Psychological Well-being and its Relationship with the Academic Achievement of Lithuanian Students

Violeta Rapuano
Ateities g. 20, LT-08303 Vilnius

The article has been reviewed.
Received on 31 October 2019, accepted on 16 December 2019

Abstract
The present article aims to analyze the role of psychological well-being when predicting Lithuanian students’ academic achievement. The study was conducted using the quantitative method of questionnaire survey. Data of the survey were analyzed using correlation and multiple regression analyses. It was found that psychological well-being and all its dimensions had a significant positive relationship with academic achievement. Furthermore, such dimensions of psychological well-being as environmental mastery and self-acceptance were found to be significant predictors of students’ academic achievement.

Keywords: psychological well-being, academic achievement, students

Introduction
Psychological well-being is a widely investigated concept which is usually described as a combination of positive feeling and positive functioning. There is a general agreement among researchers that well-being is a multidimensional construct (Hone et al., 2014) which includes different indicators and dimensions, such as positive relationships, purpose in life, engagement, positive emotions, optimism, accomplishments, etc. (Keys, 2005; Huppert and So, 2009; Seligman, 2011). As a functional definition, well-being is often defined as a high level of positive effect, a low level of negative effect, and a high degree of satisfaction with one’s life (Deci and Ryan, 2006). Over the past decades, governments around the world have been recognising the importance of promoting their citizen’s well-being (Huppert and So, 2013) since a positive mental health and well-being of citizens result in a broad range of impacts across different sectors and result in an improved social cohesion, economic progress and sustainable development (EC; European Commission, 2016). High levels of well-being is a human right and a mental capital which represents intellectual and emotional potential of state (EC, 2016). Given the fact that the majority of lifetime mental disorders start before adulthood many efforts in promoting well-being are concentrated in education settings. In fact, the importance of higher psychological well-being levels of students has been proven by a number of studies (McKnight et al., 2002; Malinauskas et al., 2014; Mega et al., 2014; Nikolaev, 2016). Transition points, such as school to college, or college to work, are one of the most challenging stages in one’s life. Psychological well-being-related problems among university students have become increasingly common (Udhayakumar and Illango, 2018). According to OECD (2018), anxiety and depression are more common among university students than among the general population. Educational environment has an important influence on students’ well-being since it is a place where young adults not only gain vocation-related skills but also develop their personality and connect with others (Bücker et al., 2018). During academic years, students face a variety of challenges, such as uncertainty about future career, academic stress (Ibrahim et al., 2013; Sarokhani et al., 2013), time pressure, fear of failure, struggle to establish their identities, the pressure of academic excellence, greater academic demands, changes in social life, exposure to new people’s ideas and temptations (Udhayakumar and Illango, 2018). All these kinds of stressors may affect students’ psychological well-being and manifest in various negative behaviours and attitudes. Good psychological health conditions are required in order to obtain academic success (Turashvili and Japaridze, 2012). High levels of psychological well-
being and academic achievement are both important values in contemporary society (Bücker et al., 2018). Relationship between psychological well-being and academic achievement has gained substantial attention from researchers (Huebner and Alderman, 1993; Steinmayr et al., 2015; Bücker et al., 2018), however attention has mainly been put on the relationship between the constructs in the population of school students.

University students’ psychological well-being is an important topic in the Lithuanian context on account of the fact that Lithuania has the highest rate of higher educational attainment across the European Union (EU) (58% of the population aged 30-34 years, according to EC, 2018). The recent study conducted by the Lithuanian National Union of Students revealed that 80% of students felt high levels of anxiety and 75% of them experienced high levels of stress in the recent year (LSS, 2018). It indicates that more attention should be paid to the emotional state of higher education students since mental health-related issues can affect students’ normal functioning in different fields of activities, one of which is learning. In this study we suggest that higher psychological well-being can play an important role in predicting Lithuanian students’ academic achievement. However, the efforts in well-being studies are concentrated more in school settings rather than in higher education institutions. As far as we know, no previous research has investigated the relationship between the psychological well-being and academic achievement of tertiary-level students in Lithuanian context.

Thus, the aim of this study was to analyse the role of Lithuanian students’ psychological well-being in predicting their academic achievement. Hypothesis: psychological well-being predicts students’ academic achievement.

Research methods: scientific literature analysis, quantitative research method – questionnaire survey, statistical data analysis.

The Concept of Psychological Well-being

Psychological well-being refers to the experience of life going well. High levels of well-being does not mean feeling well all the time. Long term psychological well-being is attained when one is able to manage negative emotions (Huppert, 2009). Well-being is seen as lying at the opposite side of mental disorders, such as depression or anxiety. According to the World Health Organization (WHO, 2014), good mental health is “a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.” International organisations, such as the Organisation for Economic Co-operation and Development (OECD), WHO and EU are recognising the importance of and putting efforts in promoting the well-being of populations. In accordance with Michaelson et al. (2009), there are eight benefits to measuring well-being of a population, that is: to assess change over time; to review and evaluate policy decisions; to enable international comparisons; to assess subgroup differences; to identify future areas of need or opportunity; to evaluate the potential impact of policy proposals; to shape the content and delivery of policy; and to inform targeting of new policies according to population subgroups. Thus, well-being of citizens being a good indicator of country’s progress in general, is also important for government and policy makers as it reveals whether or not the policies they implement are successful. There exists a variety of conceptual and operational definitions of well-being. Objective well-being measures (e.g. GDP, wealth, crime rate, education) are informative but provide only limited insight into prosperity of population (Hone et al., 2014) and have a weak correlation with people’s experiences as compared to subjective measures (Helliwell and Putnam, 2005). Increase in income, education and health in different countries does not necessarily account for the increase in happiness and satisfaction with life of citizens. As a result, many researchers have focused their attention on the investigation of subjective well-being or, in other words, what makes people happy. A number of studies found that happy people function better in life, and are more socially engaged and productive than those less happy (Diener, 2000). Following Huppert’s (2009) review, positive psychological well-being is associated with flexible and creative thinking, pro-social behaviour, and good physical health. Even though negative early environment can have lifelong effects, compensation is possible at later stages in the life span. Furthermore, Huppert (2009) reported that an individual’s behaviour and attitudes may have greater influence affecting his/her well-being than external circumstances. Consequently, psychological well-being can be enhanced by interventions encouraging positive attitudes and behaviours.

The psychologist Ryff (1989) proposed a six-factor model of psychological well-being which has become a widely used and accepted method to measure the phenomenon under consideration. The above referenced model includes six distinct components of psychological wellness – self-acceptance, environmental mastery, purpose in life, positive relations with others, personal growth, and autonomy:
• Self-acceptance refers to positive attitude towards self and one’s past life experiences. It relates to being happy and satisfied with oneself even with the flaws, mistakes and failures. An individual’s capability to handle situations with true self combines this dimension (Sharma and Tankha, 2014).

• Personal growth relates to being open to new experiences as well as having the continued ability to develop and grow as a person. It is a feeling of continued development, getting better in life, and realization of one’s potential (Ryff, 1989). Person with a high level of personal growth, develops abilities, builds human capital and expedites employability, improves quality of life and contributes to the realization of dreams and aspirations.

• Autonomy is defined as self-determination and independence. It is the ability to resist social pressures to think and act in certain ways. Person with a high level of autonomy regulates behaviour from within and evaluates self by personal standards (Ryff, 1989). Autonomy can be perceived as the basis for determining moral responsibility and accountability for one’s actions.

• Environmental mastery may be perceived as a sense of mastery and competence in managing the environment. It is a person’s ability to control complex array of external activities and to make effective use of surrounding opportunities. It is a sense of ability to make an influence on the events in our lives and capability of acting on our own behalf.

• Purpose in life relates to person’s life goals and a sense of leading a meaningful life. People with a purpose in life have clear goals and a sense of directedness. They feel a sense of significance to present and past life (Sharma and Tankha, 2014).

• Positive relations with others means having warm satisfying, trusting relationships with others. An individual who has positive relations with others is concerned about the welfare of others, is capable of strong empathy, affection, and intimacy, as well as understands give and take of human relationships (Ryff, 1989).

Hence, an individual characterised by high levels of psychological well-being is able to cope with psychological stress, realizes given potential, experiences positive relationships, feels in charge of one’s life, and has a sense of purpose.

**Psychological Well-being and Academic Achievement**

Students’ academic achievement is an intellectual capital of each country and an essential topic in educational settings, including universities. Together with high subjective well-being, high academic performance is a desirable value of modern societies (Bücker et al., 2018) and an important indicator of high-performing education systems (OECD, 2018). However, it is only recently that researchers have been increasingly focusing their attention on the influence of well-being on students’ academic achievement (Stenmayar et al., 2015). Bücker et al. (2018) state that psychological well-being and academic achievement could be associated in three ways: a) academic achievement has a causal effect on psychological well-being; b) psychological well-being has a causal effect on academic achievement; c) both academic achievement and psychological well-being are influenced by a common third variable. In this paper we built our study upon the second assumption of the causal relations between variables. The second assumption is in line with Fredrickson’s (1998) broaden-and-build theory of positive emotions (Bücker et al., 2018) which states that positive emotions broaden one’s cognition and awareness. Experiencing positive emotions is associated to flexibility, creativity, openness to information, and efficiency. Accordingly, positive feelings may lead to an enhanced academic achievement. Hence, we suggest that the challenges and difficulties students face during their academic years raise stress and anxiety which in turn can have a negative effect on their academic success. And on the contrary, a good mental health of the students may importantly influence their academic achievement. Mega et al. (2014) have found that positive emotions influence students’ self regulated-learning and motivation to learn, in particular confidence in self intelligence, and perception of self as capable in academic domains.

In the last decade, students’ psychological well-being has become a topic of interest and extensively investigated among researchers in Lithuania (Sarakauskiene and Bagdonas, 2010, 2011; Malinauskas et al., 2014; Raiziene et al., 2014; Pakrosnis and Cepukiene, 2014; Pilkauskaite-Valickiene and Gabrielaviciute, 2015). Several empirical studies on the psychological well-being of university students have been conducted, for example Bulotaite et al. (2012) examined the relationship between subjective well-being and stress and students’ subjective assessment of health status; Malinauskas et al. (2014) analysed the correlation between the level of students’ social skills and their life satisfaction; Pakrosnis and Cepukiene (2014) addressed the potential of a solution-focused self-help tool to improve university students’ well-being. However, despite the interest
in students’ psychological well-being, it is not yet known if empirical relationship exists between Lithuanian students’ psychological well-being and their academic achievement. For this reason, with reference to what has been set forth above, the following hypothesis may be put forward:

H: Psychological well-being predicts students’ academic achievement.

Methods

Participants and Procedure
The sample consisted of 107 students (78 females, 29 males) from higher education institutions in Lithuania. The participants were Bachelor and Master students of the Business and Management study programme. The age of participants ranged from 18 to 48 (M=25,49; SD=7,43). Data collection was conducted from November, 2018 to February, 2019. Data were collected via web-based survey. All participants were informed that participation was voluntary and they were not paid for it.

Measures
Psychological well-being was measured with Ryff’s Psychological Well-Being Scale (PWB; Ryff et al., 2007; adapted from Ryff, 1989) that consists of 42 items. The scale measures 6 aspects of well-being: autonomy (7 items, e.g. “I have confidence in my opinions, even if they are contrary to the general consensus”), environmental mastery (7 items, e.g. “I have been able to build a home and a lifestyle for myself that is much to my liking”), personal growth (7 items, e.g. “I have a sense that I have developed a lot as a person over time”), positive relations with others (7 items, e.g. “I know that I can trust my friends, and they know they can trust me”), purpose in life (7 items, e.g. “I enjoy making plans for the future and working to make them a reality”), and self-acceptance (7 items, e.g. “When I compare myself to friends and acquaintances, it makes me feel good about who I am”). There were 7 items for each subscale, being rated on a 6-point Likert-type scale from 1 (strongly disagree) to 6 (strongly agree) and 20 of the 42 were coded reversely. Higher scores indicated greater levels of the subscales. The reliability coefficient (Cronbach’s α) for the total score of the Ryff Psychological Well-Being Scale was 0,93 and for subscales 0,74, 0,74, 0,77, 0,78, 0,83 and 0,83, respectively.

To assess academic achievement we used Academic Adjustment Scale (AAS) (Anderson, Guan, Koc, 2016) which was developed to measure the adjustment of permanent resident or sojourner students. The scale consisted of 3 subscales: academic lifestyle, academic achievement and academic motivation. We used academic achievement subscale in this study. It consisted of 3 items (e.g. “I am satisfied with the level of my academic performance to date”) which were scored on 5 – point Likert – type scale (1 = “Rarely applies to me” to 5 = “Always applies to me”). Higher scores indicated greater level of academic achievement. The reliability coefficient (Cronbach’s α) was 0,85.

Results
First, we calculated means and standard deviations of the study variables (Table 1). Mean scores of academic achievement and all dimensions of psychological well-being were in the high range, therefore students in this study were characterized by high levels of psychological well-being and academic achievement.

Table 1

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>25.78</td>
<td>4.01</td>
</tr>
<tr>
<td>Environmental Mastery</td>
<td>25.18</td>
<td>3.98</td>
</tr>
<tr>
<td>Personal Growth</td>
<td>28.50</td>
<td>3.85</td>
</tr>
<tr>
<td>Positive Relations</td>
<td>27.21</td>
<td>4.6</td>
</tr>
<tr>
<td>Purpose in Life</td>
<td>26.69</td>
<td>4.57</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td>25.3</td>
<td>4.73</td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>10.89</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Second, a one way ANOVA test was conducted to examine whether the level of psychological well-being differs among different age groups of students. Results of the test showed statistically significant differences in psychological well-being among the different age groups (F(3,103)=4.079, p<0.01). Post hoc analyses using the Tukey’s HSD post hoc criterion for significance (Table 2) indicated that the average number of errors was significantly lower in the first age groups (M=166.46; SD=23.02) than in the third (M=184.36; SD=18.29) and fourth (M=185.24, SD=17.01) age group, indicating that freshmen were characterised by significantly lower levels of psychological well-being than senior students.
Table 2

Psychological well-being differences among age groups

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Tukey’s HSD Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (18-19)</td>
<td>28</td>
<td>166,46</td>
<td>23,02</td>
<td>0,534</td>
</tr>
<tr>
<td>2 (20-23)</td>
<td>29</td>
<td>174,59</td>
<td>29,24</td>
<td></td>
</tr>
<tr>
<td>3 (24-30)</td>
<td>25</td>
<td>184,36</td>
<td>18,29</td>
<td>0,026* 0,397</td>
</tr>
<tr>
<td>4 (31-48)</td>
<td>25</td>
<td>185,24</td>
<td>17,01</td>
<td>0,017* 0,320 0,999</td>
</tr>
</tbody>
</table>

*p<0,05

Zero-order correlations are reported in Table 3. Correlations indicated significant positive relationship (r=0,451, p<0,01) between overall psychological well-being and academic achievement. Furthermore, academic achievement showed positive correlations with all dimensions of psychological well-being. Specifically, the strongest relationships were found with environmental mastery (r=0,455, p<0,01), personal growth (r=0,433, p<0,01), and self-acceptance (r=0,478, p<0,01). Hence, based on correlation results, students’ academic achievement was moderately associated to their psychological well-being.

Table 3

Correlations between study variables

<table>
<thead>
<tr>
<th>Construct</th>
<th>Academic achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall psychological well-being</td>
<td>0,451**</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0,237*</td>
</tr>
<tr>
<td>Environmental Mastery</td>
<td>0,455**</td>
</tr>
<tr>
<td>Personal Growth</td>
<td>0,433**</td>
</tr>
<tr>
<td>Positive Relations</td>
<td>0,272**</td>
</tr>
<tr>
<td>Purpose in life</td>
<td>0,339**</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td>0,478**</td>
</tr>
</tbody>
</table>

*p<0,05, **p<0,01

We stated that psychological well-being will predict students’ academic achievement. Multiple regression analysis was used to examine the relation of psychological well-being dimensions to indicators of academic achievement. The results of regression indicated (Table 4) that psychological well-being dimensions significantly accounted for 33,3% of the variance of academic achievement (F(6,100)=9,837, p<0,0001). More specifically, environmental mastery (β=0,323, p<0,05) and self-acceptance (β=0,375, p<0,05) presented significant standardized regression coefficients.

Table 4

Multiple regression analysis predicting academic achievement

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>p</th>
<th>t</th>
<th>R²adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>-0,211</td>
<td>0,058</td>
<td>-2,023</td>
<td>0,333</td>
</tr>
<tr>
<td>Environmental</td>
<td>0,323</td>
<td>p &lt; 0,05</td>
<td>2,436</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Growth</td>
<td>0,126</td>
<td>0,268</td>
<td>1,113</td>
<td>1,113</td>
</tr>
<tr>
<td>Positive Relations</td>
<td>-0,093</td>
<td>0,393</td>
<td>-0,858</td>
<td>-0,858</td>
</tr>
<tr>
<td>Purpose in Life</td>
<td>0,045</td>
<td>0,700</td>
<td>0,386</td>
<td>0,386</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td>0,375</td>
<td>p &lt; 0,05</td>
<td>2,641</td>
<td>2,641</td>
</tr>
</tbody>
</table>

Thus, the results of regression analysis revealed that psychological well-being plays an important role in predicting students’ academic achievement.

Conclusions

In this paper we investigated empirical relationships between psychological well-being and academic achievement of Lithuanian students. We stated that psychological well-being may play a significant part in increasing academic achievement of university students. The results of this study revealed that academic achievement was significantly associated with overall students’ psychological well-being and all its dimensions. The strongest relationships were found with environmental mastery, personal growth, and self-acceptance. Furthermore, in line with our expectations, psychological well-being was found to be an important predictor of students’ academic achievement. Specifically, environmental mastery, and self-acceptance were significant indicators of academic achievement, indicating that students’ positive attitude toward the self, their ability to manage environment, to control complex array of external activities, and make an influence on the events in their life play an important
role in attaining higher academic achievement. Taken together, our findings highlight the importance of promoting well-being of students in third-level education institutions since sustainable university environment can help to maintain a positive mental health which is also important for students’ academic success. Promoting psychological well-being among freshmen is especially important since the results of our study revealed that the group of the youngest students experienced significantly lower levels of psychological well-being than senior ones. Furthermore, we suggest that higher levels of psychological well-being and academic achievement can create a positive university experience which can serve as psychological basement in facilitating transition to the turbulent labour market. In other words, devotion of resources to fostering students’ psychological well-being may be a worthwhile investment. Therefore, students should have a possibility to find support, information and advice in academic settings, such as well-being and mental health services.

However, the results of this study need to be considered in light of several limitations. The study data were cross-sectional. Longitudinal approach would be beneficial in order to find out the causality between study variables. Furthermore, the study used a self-report questionnaire to measure academic achievement, an objective method such as GPA scores could be used in future studies. Also, the study encompassed participants from a narrow occupational field – business and management. Hence, it seems reasonable to investigate if the patterns found in the current study would repeat in different occupational fields in a sample of students. Finally, the sample of the present study contained a disproportionate number of males and females which might have affected results. Gender is an important consideration in the field of psychological well-being and academic achievement; therefore, future studies should consider samples with a more equal gender proportion.

References
Lietuvos studentų psichologinės gerovės ryšys su akademiniais pasiekimais

Santrauka

Taigi, šis tyrimas remiasi prielaida, kad studentų psichologinė gerovė turi įtakos akademiniams pasiekiams. Mokslinėje literatūroje trūksta empiriniais tyrimais pagrįstų duomenų apie šių konstruktyvių sąjūdžio Lietuvos studentų populiacijoje, todėl šio *tyrimo tikslas* – nustatyti Lietuvos studentų psichologinės gerovės prognozinę galia jų akademiniams pasiekimams.

**Tyrimo metodai:** mokslinės literatūros analizė, kiekvienas tyrimo metodas – anksturė apklauza, statistiniai tyrimo metodai (koreliacinės, regresinės analizės).

Tyrimo metodai išvados tarp studentų akademinių pasiekimų ir psichologinės gerovės skaičiavomis. Tyrimo metodai išvados tarp studentų akademinių pasiekimų ir psichologinės gerovės skaičiavomis. Tyrimo metodai išvados tarp studentų akademinių pasiekimų ir psichologinės gerovės skaičiavomis.


**Tyrimo rezultatai:**

- Studentų psichologinė gerovė yra susijusi su demografiniais veiksnių – jaunesni studentai (18–19 metų) pasižymėjo mažesne psichologine gerove nei vyresni studentai (22–28 metų).
- Tyrimo rezultatai atskleidė, kad gebėjimas valdyti aplinką ir savęs priėmimas turėjo stiprų reikšmingos prognozinės galios studentų akademiniams pasiekimams. 

**Pagrindiniai žodžiai:**

- psichologinė gerovė, akademiniai pasiekimai, studentai.