THE LEVEL OF SUBJECTIVE WELL-BEING (FEELING OF HAPPINESS) OF RTA STUDENTS AND ITS INFLUENCING FACTORS

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Abstract. This scientific article analyzes the level of subjective well-being of students of Rēzekne Academy of Technology (RTA) and the main factors affecting this phenomenon. The need for such studies is justified by the latest studies in various countries, which show that nowadays the prevalence and severity of mental problems among young people and early adulthood is increasing. Taken together, these studies show that students are increasingly experiencing symptoms of increased anxiety and stress, as well as depression. Thus, the deterioration of the subjective well-being of young students is a big challenge in modern universities.

The purpose of the empirical study: to investigate the level of subjective well-being of students in relation to certain demographics, as well as to determine the factors that significantly influence this phenomenon in the student environment.

The analysis of scientific literature and empirical results is used as a basic method in the development of the article.

Keywords: students, subjective well-being, adaptation, demographic factors, gender, social relations, health, material condition, stress.

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Introduction

The concepts of subjective well-being and happiness are used interchangeably in this article. This approach was justified in 2004 by R.Emons, who treats the concept of subjective well-being as a scientific synonym of the concept of happiness (Emons, 2004).

The issue of subjective well-being (feeling of happiness) acquires special relevance in the age stages of youth and early adulthood, when a person's identity is formed, as well as the next profession is chosen and its basics are learned. High subjective well-being is associated with the optimism of young people, satisfaction with their life in general and certain aspects of it.

The need for studying the subjective well-being of young students is also supported by the latest studies conducted in different countries (Baik et al., 2015; Cvetkovski, Reavley & Jorm 2012; Eisenberg et al., 2009; Larcombe et al., 2015; Slavin et al., 2014; etc.), who show that there is a decrease in the level of emotional well-being and mental health in the student environment, which is related to the problems of professional self-determination, material security, household and social adaptation of students, as well as the prevalence of mental illnesses. The mentioned authors conclude that the symptoms of increased anxiety and stress, obsessive-compulsive disorder, as well as depression are increasingly detected in the environment of young students.

COVID-19 has left immense psychological impact on the students subjective well-being. There are a great number of studies that have been carried out with the aim to explore the relations between a mental wellbeing and distress during the pandemic (e.g. Gray et al., 2020).

The purpose of this article: to characterize the level of subjective well-being of Rēzekne Academy of Technology (RTA) students, as well as to determine the most important factors determining the happiness of young students in connection with certain demographic factors.

The analysis of scientific literature and empirical results were used as the basic methods in the creation of the article.

Treatment of subjective well-being in contemporary positive psychology

In a number of national contexts subjective wellbeing is considered as a significant aspect of individuals' life. Individuals with higher level of subjective well-being can cope better with the anxiety and difficulties at work and stressful situation at work (The World Health Organization, 2020).

The issue of subjective well-being is comprehensively studied within the framework of positive psychology. Here we can single out such authors as F. Andrews and S. Whitey (Andrews, & Whitey, 1976), E. Diener (Diener, 1984), R. Emmons (Emmons, & Diener, 1985), M. Argyle (Argyle, 2003), D. Myers (Myers, & Diener, 1996), R. Venhoven (Veenhoven, 2005), D. Kahneman (Kahneman, 2010), M. Seligman (Seligman, 2012), R. Lucas (Lucas, 2008).

In addition, the study of happiness is represented in many empirical studies (Lyubomirsky, 2005; Nix, Ryan, Manly, Deci, 1999; Diener, Seligman, 2002; Stevenson, Wolfers, 2008; Burns, Machin, 2010; etc.).

The planned empirical studies of the subjective well-being of young students will be based on the hedonistic tradition of the mentioned phenomenon. Many positive psychology paradigms were developed within this tradition. The theoretical basis of the research on the feeling of happiness of young people studied in this article is made up of Andrews, & Withey, 1976, Argyle, 2003, Seligman, 2011, Diener et.al., 1999, according to which the feeling of happiness is treated as satisfaction with life in general, dominance of positive emotions over negative ones and satisfaction with one's life in time perspective (see Fig. 1).

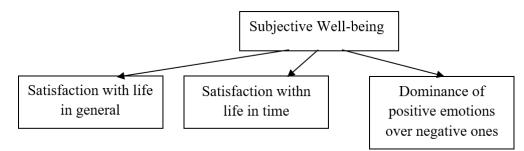


Figure 1 The components of happiness (Argyle, 2003)

E. Diener formulates three areas of the feeling of happiness: 14 emotional responses of individuals, satisfaction in various areas of life and global evaluation of life. Within such a structure, the author distinguishes the components of well-being contained in Table 1.

Table 1 The structure of the components of the feeling of happiness (Diener et.al., 1999)

Positive affects	Negative affects	Satisfaction with life	Satisfaction in various areas of life
Joy	Feeling of guilt and shame	Desire to change the life	Work
Delight	Sadness	Satisfaction with the life	Family
Sense of satisfaction	Anxiety and disturbance	Satisfaction with past	Leisure
Pride	Anger	Satisfaction with future	Health
Affection	Stress	Satisfaction with other people's view of a person's life	Finance
Happiness	Depression	Reluctance to change life	Individual himself
Rapture	Envy	A sense of fulfillment in life	Individual' s group

A high level of happiness reflects the predominance of positive emotions and cognitive attitudes. The cognitive component of the feeling of happiness, or life satisfaction, is based on specific sources of satisfaction, such as work, marriage and other areas. The basis of the

emotional component of subjective well-being is the positive emotional evaluation of events by individuals in the long term. On the other hand, it is typical for individuals with a low level of happiness to evaluate personal life events as unpleasant, which cause negative emotions - anxiety, depression, anger, etc. (e.g. Gray et al., 2020).

In the following, the factors affecting subjective well-being are analyzed, applying them to the study process in the higher education institution.

Analysis of demographic and social determinants of students' subjective well-being

According to a worldwide study (Akhtar, 2015; Baik et al., 2015; Bexley et al., 2013; Burns, Machin, 2010; Cvetkovski et al., 2012; Larcombe et al., 2015; Lerkkanen et al., 2018; Nepomuceno et al., 2016; Ryff, 2017; Sarokhani et al., 2013; etc.) meta-analysis, it is possible to establish that there is a large number of diversity of factors affecting subjective well-being. The main findings of the mentioned studies are described below.

Subjective well-being is often associated with demographic factors (Lee et al., 2016), certain personality qualities (Dangi, Nagle, 2015), and socio-economic conditions (Boyce et al., 2010; Lee et al., 2016). This article analyzes the most important factors influencing the subjective well-being of young students. The mentioned factors were classified into 2 groups.

In the following, an analysis of the factors that influence the subjective well-being of young students is carried out.

When characterizing the characteristics of subjective well-being in groups of different *genders*, it is possible to establish that women, in general, are characterized by a higher level of subjective well-being. Women are able to form an emotionally "deeper" contact with people, thus enabling the necessary emotional exchange, which positively affects the everyday emotional background. In addition, it is recognized that women are capable of feeling stronger emotions than men - thus also joy and other positive emotions, which positively affect their psychological well-being (Burns, Machin, 2010).

However, recent studies in the student environment do not find significant differences between the level of subjective well-being of men and women (Akhtar, 2015).

The correlation between an *individual's age* and their sense of happiness is moderate (Argyle, 2003). Differences in the understanding of the phenomenon of happiness of people of different ages were found, as well as in highly developed countries, a general trend related to the increase in life satisfaction with age was found. In the period between the ages of 25 and 43, positive emotions rise - people become more and more satisfied with life and happier, the proportion of negative emotions decreases (Blanchflower & Oswald, 2008). Such a tendency is explained by the fact that the gap between what a person wants and what he has achieved decreases with age.

The results of studies regarding the influence of the *place of residence* (rural or urban) on subjective well-being, conducted in different countries, are relatively contradictory. In a US study of 1,200 respondents from rural and urban areas, it was found that urban residents were characterized by a higher level of subjective well-being (Tommis et al., 2007).

On the other hand, a study conducted in Brazil involving 417 respondents from rural and urban communities determined that urban residents were characterized by higher levels of mental disorders and lower subjective well-being (Nepomuceno et al., 2016).

At the beginning and middle of the 20th century, it was a popular idea that the urban environment worsened the mental health of the population. However, empirical studies on the effects of specific urban factors on mental and physical health did not confirm a statistically significant relationship between urban living and poorer health (Shaw et al., 2002).

The status of health is treated both as a cause of well-being and as a consequence of this phenomenon. A meta-analysis by H. Roslaba and co-authors showed that the correlation

between health status and subjective well-being is within 0.32. It was found that this correlation tends to increase when subjective health criteria (subjective assessment of one's health status) are used (Roslaba et al., 2017).

There is a link between subjective well-being and the existence of certain diseases, especially if these diseases significantly limit a person's capabilities (Roslaba et al., 2017). In a student environment, it has been found that the prevalence of depression and the deterioration of subjective well-being are often associated with unhealthy behaviors such as alcohol consumption, low physical activity, poor diet, unhealthy daily routines, and high levels of stress (Schofield et al., 2016).

Social relations are a very important factor influencing the subjective well-being of students. It has been studied that the social activity of young people has a positive effect on their sense of happiness, as it develops the social competence of young people and performs social support functions (Demir, 2010; Lerkkanen et al., 2018).

The existence of social relations is also very relevant in the process of youth identity formation, as it helps to understand oneself and provides the necessary support. At this age, the sense of belonging to one's student group increases the subjective well-being of students, and the diversity and number of social groups is also important. On the other hand, social isolation and insufficient public support are associated with various diseases and even a decrease in life expectancy (Demir, 2010; Lerkkanen et al., 2018).

However, nowadays many young people do not form close social relationships with fellow students, feel socially isolated and often graduate from a higher education institution without making new friends (Baik et al., 2015).

Students' subjective well-being is also influenced by their *material condition*: to what extent the student is satisfied or dissatisfied with it. It is acknowledged that participation in higher education has never been more expensive for young people studying than it is today. For many young people, the direct and indirect costs of studying are a major source of stress (Bexley et al., 2013).

Due to poor financial security, many students are forced to work low-skilled jobs in addition to their studies. In such circumstances, there is often not enough time to prepare for seminars, tests or exams. This creates additional psychological stress, impairing subjective well-being (Bexley et al., 2013).

In the last decade, students' sense of uncertainty about the value of the education obtained at the higher educational institution in the labor market has been increasing. Students are aware that only obtaining a higher education is no longer enough to ensure a competitive remuneration for the work done. This creates additional psychological pressure and increases students' stress level (Ibrahim et al., 2013; Sarokhani et al., 2013).

It has been established that students' *living conditions* can significantly affect their subjective well-being (Larcombe et al., 2015). Those students who live in dormitories are affected by the number of fellow students in one living space, relationships with roommates, physical factors such as unwanted, uncontrollable noises, as well as the air temperature in the rooms. Too many roommates, low or too high air temperature, uncontrollable noises, unpleasant behavior of roommates were determined to be the main factors that lower the subjective well-being of students by increasing the level of neuroticism (Larcombe et al., 2015). On the other hand, reliable, friendly relations with roommates, the existence of a private room, the possibility of resolving conflict situations in a civilized manner are factors that favorably affect the subjective well-being of students in dormitories. It should be noted that living in dormitories promotes a sense of belonging to one's student community (Özdemir & Tuncay, 2008).

Those students who live in separate apartments are protected from many negative living conditions of dormitories, but they are often unable to fully integrate into their student group (Özdemir & Tuncay, 2008).

The subjective well-being of young students is also influenced by the existence and *content of free time*. Of all the ways of spending free time, belonging to certain interest groups and physical culture and sports have the most beneficial effect on the student. The positive effect of belonging to certain interest groups on the student's sense of happiness is explained by the fact that the diversity of lessons in different social groups satisfies people's social needs, during the lessons one gets pleasure from successfully performing various activities and overcoming difficulties (Molina-Garcia et al., 2011). On the other hand, sports activities increase the level of endorphins, which are responsible for the emergence of inner comfort and well-being (Havkins, Foose, Binkley, 2004).

Lack of free time, or activities imposed by fellow students, as well as negative content of free time (common use of alcohol or other psychoactive substances, frequent visits to nightclubs, or inactivity) negatively affect students' physical health, value system, as well as subjective well-being (Molina-Garcia et al., 2011).

The study process places high demands on the plasticity of the psyche and physiology of young people. Upon entering a higher education institution, a student is forced to adapt to a complex of new factors characteristic of higher education. The most important of them are studying the study program, relations with the academic staff, professional identification and relations with fellow students. These factors determine that throughout the study period young people are exposed to significant psychological stress, which is significantly higher for students than for young people of other social groups (Cvetkovski et al., 2012).

It has been established that the cognitive and emotional stress of students will increase dramatically during the knowledge test sessions, and physical health may also deteriorate (Eisenberg et al., 2009).

The subjective well-being of students is also affected by the hygienic conditions of the study process: considerable time in front of the computer monitor, being in a poorly ventilated room, a large number of students in the auditorium. The mental health and subjective well-being of young students are also negatively affected by a constant lack of time, low physical activity, violation of a rational daily routine (diet and sleep) (Slavin et al., 2014).

In addition, the first-year students' sense of happiness is also affected by experiences related to leaving the usual school environment, doubts about the correct choice of profession, insufficient skills to regulate behavior and activities, as well as the lack of skills to organize optimal academic work and leisure time (Baik et al., 2015).

Taking into account the above-mentioned findings, the following empirical studies intend to determine the influence of the study environment of RTA on the subjective well-being of students.

Research design

Respondents from RTA Faculty of Economics and Management, Engineering and Education, Languages and Design were involved in the research. Participation in the study was voluntary. The total size of the research sample: 75 respondents.

Respondents were stratified by gender and age (see Table 2).

Table 2 Demographic characteristics of the research sample (created by the author)

Demographic parameters		Number of selected respondents (N)	Percentage of selected respondents (%)
Gender	Men	31	42
	Women	44	58
Age	18 - 20	53	70
	21 - 35	16	22
	36 - 40	6	8

One of the most widely used methodologies for researching the level of subjective wellbeing is the "Oxford Happiness Questionnaire" (Hills, Argyle, 2002; adapted from: Kalvāns, Ignatjeva, 2011), which was developed by M. Argyle and P. Hills at Oxford University. This methodology was created with the aim of quantitatively assessing the overall level of an individual's feeling of happiness.

This survey was used in most of the happiness studies conducted at Oxford. The overall reliability of this methodology is very high (α =.91) (Hills, Argyle, 2002).

It should be noted that future studies are planned, in which the qualitative (content) aspects of the feeling of happiness of young students will be studied with the help of the Oxford happiness survey.

In order to identify the factors influencing the subjective well-being of young students, a survey created by the author of this article was used, in which students were offered to freely name the 5 main factors that currently significantly affect their sense of happiness. In addition, these factors were proposed to be ranked according to their importance.

The results obtained with the help of the mentioned methodologies are analyzed below.

Analysis of the research results

The research results are analyzed using the average values of the obtained empirical data. The qualitative interpretation of the results was realized according to the instructions of the Oxford happiness survey (see Table 3).

Scored points according to the test	Content interpretation of the obtained quantitative data
1-2	Unhappy
2,1-3	A little unhappy
3,1-4	Not happy, not unhappy
4,1-5	Quite happy
5,1-6	Very happy

Table 3 Qualitative interpretation of empirical data (created by the autor)

In the first stage of the study, the overall level of subjective well-being in the entire respondent group (n=75) was determined. According to the obtained results, the overall level of the studied phenomenon corresponds to an average value of 3.9. According to the methodology instruction, the subjective well-being level of the researched RTA student group can be interpreted as: "Not happy not unhappy", which can be interpreted as a borderline state between a reduced and sufficient level of subjective well-being.

In the next stage, the level of subjective well-being in the gender groups of the respondents is compared (see Figure 2).

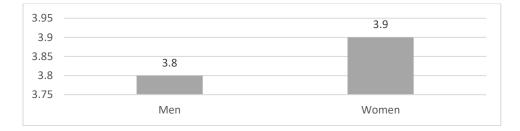


Figure 2 The level of subjective well-being of students in different gender groups (created by the autor)

As can be seen in Figure 2, the average level of subjective well-being of men and women corresponds to values of 3.8 and 3.9, respectively. Such a level can be described as a boundary level between insufficient and sufficient subjective well-being. In addition, no significant differences were found in the level of subjective well-being between groups of different genders. A slightly higher average level of the mentioned phenomenon in the female group can be explained by the larger number of female respondents in the research sample.

More detailed content interpretation of the levels of the respondents' feeling of happiness in the groups of male and female respondents is illustrated in Figure 3.

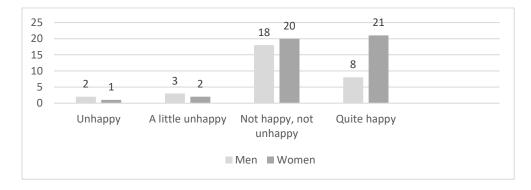


Figure 3 Content interpretation of respondents' subjective well-being (created by the autor)

The lowest number of respondents was found in the "Unhappy" group, which is characterized by markedly insufficient subjective well-being.

The highest number of female respondents was found in the group "Quite happy", followed by the group "Not happy, not unhappy".

On the other hand, among male respondents there is a group characterized by a borderline state between sufficient and insufficient subjective well-being, followed by a group with a sufficient level of subjective well-being.

In the "Slightly unhappy" group, which is characterized by reduced subjective wellbeing, there is a slight dominance of men over female respondents.

In the next stage of the research, the factors influencing the subjective well-being of students were determined, which are summarized in Figure 4.

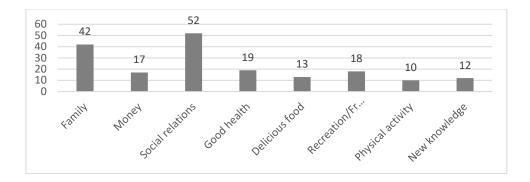


Figure 4 The main factors influencing the subjective well-being of students (created by the autor)

In the course of the research, it was noted that the subjective well-being of students is influenced by the following factors: family relations, material condition, social relations, good health, delicious food, availability of rest/free time, physical activity and learning new knowledge.

As the most important factor, students mention social relations, which presupposes the existence of friends, as well as involvement in diverse social activities.

The next most important factor is having family/a good family relationship.

Good health plays an important role in ensuring the subjective well-being of young students. The next most important factor is meaningful leisure time, which includes rest.

Material security is quite important in ensuring the subjective well-being of students.

Additional factors are mentioned: delicious food, opportunity to learn new knowledge and physical activity.

In the final stage of the research, the factors determining the subjective well-being of students in different gender groups were analyzed.

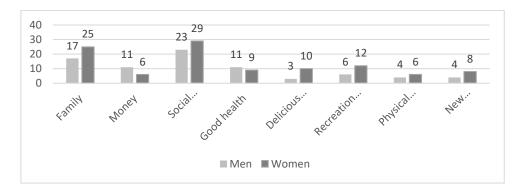


Figure 5 The main factors affecting the subjective well-being in the gender groups of the respondents (created by the autor)

As can be seen in Figure 5, the most important factor in the group of both women and men is social relations and their quality. Having a good family/family relationship is the next most significant factor in both gender groups.

Material condition and good health in the group of men are evaluated as the next most important factor determining subjective well-being, while women mention the factor "Recreation/free time".

It is possible to find that material condition and good health are more important for men than for women. On the other hand, women value mental nutrition, physical activity and learning new knowledge more highly.

Conclusions

In the course of the realization of scientific literature and empirical research, the author came to the following conclusions:

- 1. The subjective well-being of RTA students is characterized by the boundary level between sufficient and insufficient subjective well-being (51% of respondents).
- 2. A sufficient level of subjective well-being, according to the interpretation of the Oxford happiness questionnaire, was found in 37% of respondents.
- 3. The obtained results highlight necessity of conducting further research of subjective well-being and its determining factors, paying attention to the research of factors related to the study process.
- 4. No significant differences in the level of subjective well-being were found in the groups of female and male respondents.
- 5. The most important factors that determine the subjective well-being of the respondents of the study sample are: meaningful social relations, good family relations and good health.
- 6. Good health and material condition are evaluated as equally important in the group of male respondents.
- 7. Women attach more importance to the existence and quality of free time.
- 8. Men give the least importance to the factor "Tasty food", while women to the factor "Material condition".

References

- Akhtar, S. (2015). Psychological Well-being in Students of Gender difference. *The Interna tional Journal of Indian Psychology*, 2(4),153-161.
- Andrews, F.M. & Withey, S.B. (1976). Social indicators of well-being: America's perception of life quality. NY: Plenum Press.
- Anic, P. & Tončić, M. (2013). Orientations to Happiness, Subjective Well-being and Life Goals. *Psihologijske Teme*, 22(1),135–153. Retrieved from https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=03a7968c-2295-447a-8380-bcaf25bca7df%40redis
- Argyle, M. (2003). Causes and Correlates of Happiness, In D. Kahneman, E. Diener, & N. Schwarz (Eds.). Well being: The foundations of hedonic psychology, 353-373.
- Baik, C., Naylor, R., & Arkoudis, S. (2015). *The first year experience in Australian universities: Findings from two decades, 1994-2014.* Melbourne, Australia: Melbourne Centre for the Study of Education.
- Bexley, E., Daroesman, S., Arkoudis, S., & James, R. (2013). University Student Finances in 2012: A Study of the Financial Circumstances of Domestic and International Students in Australia's Universities. Canberra: Universities Australia.
- Blanchflower, D.G. & Oswald, A.J. (2008). Is wellbeing U-shaped over the life-cycle? *Social Science & Medicine*, 66, 1733-1749. DOI: <u>https://doi.org/10.1016/j.socscimed.2008.01.030</u>
- Boyce, C. J., Brown, G. D. A., & Moore, S. C. (2010). Money and happiness: rank of ncome, not income, affects life satisfaction. *Psychological Sciences*, 21(4), 471–475. DOI: <u>https://doi.org/10.1177/0956797610362671</u>
- Burns, R.A. & Machin, M.A. (2010). Identifying gender differences in the independent effects of personality and psychological well-being on two broad affect components of subjective well-being. *Personality and Individidual Differences*, 48(1), 22–27. DOI: <u>https://doi.org/10.1016/j.paid.2009.08.007</u>
- Cvetkovski, S., Reavley, N. J., & Jorm, A. F. (2012). The prevalence and correlates of psychological distress in Australian tertiary students compared to their community peers. *Australian and New Zealand Journal of Psychiatry*, 46(5), 457-467. DOI: <u>https://doi.org/10.1177/0004867411435290</u>
- Dangi, S. & Nagle, Y.K. (2015) Personality Factors as Determinants of Psychological Well Being Among Adolescents. *Indian Journal of Health and Wellbeing*, 6(4), 369-373.
- Demir, M. (2010). Close relationships and happiness among emerging adults. *Journal of Happiness Studies, 11*, 293–313. DOI 10.1007/s10902-009-9141-x
- Diener, E. (1984). Subjective Well-being. *Psychological Bulletin*, 95(3), 542-575. DOI: https://psycnet.apa.org/doi/10.1037/0033-2909.95.3.542

- Diener, E., & Seligman, M.E.P. (2002). Very happy people. *Psychological Science*, 13, 81–84. DOI: https://doi.org/10.1111/1467-9280.00415
- Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.L. (1999), Subjective well-being: Three decades of progress. *Psychological Bulletin*, 2, 276 – 302. DOI: <u>https://psycnet.apa.org/doi/10.1037/0033-2909.125.2.276</u>
- Eisenberg, D., Golberstein, E., & Hunt, J.B. (2009). Mental Health and Academic Success in College.*The B.E. Journal of Economic Analysis & Policy*, 9(1). DOI: <u>https://doi.org/10.2202/1935-1682.2191</u>
- Ibrahim, A.K., Kelly, S.J., Adams, C.E., & Glazebrook, C. (2013). A systematic review of studies. *Journal of Social Work Education and Practice*, *3*(2),79-89.
- Emmons, R. A. (2004). The Psychology of Gratitude: An Introduction. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 3–16). Oxford University Press. DOI: <u>https://doi.org/10.1093/acprof:oso/9780195150100.003.0001</u>
- Emmons, R. A., & Diener, E. (1985). Personality correlates of subjective well-being. *Personality and Social Psychology Bulletin*, 11, 89-97. DOI: <u>https://doi.org/10.1177/0146167285111008</u>
- Gray, N.S., O'Connor, C., Knowles, J., Pink, Simkiss, J. Williams, N., & Snowden, R.J. (2020). The Influence of the COVID-19 Pandemic on mental well-being and psychological distress: Impact upon a single country. *Frontline Psychiatry*, 11. DOI: <u>https://doi.org/10.3389/fpsyt.2020.594115</u>
- Hawkins, B., Foose, A.K., & Binkley, A.L. (2004). Contribution of leisure to the life satisfaction of older adults in Australia and the United States. World Leisure Journal, 46(2), 4-12. DOI: <u>https://doi.org/10.1080/04419057.2004.9674353</u>
- Hills, P. & Argyle, M. (2002). The Oxford Happiness Questionnaire: a compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, 33, 1073–1082. DOI: https://doi.org/10.1016/S0191-8869(01)00213-6
- Larcombe, W., Finch, S., Sore, R., Murray, C.M., Kentish, S., Mulder, R.A., Baik, C., Toklatilidis, O., & Williams, D. (2015). Prevalence and socio-demographic correlates of psychological distress among students at an Australian university. *Studies in Higher Education*, 1-18. DOI: https://doi.org/10.1080/03075079.2014.966072
- Lee, Y. H.; Ahmadi, F.; Choi, D. Y.; Kwak, W. S. (2016). In situ ruminal degradation characteristics of dry matter and crude protein from dried corn, high-protein corn, and wheat distillers grains. J. Anim. Science Technology, 58, 33. DOI: <u>https://doi.org/10.1186/s40781-016-0115-3</u>
- Lerkkanen, M., Nurmi, J., Vasalampi, K., Virtanen, T., & Torppa, M. (2018). Changes in students' psychological well-being during transition from primary school to lower secondary school: a person-centered approach. *Learning and Individual Differences*, 69, 138–149. DOI: <u>https://doi.org/10.1016/j.lindif.2018.12.001</u>
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing Happiness: The Architecture of Sustainable Change. *Review of General Psychology*, 9(2), 111-131. DOI: <u>https://doi.org/10.1037/1089-2680.9.2.111</u>
- Lucas, R. E. (2008). Personality and Subjective Well-Being. *The Science of Subjective Well-Being*. M. Eid and R. J. Larsen (Eds.), New York: Guilford Press: 171-194.
- Myers, D. G. & Diener, E. (1996). The pursuit of happiness. Scientific American, 54-59.
- Molina-García, J. & Castillo, I. (2011). Leisure-Time Physical Activity and Psychological Well-Being in University Students. *Psychological Reports*, 109(2), 157-169. DOI: https://doi.org/10.2466/06.10.13.PR0.109.5.453-460
- Nepomuceno, B.B, Cardoso, A.A, Ximenes, V.M, Barros, J.P, & Leite, J.F. (2016). Mental health, well-being, and poverty: A study in urban and rural communities in Northeastern Brazil. *Journal of Prevention & Interview in the Community*, 44(1), 63-75. DOI: <u>https://doi.org/10.1080/10852352.2016.1102590</u>
- Nix, G. A., Ryan, R. M., Manly, J. B., & Deci E. L. (1999). Revitalization through self-regulation: The effects of autonomous and controlled motivation on happiness and vitality. *Journal of Experimental Social Psychology*, 35(3), 266–284. DOI: <u>https://doi.org/10.1006/jesp.1999.1382</u>
- Özdemir, U. & Tuncay, T. (2008). Correlates of loneliness among university students. *Child and Adolescence Psychiatry and Mental Health*, 2, 29–39. DOI: <u>https://doi.org/10.1186/1753-2000-2-29</u>
- Rosalba, H., Bassett, S.M., & Moskowitz, J.T. (2017). Psychological Well-Being and Physical Health: Associations, Mechanisms, and Future Directions. *Emotion Review*, 10(1), 245-261. <u>https://doi.org/10.1177/1754073917697824</u>
- Ryff, C.D. (2017). Eudaimonic well-being, inequality, and health: recent findings and future directions. *International Review of Economics*, 64, 159–178. DOI: <u>https://doi.org/10.1007/s12232-017-0277-4</u>
- Sarokhani, D., Delpisheh, A., Veisani, Y., Sarokhani, M.T., Manesh, R.E., & Sayehmiri, K. (2013). Prevalence of depression among university students: a systematic review and meta-analysis study. *Depression research* and treatment, 373-857. DOI: <u>https://doi.org/10.1155/2013/373857</u>
- Schofield, M.J., Halloran, P., McLean, S.A., Knauss, F.C., & Paxton, S.J. (2016). Depressive symptoms among Australian university students: Who is at risk?. *Australian Psychologist*, 51(2). DOI: <u>https://doi.org/10.1155/2013/373857</u>

- Seligman, M. E. P. (2011). Flourish: A Visionary New Understanding of Happiness and Well-being. New York: Free Press.
- Shaw, M., Dorling D., & Mitchell, R. (2002). Health, Place and Society. Pearson: London.
- Slavin, S.J., Schindler, D.L., & Chibnall, J.T. (2014). Medical student mental health 3.0: improving student wellness through curricular changes. *Academic Medicine*, 89(4), 573-577. DOI: <u>https://doi.org/10.1097%2FACM.00000000000166</u>
- Stevenson, B. & Wolfers, J. (2008). Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox. *Brookings Papers on Economic Activity*, 1-87. Retrieved from <u>https://www.nber.org/papers/w14282</u>
- Tommis, Y., Seddon, D., Woods, B., Robinson, C.A., Reeves, C., & Russell, I.T. (2007).Rural-urban differences in the effects on mental well-being of caring for people with stroke or dementia. *Aging Ment Health*, *11*(6),743-50. DOI: <u>https://doi.org/10.1080/13607860701365972</u>
- Veenhoven, R. (2005). Is Life Getting Better? How Long and Happily Do People Live in Modern Society ? *European Psychologist*, 10(4), 330–343. DOI: <u>https://doi.org/10.1027/1016-9040.10.4.330</u>
- Viejo, C., Gómez-López, M., & Ortega-Ruiz, R. (2018). Adolescents' psychological well-being: a multidimensional measure. *International Journal of Environmental Research and Public Health*, 15(10), 23-25. DOI: <u>https://doi.org/10.3390/ijerph15102325</u>
- World Health Organization (2020). *Mental health and psychosocial considerations during the COVID-19 outbreak*. Retrieved from <u>https://www.who.int/publications-detail/mental-health-and-psychosocial-</u> <u>considerations-during-the-covid-19-outbreak</u>