“Psychological factors of adaptation to remote work of inclusive education specialists”

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PSYCHOLOGICAL FACTORS OF ADAPTATION TO REMOTE WORK OF INCLUSIVE EDUCATION SPECIALISTS

Abstract

Due to the COVID-19 pandemic in Ukraine, almost every area of life has undergone global challenges and changes during the first lockdown, in March–May 2020. In particular, healthcare professionals faced the need to change their traditional activities of providing psychological assistance to children with special educational needs. Inclusive education has not been adapted to distance education in Ukraine. The aim of the study is to identify the impact of personality traits and the activity features on the use of remote educational tools by inclusive education specialists during quarantine. The study involved 50 professionals working with children with special educational needs. The surveyed professional included 26 psychologists, 13 speech therapists and 11 correctional educators. The survey was conducted online, covered six Ukrainian cities and was based on psychological questionnaires. The paper concludes that work effectiveness of healthcare specialists in remote form depends on the following personality traits: the level of tolerance for uncertainty and novelty, generosity, orientation toward the specialist's achievements; it also depends on the method of assistance and the children's nosologies. The paper provides three "psychological portraits" of specialists who find themselves in quarantine. Most of the specialists who participated in the study (more than 75%) expressed the opinion that remote learning was less effective than traditional education. Only applied behavior analysts believed that online corrective classes were good enough to use this form of activity in the future.

INTRODUCTION

The COVID-19 pandemic is a challenge not only for the healthcare system, but also for business, the education system, etc. In Ukraine, many specialists in various fields, especially in the healthcare system, which provides psychological assistance to children with special educational needs, are faced with the need to change their traditional activities. But many specialists were not ready to adapt to distance learning. Under these conditions, the study of psychological factors that allow some specialists to successfully adapt to online activities becomes relevant, while other specialists in the same field stop working. Another problem associated with the pandemic and quarantine was the complication of providing psychological assistance to children with special educational needs. Inclusive education, which had just begun in Ukraine, turned out to be not adapted to distance education. Determining and identifying the degree of influence of personal qualities, such as tolerance to uncertainty, the system of values, and psychological capital of inclusive education specialists for using distance learning tools and their work with children during quarantine or complete lockdown is one of the most important tasks in modern conditions.

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Keywords
COVID-19, Ukraine, tolerance for uncertainty, psychological capital, novelty, inclusion, working conditions

JEL Classification I21, J81, D83, M14
1. LITERATURE REVIEW

Since the beginning of 2020, research and understanding of the transformation process of education in connection with the pandemic, lockdowns, and the transition of education to a distance format have been carried out in the world. First of all, the attention of researchers was related to higher education, in particular medical education (Dost et al., 2020). Authors stated the fact that medical students and teachers experience difficulties in mastering knowledge in online learning. Murdock et al. (2020) studied this issue by holding the conference with the focus on learning through cases and named it the Virtual Morning Report (VMR), offering discussions to improve listeners’ clinical thinking skills. VMR was conducted on Zoom TM video conferencing platform. During VMR meetings, there were a pair of teaching doctors who were in a role of facilitators, several medical students and interns who volunteered to be “active participants”, as well as an unrestricted number of medical students, interns, researchers and lectors as “passive participants” who participated in discussions based on cases by texting to the Zoom chat.

MacIntyre et al. (2020) investigated the reaction of teachers of philologists to distance learning. The authors drew attention to stress responses and coping with stress in a sample that covered a lot of countries and more than 600 philologists teaching a foreign language. They participated in an online survey in April 2020. During the research, active response and avoidance were identified as two types for stressors and 14 coping strategies. Analysis of variance showed that coping avoidance rises with increasing stress, despite the fact that coping was regularly used in all stress groups.

Research was also conducted on the response of school educational systems to the challenges of quarantine. Thus, König et al. (2020) pay special attention to the role of computer technology. Regression analysis shows that information and communication technology (ICT) tools, in particular digital competencies for teachers and possibilities for pedagogical education for learning digital skills, play an important role in adjusting to online learning throughout remote home learning due to COVID-19.

However, online education is not only a problem for teachers and their teaching technologies, but it affects both students and parents. Ferdig et al. (2020) address the ethical and technological challenges of online learning in a diverse and comprehensive manner, describing innovate experience, strategies and achievements of teachers, professional developers, researchers and practitioners. The work is divided into seven units, which deal with pedagogy, partnership, practical experience, pre-education methods, professional development, digital tools and concerns of equal access to education for different groups of the population.

Pozas et al. (2021) conducted an extensive cross-cultural survey about opportunities and challenges of primary school pupils and their parents throughout the home study period in two countries, Mexico and Germany. Based on a qualitative approach, thirteen semi-structured interviews with parents and pupils were conducted. Qualitative content analysis showed that parents from these countries face difficulties in organizing home schooling and motivating their children. Even so, the time they spend together increases. German and Mexican primary school pupils were seriously concerned about the loss of social contacts.

Bayrakdar and Guveli (2020) examined the problems of inclusive education and equitable access to distance learning technologies. They describe the work of a social program in which the authors found children who received free school meals, children from low-income families and families with one parent, as well as children of Pakistani or Bangladeshi origin who paid cardinally less attention and spent less time doing school tasks while they were studying at home. Offline and online remote learning and homework checking for these categories of children, provided by schools, fundamentally enlarge the time children stood at home and alleviate many shortcomings.

Analyzing the development of tolerance in a historical context, Maksimova (2020) believes that tolerance is not so much a quality, a personality trait, as its state, which is being realized here and now. Tolerance involves the rejection of one’s own views, value orientations and ideals; it should not be reduced to indifference, conformism, or rejec-
tion of one’s own interests. On the one hand, it provides sustainability as a person’s ability to realize their personal positions, and on the other hand, flexibility as the ability to respect other people’s positions and values. Summing up the definitions of tolerance of different authors, Ilyinskaya (2008) identifies five levels of tolerance, namely civilizational, international, ethnic, social, individual.

Holubovych (2012) pays particular attention to tolerance towards migrants and ethnic minorities. Tolerance in this case acts as public morality. But in the practice of involving children with special needs in the educational process of a comprehensive school, it causes complications and even problems that affect the quality of education. English-language publications (Wiggins, 1988; Andrews, 2000; Hobfoll, 2002) draw active attention to the problems of tolerance, political correctness, and communication patterns in inclusive communities, but insufficient attention is paid to the psychological factors of tolerance and the psychological aspects of coexistence within inclusive communities. A separate aspect of tolerance is tolerance for uncertainty: how easy it is for a person to accept the presence of novelty, unpredictability and complexity of life. It is this parameter, combined with tolerance for children with special educational needs, that can influence the transition to distance work.

Considering psychological capital and productivity, people with higher psychological capital are easier to attract to the achievement of the goal due to more resources (Hobfoll, 2020) and, therefore, they are more productive compared to people with low psychological capital (Luthans et al., 2007; Luthans et al., 2008). The conclusions of the analysis and empirical studies of Avey and Reichard (2010) admit this opinion. For example, Luthans et al. (2007) proved that psychological capital is positively associated with doing work on an individual level, and it accounts for higher levels of productivity. Similarly, other researchers (Avey et al., 2010) studied a positive relationship between psychological capital and rank of managers’ productivity in the financial sphere. Peterson et al. (2011) found that an employee’s psychological capital has a positive connection with performance ranking and financial productivity based on personal sales indicators. High rates of interconnection between psychological capital and job efficacy were confirmed by the studies conducted in other cultures such as China and Portugal (Rego et al., 2010) and Vietnam (Nguyen & Nguyen, 2012). It was also found that psychological capital affects creative work, solution of problems and novelty at the personal level. For example, Sweetman et al. (2010) and Rego et al. (2010) showed that psychological capital positively connects with creative work, and Luthans et al. (2013) demonstrated that psychological capital is positive about solving productivity and innovation problems.

2. AIMS AND HYPOTHESES

The study aims to reveal the influence of personality traits (tolerance to uncertainty, psychological capital and value system) and the activity features on the use of distance tools by inclusive education specialists in COVID-19 conditions.

Based on the arguments presented in the literature review and the aim of the study, the hypotheses of the study are as follows:

- **H01**: The transition to a distance form of giving help is determined by the method of giving help.
- **H02**: The transition to a distance form depends on the nosologies that affected children requiring the help of specialists.
- **H03**: The transition to a distance form depends on the personality characteristics of specialists (including their beliefs and tolerance for uncertainty).
- **H04**: The distance form of providing corrective care depletes specialists more than the usual form of work.

3. METHODS

The study involved 50 specialists working with children with special educational needs. Among the examined were 26 psychologists, 13 speech therapists, and 11 correctional educators. All respondents worked as private entrepreneurs. In quarantine, the average number of children with
whom they worked per day was 5-6 people. They worked mainly individually, in private offices, eight people also conducted classes in small groups. The survey was conducted three times on April 1 (19 days after the official start of quarantine in educational institutions of Ukraine), May 1 and July 14 (10 days after the official weakening of quarantine measures). The survey was conducted online and covered cities such as Kyiv, Kharkiv, Odesa, Zaporizhzhia, Sumy, and Kryvyi Rih.

Standard questionnaires were used: “Psychological capital”, “Tolerance to uncertainty”, “Schwartz’s value orientations”, as well as a form regarding the organization of work with children. In the first study, all of the above methods were applied; in the second and third there were only psychological capital and questionnaire. This is due to the fact that value orientations and tolerance to uncertainty are components of the personality’s deep core, and they do not change for several weeks, while the organization of labor and psychological capital can vary depending on external factors.

4. RESULTS

The study participants had different attitudes towards distance learning and remedial activities during quarantine. The results are shown in Table 1.

According to the G-criterion for bias \( p \leq 0.01 \) (critical value 18, empirical – 12), there was a significant increase in those specialists who started classes remotely, but specialists at the level of \( p \leq 0.01 \) considered classes not effective enough.

Among the respondents there were specialists who used different approaches to correction: skills training (24 speech therapists and correctional teachers), 16 neuro-correction specialists, and 10 ABA therapists (Aba therapy is applied behavioral analysis and one of the areas of behavioral analysis). With ABA therapists, 8 of them immediately went to work in remote mode, two more began practicing in this mode after a month of quarantine. Speech therapists and correctional teachers began work a little later: 4 people at once, 16 more joined later and at the 2nd stage of the study, 20 of these specialists worked remotely. Neuro-correction specialists reacted rather negatively at first, and only 6 of them started classes, but 2 more joined them later, while 8 neuro-correction specialists and 4 speech therapists considered distance learning impossible during the whole quarantine. Thus, it leads to accepting hypothesis \( H_01 \).

In total, 213 children with various nosologies received services from the respondents. Of these, 133 received correctional services at the time of the second and third studies. Distributions depending on nosologies are given in Table 2.

Thus, it becomes noticeable that almost all children (85%) with mental retardation participated in distance learning sessions with specialists, while such a service was provided to only half among children with autism spectrum disorders and hyperactivity. Accordingly, hypothesis \( H_02 \) is supported.

A study of personality factors was carried out at the beginning of quarantine. A correlation analy-

Table 1. Specialists’ attitudes towards distance education (the number of people who gave a positive answer)

<table>
<thead>
<tr>
<th>Answer</th>
<th>First study</th>
<th>Second study</th>
<th>Third study</th>
</tr>
</thead>
<tbody>
<tr>
<td>I work with children remotely</td>
<td>18</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>I consider distance learning effective</td>
<td>8</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>I will apply distance learning after quarantine is completed</td>
<td>3</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>I will teach only in real life</td>
<td>32</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 2. Online assistance based on nosology

<table>
<thead>
<tr>
<th>Types of disorders</th>
<th>Autism spectrum disorder</th>
<th>Attention deficit hyperactivity disorder</th>
<th>Speech retardation</th>
<th>Impaired mental function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>61</td>
<td>39</td>
<td>72</td>
<td>41</td>
</tr>
<tr>
<td>Engaged online</td>
<td>32 (52%)</td>
<td>20 (51%)</td>
<td>46 (64%)</td>
<td>35 (85%)</td>
</tr>
</tbody>
</table>
sis was carried out according to the Spearman criterion between the desire to engage with children remotely and the actual number of hours of online correction per week (according to the results of the second study) and the value system according to the Schwartz questionnaire. The results are shown in Table 3.

**Table 3.** The relationship between the values of the personality of employees and the willingness to move to remote work organization

<table>
<thead>
<tr>
<th>Values</th>
<th>Readiness for remote work</th>
<th>The actual number of hours of remote work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformity</td>
<td>0.351</td>
<td>0.122</td>
</tr>
<tr>
<td>Traditions</td>
<td>-0.543**</td>
<td>-0.676**</td>
</tr>
<tr>
<td>Generosity</td>
<td>0.488*</td>
<td>0.523**</td>
</tr>
<tr>
<td>Universalism</td>
<td>0.132</td>
<td>-0.142</td>
</tr>
<tr>
<td>Independence</td>
<td>0.322*</td>
<td>0.212</td>
</tr>
<tr>
<td>Stimulation</td>
<td>0.213</td>
<td>0.352*</td>
</tr>
<tr>
<td>Hedonism</td>
<td>-0.412*</td>
<td>-0.486*</td>
</tr>
<tr>
<td>Achievements</td>
<td>0.532**</td>
<td>0.346</td>
</tr>
<tr>
<td>Power</td>
<td>-0.478*</td>
<td>-0.231</td>
</tr>
<tr>
<td>Safety</td>
<td>-0.627**</td>
<td>-0.126</td>
</tr>
</tbody>
</table>

Note: * $P \leq 0.05$, ** $P \leq 0.01$.

Thus, a fairly close relationship between the system of beliefs and values and the readiness to switch to a remote form of organization of activity is noticed. The value of traditions, hedonism, power and safety significantly hindered the desire to reorganize their activities. But the desire for power and safety did not affect the real activities of online professionals. Orientation to generosity, independence and achievements contributed to the motivation to switch to a remote form of work, the motivation for generosity, stimulation and achievement positively influenced the actual number of hours.

There are discrepancies between the declaration of readiness for distance learning and real readiness for its organization.

A study of the relationship between tolerance for uncertainty and readiness to go online showed the following results:
- tolerance to novelty positively affects both readiness (correlation coefficient 0.587) and real online activity (0.564);
- tolerance for complexity does not have a significant impact on readiness (correlation coefficient 0.238), but has a significant positive effect on real online activities (0.485);
- tolerance to uncertainty affects readiness (correlation coefficient 0.412), but has a significant positive effect on real online activities (0.535).

The following assumption concerned the dynamics of the psycho-emotional state of specialists with the introduction of distance learning. To answer these questions, three groups of workers were identified: 1) those who immediately started working online and will continue working in the future (18 people), 2) those who switched to working online between the first and second testing (20 people), and 3) those who did not work online during quarantine. Thus, it leads to accepting hypothesis $H03$.

**Table 4.** The dynamics of indicators of psychological capital during the quarantine period

<table>
<thead>
<tr>
<th>Dates</th>
<th>Hope</th>
<th>Optimism</th>
<th>Self-efficacy</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1</td>
<td>26.05</td>
<td>28.87</td>
<td>22.76</td>
<td>25.43</td>
</tr>
<tr>
<td>May 1</td>
<td>27.78</td>
<td>30.69</td>
<td>25.43</td>
<td>31.23</td>
</tr>
<tr>
<td>June 14</td>
<td>21.33</td>
<td>23.41</td>
<td>21.19</td>
<td>24.42</td>
</tr>
<tr>
<td>April 1</td>
<td>20.19</td>
<td>20.73</td>
<td>20.19</td>
<td>21.07</td>
</tr>
<tr>
<td>May 1</td>
<td>19.67</td>
<td>18.83</td>
<td>19.67</td>
<td>21.19</td>
</tr>
<tr>
<td>June 14</td>
<td>29.08</td>
<td>22.05</td>
<td>29.08</td>
<td>31.56</td>
</tr>
<tr>
<td>1 group</td>
<td>32.19</td>
<td>19.82</td>
<td>32.19</td>
<td>32.19</td>
</tr>
<tr>
<td>2 group</td>
<td>28.95</td>
<td>32.15</td>
<td>28.95</td>
<td>32.15</td>
</tr>
<tr>
<td>3 group</td>
<td>14.79</td>
<td>13.22</td>
<td>14.79</td>
<td>19.82</td>
</tr>
</tbody>
</table>
In almost all groups, indicators of psychological capital became worse within 2.5 months of quarantine. Representatives of the second group felt an improvement in organizing their activities online, but soon they also felt worse.

5. DISCUSSION

Summarizing the obtained data, three “psychological portraits” of specialists who find themselves in quarantine were created. Specialists with a high level of hope, optimism and resilience, focused on helping people and their own achievements, did not have a psychological barrier to moving online. They agreed with the parents of their clients, duplicated manuals and equipment, and switched to remote work with those children whose mental development was suitable for such work.

The second group included specialists who at first were too optimistic in hoping for a quick restoration of the normal organization of labor, they were more eager for power, control, and the performance of their work at the highest level. When they were convinced that quarantine was for a long time, they rebuilt the structure of their classes and also switched to remote work.

The third group consisted of specialists who both for objective reasons (the need for special equipment) and subjectively interrupted their work during strict quarantine restrictions. They were oriented towards tradition, hedonism, power and safety. Therefore, distance learning was perceived negatively: it is unconventional, requires more effort, it is more difficult to control, which causes a feeling of anxiety. These specialists, on average, had lower psychological capital rates.

Despite the organization and adaptation to distance learning, most specialists considered it less effective than the traditional organization of activities and would return to the usual form of conducting classes, as soon as this became possible under adaptive quarantine. Only a few of those surveyed believe that online corrective classes are successful enough and intend to use them in the future (all of them are specialists in ABA correction). Thus, this leads to the acceptance of the null hypothesis $H_04$.

CONCLUSION

The purpose of the study is to investigate the special features of inclusive education specialists who were forced to work remotely at the beginning of quarantine due to the COVID-19 pandemic in Ukraine. The results showed that the transition to remote assistance depends in part on the method of assistance. It is easier for ABA therapists and worse for neurocorrection specialists. The transition to the remote form also depends on the children’s nosologies. It is easier to organize and conduct online classes with children with mental retardation than with children with attention or communication disabilities. The transition to the remote form is easier for those specialists who have a high tolerance for uncertainty and novelty, generosity, and achievement orientation. The results showed that the distance form of providing corrective assistance depletes specialists more than the usual form of work. The results obtained indicate the importance and significance of studying the features of remote work of healthcare professionals in order to improve the quality and conditions of their work, as well as the quality of the services they provide. This is especially important for specialists working with children with special needs. The prospect of the research is to study the factors affecting the effectiveness of remote work of specialists from other healthcare profiles and fields, as well as to study the factors affecting the adaptability to the limitations and new opportunities arising in connection with the pandemic.

AUTHOR CONTRIBUTIONS

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Supervision: Iuliia Romanova.
Validation: Iuliia Romanova.
Visualization: Nataliia Rubel.
Writing – original draft: Olha Drobot, Iuliia Romanova.
Writing – review & editing: Andrii Trofimov, Kateryna Miliutina.

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