FUNDAMENTAL ASSUMPTIONS AS PREDICTORS OF PSYCHOLOGICAL HARDINESS OF STUDENTS WITH DISABILITIES

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Abstract
The article describes the psychological study determining the factors that support fundamental assumptions of students with disabilities. We have determined correlations between psychological hardiness of students with disabilities and their system of fundamental assumptions; beliefs in the benevolence of the surrounding world and people, in the meaningfulness of some events, in a chance to build successfully one’s own life and in one’s own luck have a significant influence on psychological hardiness. The predictors of psychological hardiness of students with disabilities are: positive interactions with the outside world; self-acceptance as a conscious acceptance of various aspects of one’s own personality; personal autonomy, which allows an individual to independently determine their own behaviour, assess adequately their capabilities and resist external influences.

Keywords: fundamental assumptions, psychological hardiness, self-acceptance, positive self-attitude, self-efficacy, personal autonomy, students with disabilities.

Introduction
Everyone in their life faces challenges, experiences some difficult moments, crises and overcomes them in different ways. Some people, overcoming crisis situations, become more stout-hearted, wiser, they integrate an acquired experience into their own cognitive structures, analyze and use it; other people become disappointed in their own strength, they take the role of a victim, lose the purpose and meaning of life. This is especially true for people with chronic somatic diseases and disabilities, who face challenges every day.
Education in the integrated groups for students with disabilities is a particularly difficult challenge, as such students accept this challenge “on an equal footing”, but they face a shortage of their own resources. This challenge requires them to use much more efforts and resources in comparison with people unburdened with chronic diseases; thus, self-development and self-realization of students with disabilities can be restrained.

Researchers working within the humanistic and positive approaches focus on an individual’s functioning in adverse developmental conditions (which include the situation of a disability) with the aim to identify the personal characteristics that allow an individual to exist positively, to achieve self-realization and psychological well-being (Maddi, 2013; Seligman & Scikszenmihalyi, 2000; Wehmeyer, 2013). The performed studies indicated that psychological hardiness played the key role in successful coping with daily problematic, stressful situations appeared during learning or work, because developed psychological hardiness helped overcome such situations, by actualizing personal capabilities important in adverse developmental conditions (Maddi et al., 2010).

The concept of “hardiness”, introduced by Maddi in line with the existential psychology, is defined as a basic characteristic of a personality, the system of an individual’s attitudes and beliefs that mediate the impact of adverse life situations (from somatic diseases to social problems) on human consciousness and behaviour (Maddi, 2013).

Psychological studies determine various factors mediating an individual’s psychological hardiness: personal autonomy (Ryan & Deci, 2017); meaningful life (Ryff & Singer, 1998); self-efficacy (Bandura, 1997; Schwarzer & Jerusalem, 1995); locus of control (Jomehri et al., 2009); optimism and positive mood (Mahdian & Ghaffari, 2016); hope for the future (Najmeh, 2020).

An important factor for psychological hardiness is an individual’s fundamental assumptions (Janoff-Bulman, 1992), which are the basis of his/her picture of the world, they are included in the acts of internal human choice, consequently, they are the basis for self-determination, purposefulness and self-development. These fundamental assumptions, as a unit of worldview, are a criterion for value choices (motives, goals, actions) made by an individual in different life circumstances and a base for certain personal meanings.

The concept of “fundamental assumptions” is used in cognitive personology to denote the meaning elements of an individual’s experience, which are the base of his/her behaviour and activities. Often “fundamental assumptions” are used as a synonym for “automatic thoughts” (Beck, 2002), “cognitive schemes” (Young et al., 2003), “personal construct” (Kelly, 2000), “commitment” (Ellis, 2002).

Janoff-Bulman (1992) studied the most deeply an individual’s fundamental assumptions in the framework of the “theory of shattered assumptions”, according to which an individual needs a system of stable positive perceptions of the world around him/her to predict events, to make decisions, to feel stability, to build strategies of interaction with the world and oneself.

According to Janoff-Bulman (1992), an individual’s system of positive assumptions-beliefs is the result of the care, acceptance and love that children receive during first years of life. This system is quite stable; it is not changed at everyday life and in simple life situations. However, in a traumatic situation, some life challenges, when an individual is faced with new information that is dissonant with the existing system of positive assumptions and must be integrated into his/her life, this system can be changed dramatically. Such changes in existing fundamental assumptions are an important aspect of any post-traumatic stress. Fundamental assumptions are restored or transformed at overcoming of a trauma, negative life events.
The fundamental assumptions include eight implicit ideas about: benevolence of the world around an individual; benevolence of people around; fair distribution of life events (negative/positive); controllability of events and their results; eventuality, as a chance, a hope to success; ideas on self (self-esteem, self-value); self-control; luck.

These ideas form three categories of fundamental assumptions (Janoff-Bulman, 1992):

1. The benevolence of the surrounding world is expressed in “positive-negative” terms and applies to both the surrounding world and people in general. In the structure of this assumption, the author identifies two indicators: “benevolence of the world as an entity” and “the benevolence of people in that world”. According to the author, people are mostly convinced that: first, the world around them is a decent place to live, and failures are quite rare; secondly, most of the people around are good, decent people who come to their aid if necessary.

2. The meaningfulness of the surrounding world includes the belief in the justice of the world around and reflects an individual’s views on distribution of fair or wrong outcomes: events in human life occur basing on the principle of justice; it is a basic belief in an individual’s ability to control outcomes of their acts, which reflect the individual’s confidence that he/she controls and manages life events, as well as that there is a certain pattern and special meanings for events that occur with him/her.

3. An individual’s self-worthiness includes: self-esteem (the idea on oneself as a good person worthy of respect, love and acceptance); self-control (the belief that an individual is able to control their own states and behaviour, to make benefits from occurring events) and luck, which in the author’s opinion is associated with self-esteem (the belief that even if an individual cannot control events, he/she considers himself/herself happy and lucky, and, thus, such an assumption maintains positive self-esteem).

It was determined that the fundamental assumptions about positive self-image, the benevolence of the world and the just relationship between Self and the world around were strongly changed because of psychological trauma and negative life events (Kaler, 2010). The concept of fundamental assumptions can be applied to people in general, not just those who have experienced traumatic events or in clinical psychology (Bruggen et al., 2018).

Thus, based on the above analysis, the study on fundamental assumptions as parameters of psychological hardiness of students with disabilities and on personal qualities determining these assumptions is important because these qualities can contribute to the development of personal hardiness.

The research object was predictors of psychological hardiness of students with disabilities.

The research aim was to identify psychological characteristics and factors having the greatest impact on psychological hardiness of students with disabilities.

Research sample and participants
The study involved 225 students with disabilities studying at the University “Ukraine” and Drahomanov National Pedagogical University (Kyiv, Ukraine). Their age ranged from 19 to 22 years.

The study was conducted according to the general ethical principles; we adhered to the ethics of the study participants. Confidentiality of personal information was ensured, the participants were informed regarding the study purpose and that its results would be presented only in a generalized form. The students’ verbal consent was also obtained.
Methods of the research

Basing on the research aim, we used the following techniques to study empirically an individual’s fundamental assumptions and psychological hardness: Maddi Hardiness Scale (Leontiev & Rasskasova, 2006); Janoff-Bulman’s World Assumptions Scale adapted by Kravtsova (Soldatova & Shaygerova, 2003).

To reveal and expand the meaning of psychological hardness and reveal its personal determinants, we used the following methods: Ryff’s Scales of Psychological Well-being (Ryff, 1995); the questionnaire on self-attitude (Stolin & Pantileev, 1988); General Self-Efficacy Scale (Schwarzer, Jerusalem, & Romek, 1996).

For statistical analysis of the obtained data, the following methods of mathematical statistics were used: correlation, regression analysis. The processing of the obtained empirical data was carried out using the statistical software package SPSS 21.0 for Windows.

Results and Discussion

Table 1 presents the descriptive statistics on fundamental assumptions of students with disabilities.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Normative data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolence of the world (BW)</td>
<td>4.15</td>
<td>0.8</td>
<td>4.42</td>
</tr>
<tr>
<td>Benevolence of people (BP)</td>
<td>3.77</td>
<td>0.7</td>
<td>4.07</td>
</tr>
<tr>
<td>Justice (J)</td>
<td>3.69</td>
<td>0.4</td>
<td>3.93</td>
</tr>
<tr>
<td>Controllability of events (C)</td>
<td>3.91</td>
<td>0.7</td>
<td>4.12</td>
</tr>
<tr>
<td>Randomness (R)</td>
<td>3.56</td>
<td>0.8</td>
<td>3.54</td>
</tr>
<tr>
<td>Self-worth (SW)</td>
<td>3.84</td>
<td>0.9</td>
<td>4.35</td>
</tr>
<tr>
<td>Self-controllability (SC)</td>
<td>4.08</td>
<td>0.7</td>
<td>4.43</td>
</tr>
<tr>
<td>Luck (L)</td>
<td>3.54</td>
<td>1.1</td>
<td>4.06</td>
</tr>
</tbody>
</table>

The performed analysis of the frequency distribution for fundamental assumptions allowed us to make the following generalizations:

1. The “Benevolence of the world” indicator corresponded to the normative values at 60% of the surveyed students. This means that students with disabilities mostly had positive attitudes towards the world around them, believed that the world was more good than evil, and were convinced that the benevolence of the world would allow them to find their place in it.

2. The “Benevolence of people” indicator was slightly below the norm at 52% of the studied students. This means that they were convinced that people around them were rather unfriendly, indifferent to other people. This assumption was probably formed because of the social policy of segregation of people with disabilities applied for a long time that led to their limited communications, insufficient experience of interaction with others.

3. The indicators of “justice”, “randomness”, related to the basic assumption about the life event significance and distribution (fairness), corresponded to the normative values at 64.7% of the surveyed students. This means that they were convinced in justice, in particular that good people deserved positive life events, did not have problems; that life was full of uncertainty and chances. Such an illusory perception of students with...
disabilities of the surrounding world, in our opinion, indicates their passive life position, unwillingness to develop and realize their own potential, to withstand failures.

4. The “controllability of events” indicator, revealing meaningfulness of life events, was slightly lower than the norm at 51% of the studied students. This means that they mostly were not sufficiently aware of the consequences of their own actions; it was difficult for them to manage and control life events (especially negative ones); they were not ready to take responsibility for their own lives. In our opinion, this was because they were uncertain in the strength of their Self.

5. The indicators of “self-worth”, “self-controllability”, “luck”, related to self-esteem and self-importance, were below the norm at 58% of the studied students. This shows that they were not enough self-confident; they often felt helpless, convinced in the inability to influence the events of their own lives; they considered themselves “unlucky” and that others were happier; consequently, they often expected good luck without making efforts to implement their potential.

We performed the correlation analysis to identify the assumptions underlying the components of psychological hardiness of students with disabilities. The results are presented in Table 2.

Table 2. Correlations between psychological hardiness and fundamental assumptions of students with disabilities (N=225)

<table>
<thead>
<tr>
<th>Fundamental assumptions</th>
<th>Commitment</th>
<th>Control</th>
<th>Challenge</th>
<th>General hardness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolence of the world (BW)</td>
<td>0.46**</td>
<td>0.48**</td>
<td>0.49**</td>
<td>0.66**</td>
</tr>
<tr>
<td>Benevolence of people (BP)</td>
<td>0.43**</td>
<td>0.56**</td>
<td>0.48**</td>
<td>0.54**</td>
</tr>
<tr>
<td>Randomness (R)</td>
<td>-0.34**</td>
<td>-0.44**</td>
<td>-0.48**</td>
<td>-0.46**</td>
</tr>
<tr>
<td>Luck (L)</td>
<td>0.37**</td>
<td>0.46**</td>
<td>0.35**</td>
<td>0.45**</td>
</tr>
</tbody>
</table>

Note: * - correlation is significant at the level 0.05; ** - correlation is significant at the level of 0.01

The results show that all indicators of psychological hardiness correlate to those fundamental assumptions that determine respondents’ attitudes the world (belief in its benevolence, justice) as a chance to have a better life and to be lucky. From this we can conclude that psychological hardiness is determined by dominant positive attitudes to the world, the belief in its kindness and people’s friendliness, hope for good fate and luck. It is obvious that a positive, optimistic attitude to the world, people around, reliance on justice, hope contribute to an individual’s mental health and psychological hardiness. However, it is important to develop those personal qualities that determine self-confidence, self-value, positive self-attitude and self-esteem.

The next step in our study was to reveal correlations between the fundamental assumptions of students with disabilities and their personal qualities. We performed the correlation analysis for indicators of fundamental assumptions, self-efficacy and psychological well-being. Table 3 presents only those indicators that correlated the most strongly with fundamental assumptions.
Table 3. Correlations between personal qualities and fundamental assumptions of students with disabilities (N=225)

<table>
<thead>
<tr>
<th>Fundamental assumptions</th>
<th>Self-efficacy</th>
<th>Autonomy</th>
<th>Self-acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolence of the world (BW)</td>
<td>0.45**</td>
<td>0.55**</td>
<td>0.66**</td>
</tr>
<tr>
<td>Benevolence of the people (BP)</td>
<td>0.35**</td>
<td>0.33**</td>
<td>0.39**</td>
</tr>
<tr>
<td>Justice (J)</td>
<td>0.46*</td>
<td>-0.36**</td>
<td>0.56**</td>
</tr>
<tr>
<td>Controllability (C)</td>
<td>-0.33**</td>
<td>-0.31*</td>
<td>-0.41**</td>
</tr>
<tr>
<td>Randomness (R)</td>
<td>0.08</td>
<td>-0.32*</td>
<td>-0.46**</td>
</tr>
<tr>
<td>Self-Worth (SW)</td>
<td>0.39**</td>
<td>0.63**</td>
<td>0.53**</td>
</tr>
<tr>
<td>Self-controllability (SC)</td>
<td>0.26</td>
<td>-0.53**</td>
<td>0.55**</td>
</tr>
<tr>
<td>Luck (L)</td>
<td>0.46*</td>
<td>-0.43**</td>
<td>0.37**</td>
</tr>
</tbody>
</table>

Note: * - correlation is significant at the level 0.05; ** - correlation is significant at the level of 0.01

The strongest correlations were found between the “benevolence of the world” and self-acceptance, autonomy, self-efficacy; between the assumptions on self-worth, self-controllability and such qualities as autonomy and self-acceptance; between beliefs in the fairness of the distribution of good/bad life events between people and such qualities as self-acceptance and self-efficacy.

The medium-strength correlations were found between self-efficacy and beliefs in friendliness, benevolence of the world, one’s own luck, one’s own virtues.

Thus, the results of the study show that a positive attitude, the ability to accept different aspects, qualities of self, personal autonomy, self-efficacy, which underlie the system of personal meanings, help an individual to predict life events, direct their activities and make decisions.

Self-acceptance, self-efficacy and competence to rely on a positive, optimistic attitude to the world around them, feeling of justice, positive self-attitude, adequate self-esteem are important for the development of personal autonomy of students with disabilities. Namely, positive attitudes to the world, people, reliance on justice in relations, self-value determine emotional well-being (Young, Klosko, & Weishaar, 2003), a specific vision of the future, the ability to realize their own potential, to find ways for goal achievement (Hardy, 2020).

We used the regression analysis to determine the prognostic indicators for psychological hardiness. The calculation results for psychological hardiness predictors are presented in the Table 4.

Table 4. Prognostic models of psychological hardiness of students with disabilities (N=225)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>.88*</td>
<td>.86</td>
<td>.86</td>
<td>1.084</td>
</tr>
</tbody>
</table>

c. Predictors: (const) benevolence of the world, self-acceptance, autonomy
Dependent variable: hardiness

The model explaining 86% of the data variance predicts psychological hardiness the most accurately. The model is considered valid if the R-square exceeds 0.5. The obtained value is greater than 0.5, therefore, we can say that the obtained model is statistically significant. Table 5 shows the resulting linear coefficients linking the dependent variable with predicting personal characteristics.
Table 5. Linear coefficients for the predictors (N=225)

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Non-standardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>standard error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(const)</td>
<td>1.558</td>
<td>.486</td>
<td>3.205</td>
<td>.002</td>
</tr>
<tr>
<td>benevolence of the world</td>
<td>.998</td>
<td>.022</td>
<td>.479</td>
<td>44.552</td>
</tr>
<tr>
<td>self-acceptance</td>
<td>.930</td>
<td>.026</td>
<td>.362</td>
<td>36.011</td>
</tr>
<tr>
<td>autonomy</td>
<td>1.003</td>
<td>.032</td>
<td>.283</td>
<td>31.094</td>
</tr>
</tbody>
</table>

Dependent variable: hardiness

Thus, the predictors that have a positive impact on psychological hardiness of students with disabilities are:

- the fundamental assumption of the benevolence of the world, which means a positive, optimistic attitude to the world, determines the need to learn about it, openness to new experiences, the ability to establish close relationships with others;
- self-acceptance, expressed in the conscious acceptance of an individual as he/she is, with all virtues and drawbacks, regardless of other people’s assessments;
- autonomy, expressed via self-determination and independence, self-regulation of one’s own behaviour on the basis of personal standards, the ability to think independently, make decisions and take responsibility for them, to resist social pressure.

Discussion

Higher education and professional training for students with disabilities is an effective tool for them to be in social demand, economically independent and mobile, to have freedom of choice for life goals and personal self-realization. However, a relatively small proportion of young people with disabilities receive education in the context of inclusive education. Obviously, it is difficult to take such a serious step as accept the challenge of being “on an equal footing” if psychological resources are insufficient. Therefore, an important psychological and pedagogical task of educational institutions where students with disabilities study is to create conditions for the development of students’ psychological qualities that determine their psychological hardiness, which is a necessary internal resource that provides capabilities and courage to engage in changing situations, to form a constructive life position and improve physical and mental health of students with disabilities.

Our study has shown that important factors ensuring psychological hardiness of students with disabilities are: positive, optimistic attitudes to the world around them, activating personal meanings for cognition of the world and interaction with it, develop the ability to plan and build their own future, even in difficult life situations, as opposed to resources spent “to survive a moment, a situation”. Such conclusions are confirmed in the works of other authors, in particular, in the works about positive self-acceptance of various parts of own Self, cognition of an individual’s strong and resourceful qualities, the activation of which develops self-activity for daily tasks; at the same time, these qualities turn into a resource for one’s own development in difficult situations, changes (Najmeh, 2020); in the work about personal autonomy as an ability to independently determine and regulate one’s own life, behaviour, to
evaluate oneself according to personal criteria, ability to resist external influences (Shane & Lopez, 2014).

In the context of development of psychological hardiness of students with disabilities, it is important to develop skills for personal reflection that promote self-esteem, self-value, self-control, positive self-attitude, which is an important factor for mental health (Zeigler-Hill, 2011).

Conclusions

Our study has shown that psychological hardiness as a personal property of students with disabilities has strong internal links with students’ system of fundamental assumptions and is the result of their relationships with the world; psychological hardiness as an important internal resource helps to improve their physical and mental health, successful adaptation in difficult life situations, helps to cope with difficulties in situations of a choice associated with self-realization and an individual’s transcendence.

We have determined that fundamental assumptions of students with disabilities are characterized by a certain conflict, manifested in the inconsistency between positive attitudes to the world as a whole and distrust to other people (unwillingness to enter into partnerships with them); belief in the fairness of life event distribution between good people and lack of sense of responsibility for their lives (unwillingness to control life events, insufficiently valuable attitude to themselves) and, therefore, illusory hopes for luck and good fortune.

The beliefs such as “I am weak, insecure, although in general the world is good, friendly to me, so I hope for luck” can determine the specific lifestyle such as “going with the stream”.

Beliefs in the benevolence of the surrounding world and people, the meaningfulness of some events, as a chance to build their own lives and their own luck, have a significant impact on the formation of psychological hardiness of students with disabilities.

The key predictors of psychological hardiness of students with disabilities are:

1. The fundamental assumption of the benevolence of the world, which means a positive, optimistic attitude to the world, determines the need to learn about it, openness to new experiences, the ability to establish close relationships with others;
2. Self-acceptance, expressed in the conscious acceptance of an individual as he/she is, with all virtues and drawbacks, regardless of other people’s assessments;
3. Personal autonomy, expressed via self-determination and independence, self-regulation of one’s own behaviour on the basis of personal standards, the ability to resist social pressure.

Thus, learning in an inclusive educational environment has a highly developmental potential and is a good condition for social adaptation, for positive fundamental assumptions and the disclosure of personal resources for psychological hardiness of students with disabilities.

References


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Summary

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The predictors of psychological hardiness of students with disabilities are: positive, optimistic attitude to the world; self-acceptance, expressed in the conscious acceptance of an individual as he/she is, with all virtues and drawbacks; personal autonomy as self-regulation of one’s own behaviour on the basis of personal standards, the ability to adequately assess their capabilities and resist social pressure.

We have shown that a positive, optimistic attitude to the world, people around, reliance on justice, hope contribute to an individual’s mental health and psychological hardiness. Thus, learning in an inclusive educational environment has a highly developmental potential and is a good condition for social adaptation, for positive fundamental assumption and the disclosure of personal resources of psychological hardiness of students with disabilities. However, it is important to develop those personal qualities that determine self-confidence, self-worth, positive self-attitude and self-esteem.

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