INTERRELATION OF FIRST-SEMESTER STUDENTS' DEPRESSION WITH SOCIAL SUPPORT AND HARDINESS

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Abstract: The research analyses adaptation of the first-semester students in the environment of the university. Negative tendencies related to wellbeing, mental and physical health of the first-semester students have already been found in the previous studies in Latvia, Lithuania, the USA, and Russia. Depression is listed as one of the most essential negative expression of stress. The issue of the research - which psychological factors further stress management (in hardiness) and how they affect expressions of depression (severity). The research of the correlation shows statistically significant correlation among individual features. After dividing students depending on their depressiveness into groups with relatively high and low level of hardiness, it was concluded that there were more students with high hardiness indicators in the group with minimal depression (BDI-II scores: $0 - 13$), however, students with low hardiness indicators dominated in the groups with mild (BDI-II scores: $14 - 19$) and moderate depression (BDI-II scores: $20 - 28$), the differences among the groups were statistically significant ($\chi2 = 16.09$; $p < 0.001$).

Keywords: first-semester students, depression, social support, hardiness.

Introduction

As for spectrum of difficulties, there are similar tendencies for new students while they are adapting in the university environment in Latvia, Lithuania and the USA (Voitkāne & Miezīte, 2001; Balaisis, 2002; Galagher, Golin & Kelleher, 1992). The research of the first-semester students of the University of Latvia carried out by S. Voitkane and S. Miezite in spring of 2001 shows serious problems associated with their wellbeing, mental and physical health. Students often pointed out to various problems related to their emotional state. The study of the environment of the Russian students also shows similar tendencies – 25% of the first-semester students experience emotional disadaptation and high level of stress (Холмогорова, Гаранян, Евдокимова, Москова, 2009).

Young people of this age group are still searching for their identity; they have to develop a new identity along with the studies, and have to master a new social role which may cause emotional disadaptation.

The way each person views himself/herself as a student of the university determines how he/she will perform the tasks and requirements set by the university. Thus, successful adaptation is individually and socially important.

Researchers consider interpersonal functioning, eating and sleeping habits, feelings, self-assessment/attitude towards himself/herself, understanding of problems and circumstances, emotional state, critical thinking, relationships with other people, social support of family, availability and quality of support, division of responsibility in family, relationships with peers, the number of close friends and quality of relationships, leisure activities among peers, frequency and peculiarity of conflicts with peers, alignment with the university, i.e., an opinion about the university, enjoyable and less enjoyable study courses and the teaching staff, extracurricular activities, conflicts within the university, as well as involvement in the community (clubs, societies, parties, churches, sport teams), nature of social support perceived from community, mobility within the borders of community, and employment as essential and important areas of the research to understand students' depression. (Merrell, 2008, 55-56)

The researchers M. Heath and D. Sheen emphasize that, when rendering help to a depressive student and preventing depression, it is important to develop and improve student's social competencies enabling him/her to receive and to give necessary support within the social network. The student would have to master an ability to collaborate, listen to, encourage, keep an eye contact, provide feedback, solve conflicts, and adequately endure rejections. (Heath, Sheen, 2005, 114) They suggest the teaching staff to be aware of how students' state of mind affects their studies; besides, they

emphasize that the teaching staff has to help students to develop a positive life history; as well as they have to help a student to feel loved and accepted; it is necessary to respond to one's behaviour instead of his/her personality. It is possible to help a depressive student by accepting his/her uniqueness, encouraging him/her in decision-making, maintaining stabile, predictable and relatively unchangeable requirements during the study process, as well as by helping him/her to develop closer relationships with his/her family, professionals and supportive (providing support) peer group. (Heath, Sheen, 2005, 112)

The symptoms of depression among the children and young people depend on their age and sex; however, they have a tendency to increase as the age of the respondents increases. The symptoms of depression are found in 1-2% of the children and 1-7% of the young people. Depression of the young people features low spirits, tearfulness and/or rage, negative view of themselves, world (environment) and future, problems in mutual relationships, low interest in the surrounding world, low participation in various activities, poor/low problem solving abilities, inadequate thinking, loss of appetite, sleeplessness, psychomotor excitation, tiredness, and suicidal thoughts. (Swearer, Collins, Radliff, Wang, 2011, 46)

Two models are more frequently considered in the literature as for interconnections of social support and effective functioning of children and young people – the stress buffering model and the main effect model. The stress buffering model (Cohen, Underwood, Gottlieb, 2000) features the role of social support in stressful situations. The social resources and support prevent potential pathogenic consequences of stressful events. According to the authors of the theory, it is done by redefining the situation, thus, reducing its subjective significance, as well as reducing affective tension and possibility of inadequate, unconsidered behaviour. (Cohen, Pressman, 2004, 780-781) Social support reduces impetuousness, depression, protects from using the substances causing addictions. (Demaray, Malecki, 2011, 183)

The theories emphasizing the main effect model, in their turn, highlight the fact that social support increases individual's self-esteem and belief in one's own abilities to influence events and environment (Cohen, 1988), psychological status, feelings of security, stability, self-esteem and acceptance, and reduces possibilities of having mental problems. (Demaray, Malecki, 2011, 183) The research shared by the German and Polish researchers (Schaarschmidt, Arnold, Ronginska, 2000) found out that social support is an important factor affecting mental health, as the basis of it is an interaction with other people. It can be implemented both as emotional support (help), by solving problems, and as help rendered by specific individuals, providing feeling of security. (Schaarschmidt, Arnold, Ronginska, 2000)

According to the researchers (Coon, Mitterer, 2007, 514), the symptoms of depression are experienced by approximately 80% of the college students, 16–30% of the students suffer from depression during the academic year. The reasons are as follows: the difference between the study process of the university and that of a school; loss of the old social support groups (a family, class-mates, school time friends), isolation, loneliness, learning difficulties, academic problems (high achievement motivation + small experience of loss); problems of close relationships with an opposite sex; difficulties to maintain an ideal behavioural model; excessive usage of alcohol (as depressant). (Coon, Mitterer, 2007, 514)

S. Maddi, in his turn, names hardiness, as well as optimism and religiosity as the most important stress management factors (Maddi, 2006). Hardiness is a combination of attitudes making it possible to change stressful circumstances from potential calamity into the opportunity for growth, using courage and determination. Researchers (Maddi, Khoshaba, 2001) emphasize that to maintain optimal level of health, working capacity and activity in stressful circumstances, all three factors are equally important. A higher level of those components prevents inner tension in stressful situations due to hardy coping and perception of it as less significant.

Hardiness, as a stable personality disposition is formed from three interrelated beliefs: commitment (i.e. a tendency to involve oneself in the activities in life and having a genuine interest in and curiosity about the surrounding world (activities, things, other people)), control (i.e. a tendency to feel and act as if one can influence the events taking place around oneself through one's own effort), and challenge (i.e. a belief that change, rather than stability, is the normal mode of life and constitutes

motivating opportunities for personal growth rather than threats to security). Hardy individuals tend to interpret demanding situations, such as highly competitive sporting contests, in less stressful ways because they view them as desirable, controllable, and challenging. In the early days of hardiness research, it was usually defined as a personality structure comprising the three related general dispositions of commitment, control, and challenge that functions as a resistance resource in the encounter with stressful conditions. Nowadays, researchers consider hardiness as a broad personality style or generalized mode of functioning that includes cognitive, emotional, and behavioural qualities. This generalized style of functioning, is believed to affect how one views oneself and interacts with the world around. (Maddi, Khoshaba, 2001; Bartone, 2006)

The issue of the research is as follows: which psychological factors further stress management (hardiness) and how they affect expressions of depression (severity).

Materials and methods

The research was carried out at Latvia University of Agriculture with participation of 82 first-semester students. The participants of the study were 65 female and 17 male first-semester students between the ages of 19 to 22 who were drawn from the Faculty of Economics of Latvia University of Agriculture. The gender distribution was approximately proportionate to that within the student body of the Faculty of Economics of Latvia University of Agriculture, in which four fifths of the students are female and one fifth is male.

The students were provided with a package of questionnaires in their classes. The questionnaires were handed out to the students which after filling them out personally returned them back to the researchers. The questionnaires were filled out both in the classrooms, and outside of them. Most of them (approx. 75%) filled the questionnaires out in the classrooms.

The Personal Views Survey (45 items), consists of 3 subscales: commitment (18 items); control, (17 items); challenge, (10 items). According to Likert-type scale the respondents had to choose out of four possible answers: "yes", "rather yes than no", "rather no than yes" and "no". The answers were coded in further processing according to the pattern provided in the methodological material. The survey has acceptable validity and internal consistency, Cronbach alpha for hardiness was found to be 0.80 (for commitment – 0.59, control – 0.63, challenge – 0.57).

The Commitment scale is interpreted as a belief that commitment provides maximal possibility to enjoy one's activity.

The Control scale is a belief that a struggle provides for an opportunity to influence the result of the ongoing activities, though, influence is not absolute and success is not guaranteed. An individual with high indicators in this scale feels that he himself/she herself chooses his/her behaviour and tactics for specific situations.

The Challenge scale shows individual's belief that everything furthers his/her growth due to knowledge he/she gets from his/her experience - whether positive or negative. An individual with high indicators perceives life as an opportunity to obtain experience; he/she is ready to act even there is no success guaranteed. (Maddi, Khoshaba, 2001; Леонтьев, Рассказова, 2006)

Multidimensional Scale of Perceived Social Support (MSPSS), originally developed on university students, provides assessment of three sources of support: family (FA), friends (FR), and significant other (SO), accordingly contains three subscales—family (4 items), friends (4 items), and significant other support (4 items). The respondents had to mark the items they agree with. The maximal possible score for each subscale was 4, the total score of the questionnaire was 12, and the minimal score was 0. (Zimet, Dahlem, Zimet, Farley, 1988; Карвасарский, 2004)

Zimet and his colleagues have argued well the unique features of this scale. First, it is short (12 items in total) and is ideal for research that requires assessment of multiple variables and populations which, for one reason or another, cannot tolerate a long questionnaire. Second, a point related to above, MSPSS items are easy to understand and are therefore suitable for young populations or populations with limited literacy level. Third, despite being a brief instrument, MSPSS measures support from three sources, and in particular, the SO subscale is rather unique among measures in the field. Who the ''significant other(s)'' is left to the respondent to define. Researchers argued that the SO subscale is a strong supplement to the family and the friends subscales because it taps a different

support source for the student, such as boyfriend/girlfriend, teacher and counsellor (Zimet, Dahlem, Zimet, Farley, 1988).

Beck Depression Inventory (BDA–II) is a self-report instrument for measuring the severity of depression in adults and adolescents aged 13 years and older. It consists of 21 items, further divided into Cognitive –Affective and Somatic scales. Items are organized according to the severity of the content of the statements to be selected, and each item is rated on a four-point scale ranging from 0 to 3 in terms of severity. BDI–II Cronbach α = 0,87. (Beck, Steer, Brown, 1996; Beck, Alford, 2009)

Interpretation of the BDI-II results: 0–13: minimal depression; 14–19: mild depression; 20–28: moderate depression; and 29–63: severe depression. The BDI – II, unlike the BDI, matches more precisely with the depression criteria included in the DSM – IV (The Corsini Encyclopedia of Psychology, 2010, 210).

Results and discussion

The central tendency indicators are reflected in the Table 1. Using the Mann-Whitney U criteria, it was found that there were no significant differences in total assessments of hardiness, perceived social support and depressiveness among the answers provided by males (n = 17) and females (n=65) (all calculated $p > 0.05$). Statistically significant differences were observed in the Control and Challenge subscales, average indicators of control and challenge provided by male students were significantly higher than those provided by female students. As shown in the Table 3, at least a mild level of depression was observed in 31.7% of the sample.

Table 1

Minimal and Maximal Scores, Central Tendency Indicators and Importance of Differences in Results in Female and Male Samples

	Sample	M (*Mean*)	SD (*Standard Deviation*)	Min	Max	Mann-Whitney U	*p* (Asymptotic Significance (2-tailed))
Perceived social support scale	All, n=82	10.62	1.98	0	12	476.50	0.353
Hardiness, Commitment subscale	All, n=82	29.74	4.93	19	40	438.50	0.190
Hardiness, Control subscale	Female, n=65	25.23	5.44	13	35	354.50	*0.023*
Hardiness, Control subscale	Male, n=17	28.71	5.58	18	39		
Hardiness, Challenge subscale	Female, n=65	14.48	3.34	7	21	362.00	*0.029*
Hardiness, Challenge subscale	Male, n=17	16.53	3.36	9	22		
Hardiness, total	All, n= 82	70.60	12.12	43	99	465.50	0.319
Depression, Cognitive-Affective subscale	All, n= 82	5.61	4.86	0	16	462.00	0.299
Depression, Somatic subscale	All, n= 82	3.04	3.42	0	13	507.00	0.594
Depression, total	All, n= 82	8.65	7.66	0	27	482.50	0.422

Table 2

Intercorrelation Matrix

	Correlation Coefficients (*Spearman's rho*)							
		1	**2**	**3**	**4**	**5**	**6**	**7**
1	Perceived social support	-						
2	Hardiness, Commitment subscale	0,18	-					
3	Hardiness, Control subscale	0,16	0,61 [a]	-				
4	Hardiness, Challenge subscale	0,33 [a]	0,50 [a]	0,57 [a]	-			
5	Hardiness, total	0,24 [b]	0,84 [a]	0,88 [a]	0,77 [a]	-		
6	Depression, Cognitive-Affective subscale	-0,38 [a]	-0,48 [a]	-0,39 [a]	-0,70 [a]	-0,61 [a]	-	
7	Depression, Somatic subscale	-0,36 [a]	-0,28 [b]	-0,19	-0,55 [a]	-0,40 [a]	0,72 [a]	-
8	Depression, total	-0,39 [a]	-0,45 [a]	-0,35 [a]	-0,71 [a]	-0,58 [a]	0,96 [a]	0,87 [a]
Significance (2-tailed): [a] – Correlation is significant at the 0.01 level ($p < 0.01$) [b] – Correlation is significant at the 0.05 level ($p < 0.05$)								

The study of correlations shows the statistically significant correlations among individual features. Perceived social support significantly correlates with the Hardiness, Challenge subscale ($p < 0.01$), and also with the Total Hardiness scale ($p < 0.05$), thus, confirming the role of social support when choosing adequate and responsible behaviour in unpredictable, challenging situations by adequately assessing and applying present and past events and life experience.

When comparing the Hardiness scales, its individual subscales and Depression Inventory with the coefficients of the individual subscales, it was found that they were similar to the results obtained during adaptation carried out in Russia in 2006 (Леонтьев, Рассказова, 2006). The negative correlation of the Hardiness and depression indicators is found in the studies of students' learning motivation. (Cole, Feild, Stanley, 2004)

The social resources (support) prevent potential pathogenic consequences of stressful events, helping redefine complicated situations, thus, reducing their subjective meaning. These resources also reduce affective tension and possibility of inadequate, unconsidered behaviour (Cohen, Pressman, 2004,780-781), on the one hand, increasing self-esteem and belief in one's abilities to influence events and environment, psychological status, feeling of security, stability, self-esteem and acceptance, and on the other hand, reducing possibility of causing mental problems in future (Demaray, Malecki, 2011, 183)

Statistically significant ($p < 0.01$) negative correlation of the results of the perceived social support scale and Beck Depression Inventory was found in the research, showing that when the MSPSS results increase, depression indicators reduce and vice versa. It would be reckless to state that perceived social support reduces the symptoms of depression.

Depression among the young people features low spirits, tearfulness and/or rage, negative view of themselves, world (environment) and future, problems in mutual relationships, low interest in the surrounding world, low participation in various activities, poor/low problem solving abilities, inadequate thinking, loss of appetite, sleeplessness, psychomotor excitation, tiredness and suicidal thoughts (Swearer, Collins, Radliff, Wang, 2011, 46), therefore, it is possible that the interconnection is opposite – assessment of social support by depressive students is lower due to directly expressed symptoms of depression.

By dividing students depending on their depressiveness into groups of relatively high and low level of hardiness, we concluded that there were more students with high hardiness indicators in the group with a low level of depression (BDI-II scores: 0 – 13), however, there were more students with low indicators of hardiness in groups with mild (BDI-II scores :14 – 19) and moderate depression (BDI-II scores: 20 – 28) (Table 3), the differences among the groups were statistically significant ($\chi2 = 16.09$; $p<0.001$).

Table 3

Interrelations between Hardiness and Depression

		Depression		
		Minimal	**Mild**	**Moderate**
Low hardiness, n = 40	Count	19	13	8
	% within group of low hardiness	47,5%	32,5%	20,0%
High hardiness, n = 42	Count	37	2	3
	% within group of high hardiness	88,1%	4,8%	7,1%
Total, n= 82	Count	56	15	11
	% of Total	68,3%	18,3%	13,4%
Minimal depression BDI-II scores: 0 – 13 Mild depression: BDI-II scores: 14 – 19 Moderate depression: BDI-II scores: 20 – 28				

Conclusions

Results of research indicate that at least a mild level of depression was observed in 31.7% of the sample. The results indicate that students with higher level of perceived social support and hardiness obtained lower scores in all dimensions of depression. The results presented substantiate the close link between depressiveness of first-semester students and their hardiness. Perceived social support and hardiness increase confidence in student's stress management ability. Hardy, socially supported students manage stress better and can use the learning environment more effectively. When encountering difficulties they do not experience increasing depression, because they rely on themselves and evaluate optimistically their ability to resolve difficulties.

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