain and the hypervigilance and inhibition domain (Young et al., 2003). Questions are answered on a six-point Likert scale from "it is completely wrong about me" to "it is completely right about me" (Thimm, 2013). In this questionnaire, the higher the score, the higher the probability of maladaptive schema, and if the total score of each scale is higher than 25, the schema would be considered inefficient. According to Young (2003), concurrent validity and reliability of the questionnaire were 0.75 and 0.82, respectively (Young et al., 2003). This questionnaire was standardized in Iran by Abbasian and Fatehizadeh (2003) at the University of Isfahan. Its reliability was calculated using Cronbach's alpha method as 0.94. In this study, according to the results of reliability calculations of the researcher, Cronbach's alpha coefficients for the components of the early maladaptive schema of the rejection/disconnection domain, self-regulation and impaired performance, impaired limits, other-directedness domain, and hypervigilance and inhibition were, 0.76, 0.79, 0.78, 0.77 and 0.84, respectively.

**Kobasa's Hardiness Questionnaire-Short Form (HS-SF):** We used hardiness Questionnaire-Short Form, developed by Kobasa et al. (1982), to find out how much stubborn the person is. Cronbach's alpha coefficient of the questionnaire was calculated 0.86 by Kobasa et al. (1982). This scale includes challenge, commitment and management subtests. It is scored on a four-point Likert scale. In this study, Cronbach's alpha coefficient of the scale was calculated as 0.88 for hardiness.

**Results**

We used descriptive statistics including mean and standard deviation to collect, describe and organize the data. Multiple correlation and linear regression tests were used to analyze the data inferentially. The collected data were analyzed using 25Spss software.
The Predictive Effect of Early Maladaptive Schemas and Hardiness on Burnout of Elementary School Teachers

Table 1. Statistical indices of early maladaptive schemas, hardiness and burnout of subjects

<table>
<thead>
<tr>
<th>Domain</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Kurtosis</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection and disconnection</td>
<td>70.34</td>
<td>11.24</td>
<td>.104</td>
<td>-.835</td>
</tr>
<tr>
<td>Impaired performance and autonomy</td>
<td>58.75</td>
<td>12.05</td>
<td>-.049</td>
<td>-.467</td>
</tr>
<tr>
<td>Impaired limits</td>
<td>27.85</td>
<td>8.52</td>
<td>-.087</td>
<td>-.539</td>
</tr>
<tr>
<td>Other-directedness</td>
<td>27.24</td>
<td>7.93</td>
<td>.118</td>
<td>-.743</td>
</tr>
<tr>
<td>Hypervigilance and inhibition</td>
<td>27.40</td>
<td>6.82</td>
<td>.280</td>
<td>-.612</td>
</tr>
<tr>
<td>Hardiness</td>
<td>26.47</td>
<td>15.02</td>
<td>.366</td>
<td>-.674</td>
</tr>
<tr>
<td>Burnout</td>
<td>19.66</td>
<td>7.54</td>
<td>.030</td>
<td>-.572</td>
</tr>
</tbody>
</table>

Table 1 shows the values of mean and standard deviation, kurtosis and skewness of predictor variables (maladaptive schemes and hardiness) and criterion variable (burnout). Data kurtosis and skewness indicate that the distribution of variables is normal.

Table 2. Triangular correlation matrix of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Burnout</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Rejection and disconnection</td>
<td>-.046</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Impaired performance and autonomy</td>
<td>.64*</td>
<td>-.15</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Impaired limits</td>
<td>.27*</td>
<td>.04</td>
<td>.22*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other-directedness</td>
<td>-.05</td>
<td>-.14</td>
<td>.03</td>
<td>.04</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Hypervigilance and inhibition</td>
<td>.38*</td>
<td>.18</td>
<td>.08</td>
<td>.20</td>
<td>.04</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7. Hardiness</td>
<td>-.27*</td>
<td>.17</td>
<td>-.23</td>
<td>-.25*</td>
<td>.02</td>
<td>-.20</td>
<td>1</td>
</tr>
</tbody>
</table>

* p<.05, ** p<.01

According to Table 2, there is a positive and significant relationship (p <0.01) between impaired performance and autonomy domain and impaired limits domain, and hypervigilance and inhibition domain. There is a negative and significant relationship (p <0.01) between hardiness and burnout.

We used simultaneous multiple regression in order to examine the main hypothesis of the study. The regression can be used if the errors are independent and there is non-alignment. Durbin Watson test can be used to measure the independence rate of errors from each other. It was calculated as 1.89 in this study. If Durbin Watson test statistics is 1.5 to 2.5, there is no correlation between errors. There should be no correlation between independent variables (they should not have alignment). VIF is also an option to test this assumption. It was calculated as 1.180. Since it is lower than 10, therefore, there is no alignment. Additionally, tolerance indices were 0.90 and 0.80 in this model. Since it is not lower than 0.1, so the assumption of multiple alignments was also met.

Table 3. Model summary

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error</th>
<th>F</th>
<th>P</th>
<th>Durbin Watson test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection and disconnection + Impaired performance and autonomy + Impaired limits + Other-directedness + Hypervigilance and inhibition + Hardness</td>
<td>.73</td>
<td>.53</td>
<td>.51</td>
<td>5.28</td>
<td>19.50</td>
<td>.001</td>
<td>1.89</td>
</tr>
</tbody>
</table>
According to the results of the Table 3, (adjusted correlation square=0.509 f 6,101 = 50.19, p <0.0005), the regression is valid and the remaining variables in the regression can predict the criteria variable. This model explains 50.9% of the variance of teacher burnout.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-standard coefficients</th>
<th>Standard coefficients</th>
<th>T value</th>
<th>p</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed value</td>
<td>-9.01</td>
<td>-</td>
<td>-1.72</td>
<td>0.08</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>hardness</td>
<td>-.02</td>
<td>-.05</td>
<td>-.73</td>
<td>.46</td>
<td>.84</td>
<td>1.18</td>
</tr>
<tr>
<td>Rejection and disconnection</td>
<td>-.01</td>
<td>-.02</td>
<td>-.31</td>
<td>.75</td>
<td>.87</td>
<td>1.13</td>
</tr>
<tr>
<td>Impaired performance and autonomy</td>
<td>.37</td>
<td>.59</td>
<td>8.20</td>
<td>.001</td>
<td>.90</td>
<td>1.12</td>
</tr>
<tr>
<td>Impaired limits</td>
<td>.06</td>
<td>.07</td>
<td>.94</td>
<td>.35</td>
<td>.88</td>
<td>1.13</td>
</tr>
<tr>
<td>Other-directedness</td>
<td>-.08</td>
<td>.09</td>
<td>-1.35</td>
<td>.18</td>
<td>.97</td>
<td>1.03</td>
</tr>
<tr>
<td>Hypervigilance</td>
<td>.35</td>
<td>.32</td>
<td>4.43</td>
<td>.001</td>
<td>.88</td>
<td>1.13</td>
</tr>
</tbody>
</table>

According to the Table 4, early maladaptive schemas in the domains of impaired performance and autonomy and hypervigilance explained the variance of burnout more than others. Hardiness and other schematic domains were not significant predictors of burnout. This means that when the score of the domains of impaired performance and autonomy is increased by one standard deviation, the burnout score will increase by 0.58 the standard deviation. Also, when the domain of hypervigilance is increased by one standard deviation, the burnout score will increase 0.31 of the standard deviation.

**Discussion**

In this study, we investigated the predictive relationship between the variables of early maladaptive schemas and hardiness, and burnout of first-grade elementary school teachers. The study findings indicated that there was a positive and significant relationship between the three domains of schemas and burnout. There was also a negative and significant relationship between psychological hardiness and burnout. The findings are consistent with the results of the study by (Haji Moradi et al., 2013) which showed a significant relationship between maladaptive schemas and burnout in teachers. The results are also in line were consistent with the findings of the study conducted by Zareei et al. (2019) according to which there was a positive and significant relationship between most of the early maladaptive schemas and two subscales of burnout (emotional fatigue and depersonalization). Therefore, if scores of maladaptive schemas increase, burnout rate will also increase.

To explain the results of this study, it can be argued that the stubborn people that believe in managing and influencing life events or are committed to their activities and believe that changing is a key requirement for further development level, try to prevent burnout. This indicates that there is a negative relationship between the variable of hardiness and emotional fatigue. Accordingly, people that have more control power experience less job burnout. The results reported in the previous studies also indicated that there was a negative and significant relationship between these two
The Predictive Effect of Early Maladaptive Schemas and Hardiness on Burnout of Elementary School Teachers

variables (Srivastava & Dey, 2020). In supporting this finding, according to Vegani et al. (2020), resilience can help improve positive performance and prevent negative emotions, thoughts and behaviors, and increase life satisfaction and mental well-being in healthcare services staff and the general public (Vagni et al., 2020). This finding was consistent with the results of other studies (Azeem, 2010; Kazemi & Ziaaddini, 2014; Narimani & Abbasi, 2009).

Concerning the main purpose of the research, some of the findings about the predictive impact of schemas were consistent with schema theory because in the present study, despite the fact that two domains of the five domains of early maladaptive schemas in teachers were significant, 50% of their burnout was explained and this indicated the high predictive effect of the component of early maladaptive schemas on psychological hardiness. According to findings of regression analysis, impaired performance and autonomy can predict burnout. Employees who are burned out believe that they can no longer perform their duties specially their professional duties (Berger et al., 2012), and a person with impaired performance and autonomy believes that he cannot perform his duties without being helped by others. Such a person thinks that he is helpless, cannot achieve goals and will not become successful. Therefore, it leads to the idea of being a weak and incompetent person (Hawke & Provencher, 2011).

Moreover, according to the findings of the previous relevant studies, some schemas are the causes of job burnout, so that the vulnerability to harm schema (which is a component of impaired performance and autonomy) provides the most predictive rate of job incompatibility (Zareei et al., 2019).

To interpret this finding, we refer to several studies that have demonstrated that there is a relationship between early maladaptive schemas with a lot of psychiatric diagnoses and psychological problems (e.g., Broatch et al., 2004; Hawke & Provencher, 2011; Yousefi et al., 2018), less serious psychological problems, such as relationship problems or problems in the workplace (Young, 1990) and interpersonal problems (Thimm, 2013). In addition, according to the results of previous studies (Salmalian et al., 2020), the components of early maladaptive schemas are significantly related to social anxiety and academic failure components, namely fatigue, pessimism and academic inefficiency.

The results of the present study are consistent with those of some previous studies (Khorshidhian et al., 2017) indicating that only two domains of impaired performance and autonomy and hypervigilance and inhibition of the five domains of schemas maladaptive schemas can predict the aspects of burnout. According to schema therapy theory (Thimm, 2013; Young et al., 2003), vigilant people comply with inflexible rules and duties in many areas of life, including moral, cultural and work criteria. When performing daily tasks, they consider details unusually and underestimate their performance compared to the performance of others and cannot express their emotions due to perfectionism and fear of being rejected. According to Bamber and McMahhon (2008), the early maladaptive schemas in the workplace are recreated. In other words, according to Young's schema therapy model, people like the jobs that recall the sad experiences of their past periods of life.
On the other hand, maladaptive schemas as dysfunctional cognitive infrastructures contain cognitive, behavioral, and emotional components. When maladaptive schemas are activated, certain levels of negative emotions are developed and it would directly or indirectly leads to psychological distress such as job disability and interpersonal conflicts, psychological imbalance and psychosocial maladaptation (Renner et al., 2012). Accordingly, when an employee is in an undesirable situation at the cognitive level, these negative schemas are activated and the person experiences negative emotions whose reoccurrence can be the main reason of burnout.

According to the results, the domain of impaired performance and autonomy and hypervigilance and inhibition had a high predictive power in the model, which leads to burnout and reduced performance. Reduced performance includes low self-esteem, feelings of incompetence, career setback, and inability to perform duties (Khorshidian et al., 2017).

According to the findings, hardiness has a negative and significant relationship with burnout but it cannot predict the burnout variable. In order to explain this finding, we refer to the study by Srivastava and Dey (2020) demonstrating that there is a negative and significant relationship between the two variables, but emotional intelligence moderates the relationship between hardiness and burnout. This finding is inconsistent with the results of the study (Vagni et al., 2020) on the predictive effects of risk and protective factors on burnout using correlation analysis and multivariate regression. The findings of this study demonstrated that hardiness had a negative effect on the level of emergency stress and burnout components, namely emotional fatigue and personalization, but it had a positive effect on personal performance. This inconsistency can be explained by arguing that hardiness cannot function sustainably when there is a chronic job stress, therefore, it would lead to burnout.

In order to justify this finding, we argue that hardiness (including components of challenge, control, commitment) had a negative and significant relationship with burnout, but in combination with other variables, it could not predict burnout. Additionally, if a variable is related with the criterion variable but in combination with other variables does not have a high predictive power, it indicates that hardiness with the two domains of schemas (impaired performance and autonomy and hypervigilance/inhibition) with a high predictive power cannot predict more than them. One of the most important limitations of questionnaire-based research is that such studies can lead to false correlations. People who usually make themselves look good or bad by their self-expressions cause false correlations, and this research also suffered from this limitation.

The findings of this study can provide counselors with useful insights in terms of the importance of some domains of schema therapy. Moreover, in order to employ human resources with accurate recognition of these domains on the rate of burnout, the findings of this study can improve individual and organizational performance. Therefore, it is suggested that effective measures be taken for identifying and education as well as therapeutic interventions focused on these domains in order to prevent burnout in teachers.

**Conclusion:** Since teachers are responsible for teaching as well as improving students' personalities, according to the findings, it is clear that the existence of maladaptive schemas in teachers make them...
not enjoy their work and experience more mental problems and stress, which at the end, are turned into work stress and reduced organizational productivity. Therefore, according to the results of this study, we can have the therapeutic and educational interventions according to schemas with a focus on the two domains in order to prevent and reduce burnout and ultimately improve the job performance of teachers and human resources of other organizations.

**Conflict of interest:** The authors state no conflict of interest in the study.

**Financial sponsor:** The authors acknowledge that they have not received any financial support for all stages of the study, writing and publication of the paper.

**Acknowledgements:** We appreciate all the participants in the study as well as all those who helped us to conduct this research.

**References**


Bianchi, R., & Schonfeld, I. S. (2016). Burnout is associated with a depressive cognitive style. *Personality and Individual Differences, 100*, 1-5. [https://doi.org/10.1016/j.paid.2016.01.008](https://doi.org/10.1016/j.paid.2016.01.008)


