RELATIONSHIP BETWEEN JOB-RELATED TENSION, NEGATIVE AFFECT AT WORK AND ORGANIZATIONAL CULTURE

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Abstract

This study explores relationships between job-related tension, negative affect at work and organizational culture in educational organizations. It has been found that teaching staff assess job-related tension and negative affect at work higher than educational organization managers do. It also has been shown that power culture contributes to increasing tension in educational organizations, while person culture and task culture as well as the strength of organizational culture contribute to reducing tension and negative affect at work in educational organizations.

Keywords: educational organizations, job-related tension, negative affect at work, types of organizational culture, organizational culture strength.

Introduction

Studying job-related tension and negative affect at work in Ukrainian educational organizations is of great significance due to ongoing reforms aimed at introducing European standards. Moreover, these reforms take place in the conditions of the social and economic crises.

A number of researchers have emphasized high job-related tension and stress in teacher work (Collie & Martin, 2017; Helms-Lorenz & Maulana, 2016; Dugas, Stich, Harris, & Summers, 2020). Based on the Job Demands-Resources theory (Bakker & Demerouti, 2014) and their own findings, Skaalvik & Skaalvik (2018) have determined teacher job demands, which include time pressure (work overload), discipline problems, low student motivation, large student diversity, conflicts with colleagues, etc., as well as teacher job resources, which among others include a collective culture at school.

Organizational culture of education institutions has been intensely studied by western researchers. Thus, it has been analyzed in relation to the types of institutions, teaching staff’s
positions and specialties, educational institutions’ competitiveness, as well as institution managers’ roles and leadership styles, etc. (Aidla, & Wadi, 2007; Berkemeyer, Junker, Bos, & Muthing, 2015).

However, these studies, in our opinion, had several limitations. First, they were mainly management-oriented, rather than psychology-oriented. Second, these studies mainly analyzed the types of organizational culture and its administrative and organizational factors. Third, most studies on organizational culture types used the Organizational Culture Assessment Instrument (OCAI) (Cameron & Quinn, 2011) as the main instrument.

Our research has been based on Handy’s (1999) concept of organizational culture, which distinguishes four types of organizational culture: power, role, task, and person. In our view, this approach is quite justified in the context of educational organizations, as it is more of a humanistic paradigm.

We have considered the relationships between organizational culture and job-related tension and negative affect at work (Watson, Clark, & Tellegen, 1988; Terraciano, McCrae, & Costa, 2003), assuming that certain types of organizational culture as well as strong organizational cultures can influence these negative work aspects. Thus, the findings of our study can be used in developing an organizational culture that would greatly contribute to maintaining teaching staff’s mental health and supporting their well-being.

Moreover, job-related tension can affect other areas of staff life beyond the work area. A strong and positive organizational culture, creating the optimal conditions for work-life balance, can be reflected in staff’s quality of life and social welfare.

It should be noted that in other social spheres, organizational culture has been explored in the context of its relation to staff’s mental health in general (Dextras-Gauthier, Marchand, & Haines, 2012) and to occupational stress (Joiner, 2001) and bullying (Tambur & Vadi, 2012), etc.

In terms of psychology, organizational culture in educational and research organizations has been viewed in the context of its relationship with organizational performance, in particular, with organizational commitment (İpek, 2010; Yavuz, 2010), job satisfaction (Sabri, Ilyas, & Amjad, 2011), entrepreneurial intentions (Huyghe & Knockaert, 2015), etc.

However, the relationships between job-related tension and the negative affect at work and organizational culture in secondary education institutions remain poorly understood. Thus, the social significance of the problem and the lack of relevant in-depth studies have determined the subject of our study.

The object of the research: job-related tension and negative affect at work in relation to organizational culture of educational organizations.

The research aim: to analyze the relationship between job-related tension and negative affect at work in education institutions and organizational culture types and strength.

Methods of the research:
Job-Related Tension Index (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) to measure the index of job-related tension experienced by educational institution staff as symptoms of uncertainty or conflict.
Negative Affect at Work Scale (Watson et al., 1988), adapted and standardized by Maksymenko, Kokun, & Topolov (2011), to determine negative mental changes, which may be caused by a number of job-related factors.
Types of Organizational Culture (Handy, 1999) to identify four types of organizational culture in educational organizations (power culture, role culture, task culture, and person culture).
Evaluation of the Strength of Organizational Culture (Daft, 2001) to measure the power of organizational culture in educational organizations, which can be of high level (strong culture), medium level (moderate culture) and low level (weak culture).

The research data were processed using mathematical statistics (SPSS 22.0 for Windows): descriptive statistics (mean, std. deviation), Pearson correlation, independent samples T-test.

Participants of the research

The sample was made up of 187 respondents: 75 secondary school managers (principals, vice-principals, heads of departments, work group leaders) and 112 secondary school teachers. The sample included 161 females and 26 males aged 25 through 63 (M = 41.89, SD = 12.17). The respondents’ work experience within their current employment varied between 1 and 34 years (M = 9.73, SD = 9.42).

Results

The first stage of the study focused on determining the general level of job-related tension in educational organizations and its assessment by managers and teaching staff.

Table 1 shows the descriptive statistics of the job-related tension index (M = 2.27, SD = 0.68), which suggests according to the instrument that job-related tension in the educational organizations corresponds to the average level of tension in organizations.

Table 1. Job-related tension index and comparison of job-related tension indices in school managers and teaching staff

<table>
<thead>
<tr>
<th>Sample (n=187)</th>
<th>Comparison of averages using t test</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Managers (n=75)</td>
</tr>
<tr>
<td>Job-related tension index</td>
<td>2.27 0.68</td>
</tr>
</tbody>
</table>

This situation is most likely due to the high demands placed on the staff of educational organizations (regular changes in the content of education, constant use of new educational technologies, the need for continuous professional development, etc.) and the character of interactions in the person-to-person system (the need to fulfill positive attitudes towards interaction, a focus on the content of interaction, constructive feedback, etc.), etc. On the other hand, the high demands on teacher work in Ukraine cannot be met because of poor financing of the system of education, especially in the context of the ongoing military conflict in the east of the country and current economic crisis.

There were also differences found between managers and teaching staff in assessing job-related tension in educational organizations (p < 0.01): the average scores of job-related tension given by teaching staff were higher (M = 2.38, SD = 0.74) than those given by managers (M = 2.09, SD = 0.55). Most likely, these differences can be explained by the fact that secondary school teaching staff do a complex intellectual and emotional work, which requires great effort including out-of-school activities, as well as they directly interact with school students and their parents, usually without proper material and moral rewards and having a much lower status than the educational organization managers.
The second stage of the study dealt with descriptive statistics of the types and strengths of organizational culture of educational organizations, both as assessed by the total sample and by managers and teaching staff.

Thus, analysis of the obtained data shows (Table 2) that task culture has the highest score (M = 0.71, SD = 0.17). This type of organizational culture is characterized by the focus on a specific project or work, while meeting the interests of both staff and the organization. This culture maximizes the effectiveness of the organization by integrating the necessary resources and manpower and giving work-groups a free hand in carrying out job tasks.

Table 2. Comparison of organizational culture scores given by school managers and teaching staff

<table>
<thead>
<tr>
<th>Types and strength of organizational culture</th>
<th>Sample (n=187)</th>
<th>Comparison of averages using t test</th>
<th>Managers (n=75)</th>
<th>Teaching staff (n=112)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of organizational culture:</td>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Power culture</td>
<td>0.51</td>
<td>0.16</td>
<td>0.49</td>
<td>0.17</td>
<td>0.52</td>
<td>0.15</td>
</tr>
<tr>
<td>Role culture</td>
<td>0.66</td>
<td>0.15</td>
<td>0.62</td>
<td>0.15</td>
<td>0.68</td>
<td>0.14</td>
</tr>
<tr>
<td>Task culture</td>
<td>0.71</td>
<td>0.17</td>
<td>0.71</td>
<td>0.19</td>
<td>0.72</td>
<td>0.16</td>
</tr>
<tr>
<td>Person culture</td>
<td>0.64</td>
<td>0.15</td>
<td>0.64</td>
<td>0.16</td>
<td>0.64</td>
<td>0.14</td>
</tr>
<tr>
<td>Strength of organizational culture</td>
<td>44.48</td>
<td>9.42</td>
<td>45.08</td>
<td>9.78</td>
<td>44.48</td>
<td>8.43</td>
</tr>
</tbody>
</table>

Role culture was rated second (M = 0.66, SD = 0.15). It is characterized by a narrow specialization and high formalization, regulation and standardization of organizational units and their work.

Person culture was rated third in secondary education institutions (M = 0.64, SD = 0.15). Person culture promotes staff development and favors meeting their interests and needs. Power in the organization with this culture is distributed equally, while the power itself is based on the authority of skilled, and therefore respected, specialists.

Power culture was shown to be the lowest rated type found in secondary education organizations (M = 0.51, SD = 0.16). Power culture heavily relies on the organization’s management, who controls the most important organizational resources. This culture focuses on work results rather than on the means to achieve these results.

Based on our previous research (Karamushka, 2015) and the activities of educational organizations in the current conditions, it is reasonable to divide the above described types of organizational culture by their orientation into “progressive” and “conservative”. The “progressive” types of organizational culture, which are focused on bringing innovations to educational institutions, include task culture and person culture. The “conservative” types of organizational culture, which are oriented mainly toward traditional tasks, include role culture and power culture.

Accordingly, we can consider as positive the fact that task culture, being a positive one, is the most rated culture in educational institutions, while power culture, which is a conservative culture, is the lowest rated culture in educational institutions. However, the results of the study suggest that person culture has some potential for development.
As to the differences in educational organization managers’ and teaching staff’s assessments of different types of organizational culture (Table 2), the managers’ assessed task culture ($M = 0.71, SD = 0.19$) and person culture ($M = 0.64, SD = 0.16$) as the commonest, followed by role culture ($M = 0.62, SD = 0.15$) and power culture ($M = 0.49, SD = 0.17$). Unlike organization managers, in the teaching staff’s opinion, the commonest types of educational organization culture were task culture ($M = 0.72, SD = 0.16$) and role culture ($M = 0.68, SD = 0.14$), followed by person culture ($M = 0.64, SD = 0.14$) and power culture ($M = 0.52, SD = 0.15$).

Educational organization managers and teaching staff had statistically significant differences ($p < 0.01$) in assessing role culture (Table 2). This suggests that teaching staff, more than managers, identify their organizations’ culture as based on high formalization, standardization and control over their work. There were no differences between educational organization managers and teaching staff in their assessments of other types of organizational culture.

Regarding the strength of organizational culture, its average score ($M = 44.48, SD = 9.42$) corresponds to a moderate level of organizational culture, slightly below the level of a strong (or powerful) culture. There were no differences in the assessments of the strength of organizational culture given by educational organization managers and teaching staff.

According to the data available in the relevant literature (Daft, 2001; Steklova, 2010), organizations with a strong organizational culture are mainly focused on long-term rather than short-term objectives and their values emphasize the need for effective work, adjustment to the changing environment and staff’s professional development, as well as promote a harmonious balance of the organization’s and staff’s goals. Zabolotna (2010) believes that “strong” organizational cultures have strong managers and are characterized by intensity (a measure of commitment to basic organizational values) and consistency (a measure of employees’ recognition of the organization’s values).

Thus, the data obtained suggest that the organizational culture of educational organizations has some potential for adjusting to changes in the organizational environment, both external and internal, and for achieving the goals and meeting the interests of both the organization and individual staff members. Importantly, educational organization managers and teaching staff equally assess the strength of organizational culture.

At the third stage of the study we analyzed the relationship between managers’ and teaching staff’s assessments of job-related tension and the types and strength of organizational culture (Table 3).

**Table 3.** Job-related tension and types and strength of organizational culture in educational organizations

<table>
<thead>
<tr>
<th>Types and strength of organizational culture</th>
<th>Job-related tension</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample (n=187)</strong></td>
<td><strong>Managers (n=75)</strong></td>
</tr>
<tr>
<td>Types of organizational culture:</td>
<td></td>
</tr>
<tr>
<td>Power culture</td>
<td>0.060</td>
</tr>
<tr>
<td>Role culture</td>
<td>0.077</td>
</tr>
<tr>
<td>Task culture</td>
<td>-0.400***</td>
</tr>
<tr>
<td>Person culture</td>
<td>-0.268***</td>
</tr>
<tr>
<td>Strength of organizational culture</td>
<td>-0.283***</td>
</tr>
</tbody>
</table>

* – correlation is significant at the level $p < 0.05$; *** – $p < 0.001$
At this stage, we also revealed differences in the assessments made by managers and teaching staff (Table 3). Thus, a positive correlation ($p < 0.05$) was found between managers’ assessment of job-related tension and power culture. In other words, in the managers’ opinion, enhancing power culture increases job-related tension in educational organizations. At the same time, negative correlation ($p < 0.001$) was found between teachers’ assessment of job-related tension and task culture and person culture (Table 3).

The differences in educational organization managers’ and teaching staff’s assessments of job-related tension and types of organizational culture reveal, in our opinion, two aspects. The positive aspect is that the managers of educational organizations are aware of the role of power culture in increasing job-related tension. The negative aspect is that the managers of educational organizations, unlike the teaching staff, may underestimate the roles of task culture and person culture in reducing job-related tension.

Besides, there was an inverse statistically significant relationship ($p < 0.001$) between job-related tension and organizational culture strength (Table 3). In other words, as the strength of organizational culture increased, job-related tension decreased. In addition, managers and teaching staff equally assessed the role of organizational culture strength in reducing job-related tension (Table 3).

The fourth stage of the study dealt with the analysis of the respondents’ assessments of negative affect at work in the educational organization. First of all, we determined descriptive statistics of the negative affect at work as seen by the total sample (Table 4). Thus, the score of the negative affect at work ($M = 22.38, SD = 7.37$) was close to the normative score (Maksymenko et al., 2011), therefore, the level of negative affect at work in educational institutions corresponded to its average level in organizations. It should be noted that the strong correlation between the negative affect at work and job-related tension has been detected in the sample as a whole ($r = 0.753, p < 0.001$).

In addition, as can be seen from Table 4, there were statistically significant differences between the educational organization managers’ and teaching staff’s assessments of the negative affect at work ($p < 0.01$). In particular, the average teaching staff assessment scores of the negative affect at work were higher than those given by managers ($M = 23.79, SD = 7.51$ and $M = 20.24, SD = 6.75$, respectively). That is, for the reasons discussed above, teaching staff, in a greater extent than educational organization managers, experience negative mental states caused by the negative aspects of work.

<table>
<thead>
<tr>
<th>Sample (n=187)</th>
<th>Comparison of averages using t test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Managers (n=75)</td>
</tr>
<tr>
<td></td>
<td>$M$</td>
</tr>
<tr>
<td>Negative affect at work</td>
<td>22.38</td>
</tr>
</tbody>
</table>

The fifth stage of the study was dedicated to the analysis of the relationships between negative affect at work and the types and strength of organizational culture in educational organizations. Regarding the relationship between the respondents’ assessment of the negative affect at work and the types of organizational culture (Table 5), as in the case of job-related
tension, there was a statistically significant inverse relationship between the negative affect at work and task culture and person culture (p < 0.001). That is, task culture and person culture contribute to reducing the negative affect at work in educational organizations.

Table 5. School managers’ and teaching staff’s assessments of negative affect at work and types and strength of organizational culture

<table>
<thead>
<tr>
<th>Types of organizational culture</th>
<th>Negative affect at work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample (n=187)</td>
</tr>
<tr>
<td>Power culture</td>
<td>-0.039</td>
</tr>
<tr>
<td>Role culture</td>
<td>-0.071</td>
</tr>
<tr>
<td>Task culture</td>
<td>-0.446***</td>
</tr>
<tr>
<td>Person culture</td>
<td>-0.352***</td>
</tr>
<tr>
<td>Strength of organizational culture</td>
<td>-0.300***</td>
</tr>
</tbody>
</table>

**– correlation is significant at the level p < 0.01; *** – p < 0.001

As is seen in Table 5, there were negative associations (p < 0.001) between teachers’ assessment of negative affect at work and task culture and person culture. However, managers’ assessment of negative affect at work had a negative relationship (p < 0.001) only with task culture. This suggests that, unlike teaching staff, managers of educational organizations underestimate the role of person culture.

In addition, there was an inverse statistically significant relationship between assessed negative affect at work and the strength of organizational culture (p < 0.001). It suggests that in educational organizations with a strong organizational culture, the negative affect at work is much lower than in organizations with a weak culture. It should be noted that both educational organization managers and teaching staff similarly assessed the role of the strength of organizational culture: their assessment of negative affect at work negatively correlated with the strength of organizational culture (Table 5, p < 0.01), i.e. as the strength of organizational culture increased, the negative affect at work decreased.

Discussion

Our research found some problems in the work of educational organizations, in particular mid-level job-related tension and negative affect at work. Besides, it was found that the strength of organizational culture of educational organizations was at a moderate level, that is the culture was weak. This is in line with the studies conducted by other authors, who found psychological problems in educational institutions in a post-transformation society (Tambur & Vadi, 2012), high social frustration, personal and situational anxiety among teaching staff in conditions of social and economic instability (Zaika, 2017), as well as teaching staff work performance problems caused by job-related tension (Helms-Lorenz & Maulana, 2016).

We also found that educational organizations had different occurrence of organizational culture types. A positive research finding is the fact that task culture, being a progressive one, is the commonest culture in Ukrainian educational organizations, whereas power culture, a conservative one, is the least common culture. A negative finding is the fact that person culture, which best focuses on organizational values and objectives, is only the third commonest culture out of four. These findings are somewhat different from those obtained in
the study into organizational culture of Polish schools. According to Dorczak (2011), Polish teachers consider role culture as the commonest secondary school culture, followed by task culture, power culture and person culture. These differences may be due to social and cultural differences in Poland and Ukraine, greater regulation and specialization of professional activity in Western countries.

It has been proved that organizational culture is characterized by negative statistically significant relationships between job-related tension and negative affect at work and task culture, person culture and the strength of organizational culture. This is in line with the findings of a study on the role of work environment in staff performance and well-being (Žiedelis, 2020). These findings also support the conclusions of a number of researchers (Daft, 2001; Steklova, 2010) who believe that a strong organizational culture affects staff’s behavior and work performance as well as the organization as a whole.

We also found statistically significant differences between educational organization managers’ and teaching staff’s assessments of these organizational phenomena, which was supported by higher teachers’ than managers’ assessment of work tension and negative affect at work and greater teachers’ than managers’ preference of person culture, which can be explained by different professional roles played by teachers and managers in educational organizations. Educational organization managers’ preference of certain types of culture (in particular, clan culture) has been discussed in other studies (Kaufman, 2013).

It should be noted that our study had certain limitations. First, it was conducted in the central region of Ukraine, which suggests that in other regions the level of social tension in educational organizations may be different. Therefore, it would be advisable to carry out relevant studies in different regions of the country and compare the findings.

Secondly, we used only self-report tools. In the future, it would be good to combine subjective and objective measures in assessing job-related tension and negative affect at work, as well as the levels of different types of organizational culture in educational organizations.

The data obtained can be helpful in improving performance of educational organizations, in particular, in raising managers’ and teaching staff’s awareness of the role of progressive organizational cultures (person and task cultures) and the strength of organizational culture in reducing job-related tension and negative affect at work. Promising in this context is the development and validation of educators’ organizational culture-based training courses in preventing and overcoming job-related tension and negative affect at work.

Conclusions
We have found the following relationships between job-related tension and organizational culture: a) there are inverse statistically significant relationships between job-related tension and task culture, person culture and the strength of organizational culture in educational organizations, which implies that person culture, task culture and the strength of organizational culture contribute to reducing job-related tension in educational organizations; b) there are differences between educational organization managers’ and teaching staff’s assessments of relationships between job-related tension and certain types of organizational culture (managers view power culture as related to high job-related tension, but they, unlike teaching staff, underestimate the role of task culture and person culture in reducing job-related tension); c) role culture, as assessed by both managers and teaching staff, is not associated with job-related tension and negative affect at work; d) no differences have been found between managers and teaching staff in their assessments of the relationship between job-related tension and organizational culture strength.
We have also found the following relationships between negative affect at work and organizational culture indicators: a) task culture and person culture, as in a job-related tension, are associated with low negative affect at work; b) managers and teaching staff have similar assessments of relationships between task culture and negative affect at work, while managers, unlike teaching staff, do not link person culture to negative affect at work. c) increasing the strength of organizational culture reduces negative affect at work (in general).

References


RELATIONSHIP BETWEEN JOB-RELATED TENSION, NEGATIVE AFFECT AT WORK AND ORGANIZATIONAL CULTURE

Summary

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Studying job-related tension and negative affect at work in Ukrainian educational organizations is of great significance due to ongoing reforms aimed at introducing European standards. Moreover, these reforms take place in the conditions of the socio-economic crisis and military conflict in the east of Ukraine. This requires the search for psychological resources to reduce work tension and negative affect at work, one of which, according to the relevant literature, can be the organizational culture of educational organizations.
The study aimed to analyze the relationship between job-related tension and negative affect in work in educational organizations and organizational culture types and strength.

The study was carried out using such methods: Job-Related Tension Index (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) to measure the index of job-related tension experienced by educational institution staff as symptoms of uncertainty or conflict; Negative Affect at Work Scale (Watson et al., 1988), adapted and standardized by Maksymenko, Kokun, & Topolov (2011), to determine negative mental changes, which may be caused by a number of job-related factors; Types of Organizational Culture (Handy, 1999) to identify four types of organizational culture in educational organizations (power culture, role culture, task culture, and person culture); Evaluation of the Strength of Organizational Culture (Daft, 2001) to measure the power of organizational culture in educational organizations, which can be of high level (strong culture), medium level (moderate culture) and low level (weak culture). The sample was made up of 187 respondents: 75 secondary school managers (principals, vice-principals, heads of departments, work group leaders) and 112 secondary school teachers. The sample included 161 females and 26 males aged 25 through 63 (M = 41.89, SD = 12.17). The respondents’ work experience within their current employment varied between 1 and 34 years (M = 9.73, SD = 9.42).

The study found some problems in the work of educational organizations, in particular the presence of mid-level job-related tension and negative affect at work, with teachers’ assessment of job-related tension and negative affect at work being higher than managers’. Compared to a low rate of power culture and a high rate of task culture, person culture, which best meets the main goals of educational organizations, and strength of organizational culture, which ensures successful adaptation of organizations to internal and external changes and facilitates meeting the interests of the organization and staff, had an inadequately low rate. Teaching staff was shown to rate role culture, which was work regulation- and formalization-focused, higher than did educational organization managers.

Power culture increases job-related tension in educational organizations, whereas person culture and task culture as well as the strength of organizational culture contribute to reducing job-related tension and negative affect at work in education organizations. At the same time, role culture, as assessed by the education staff, has no effect on job-related tension and negative affect at work.

There are differences between educational organization managers’ and teaching staff’s assessments of the relationships between job-related tension and organizational culture types: power culture, as assessed by managers, is associated with high job-related tension in educational organizations, but, unlike teaching staff, they underestimate the roles of task culture and person culture in reducing job-related tension. Both educational organization managers and teaching staff agree that enhancing the organizational culture contributes to reducing the negative affect at work.

The obtained findings can be used by educational organization managers and psychologists to reduce job-related tension and negative affect at work as well as manage the development of different types and strengths of organizational culture as important educational organization performance improvement factors.

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