Impact of Online Education on Students' Wellbeing

Simona ŞUŞNEA (1), Ioan ŞUŞNEA (2)
(1) "Alexandru Ioan Cuza" University of Iasi, Romania
(2) " Dunărea de Jos" University of Galati, Romania
e-mail: (1) susneasimona@gmail.com,
(2) ioan.susnea@ugal.ro

Abstract: During the Covid-19 pandemic, most educational activities moved from classroom-based to online for extended periods of time, raising questions about the possible negative impact on the students' (and teachers') health and wellbeing, as well as on the educational outcomes. The study described in this paper started with the assumption that the time spent online is a measure of the changes induced by the pandemic in the structure of students' daily life activities, and tried to find correlations between this variable and their subjective and psychological wellbeing. Participants were 98 students with ages between 14 and 21 from Romania. We found that, contrary to the common belief, there is no correlation between the increased amounts of time spent online and lower levels of the students' wellbeing. This is most likely due to the fact that most adolescents already used to spend a lot of time online even before the lockdown. We conclude with a defense of online education, which – in our opinion - should not be held responsible for the decline of the students' wellbeing during the Covid-19 lockdown.

Keywords*:* Online education; students' wellbeing; Covid-19 pandemic

1. Introduction

1.1 Context and objectives of this study

The abrupt shift to online education during Covid-19 pandemic raised concerns about the possible decline of the quality of the educational activity (Daniel, 2020) and of the wellbeing of the students and teachers (Kecojevic et al., 2020). Since wellbeing is "the ultimate dependent variable in social science" (Helliwell & Putnam, 2004) and a major factor of the academic achievements (Berger et al., 2011), it is not without interest to explore the possible correlation between the extensive participation to online educational activities and the students' wellbeing. In this context, the objectives of the present study are:

- O1. To obtain a clear descriptive image of the amount and the quality of the time spent online by the students.
- O2. To answer the question whether the abrupt transition to online education produced detectable effects on the wellbeing of the students.

1.2 Conceptual boundaries

Although the concept of wellbeing has a long history – the first attempt to define it can be found in the Ethics of Aristotle, who coined the term "eudaimonia", seen as an ideal condition of human flourishing – recent literature abounds with studies on related concepts such as "happiness", "flourishing", or "thriving" (see, Keyes, 2010; Disabato et al., 2016).

- *Subjective wellbeing* - defined with respect to the hedonistic principle of the constant pursuit of pleasure/happiness – with two components:
  - The evaluation of the overall satisfaction with one's own life.
  - The affective balance, evaluated by comparing the levels of positive vs negative affects (Andrews & Withey, 1976; Campbell et al., 1976; Diener & Emmons, 1984).
- *Psychological wellbeing* – a concept closer to initial meaning of eudaimonia – according to which the wellbeing is more like a trend of personal evolution in a social context, rather than a state. In this approach, the wellbeing is based on six pillars: autonomy, personal development, positive relations with others, meaningful life, feeling of being in control over the environment, and self acceptance (see Ryff, 1989; Antonelli & Cucconi, 1998; Lindfors et al., 2006; Van Dierendonck, 2004).

Although these concepts are defined mainly with respect to the adult population, there are studies that prove their validity in the self-evaluation of the wellbeing of children (Amerijckx & Humblet, 2014; Ben-Arieh et al., 2014; Huebner, 2014). Variants of the Ryff scale adapted for adolescents were proposed in (Loera-Malvaez et al., 2017) and (Viejo et al., 2018). These have four subscales targeting the following dimensions of wellbeing: self-acceptance, positive relations with others, autonomy, and personal development.

Many other studies emphasize the link between the subjective wellbeing and the physical health (Kyriopoulos, et al., 2018), work productivity (Hafner et al., 2015), success (Erdogan et al., 2012), satisfaction at work (Song et al., 2020), professional performance, and absenteeism (Man, M. & Ticu, C., 2015). A general finding of these studies is that higher

levels of wellbeing positively correlate with health and performance at the workplace, whatever that may be.

2. Method

The present study is descriptive – correlational.

2.1 Participants

The research involved a number of 98 participants, randomly selected, with ages between 14 and 21 years. Among them, 61 were students in the VIII'th grade of a secondary school in Galati, Romania, and 37 were undergraduate students at the Department of Computer and Information Technology of the University Dunarea de Jos, of Galati (49% females and 51% males).

The study took place on in April 2021, during the Covid-19 lockdown, when all the educational activities were carried on online.

Data collection was carried on using Google forms.

2.2 Instruments

For the descriptive analysis of the amount and the quality of time spent online by the students, we have used a questionnaire with three items as follows:

(1) How many hours (on average) do you spend online (connected to the Internet) every day, regardless of the type of the device used (laptop computer, tablet PC, smartphone, or smart-TV)?
(2) How many hours (on average) do you spend online doing one of the following activities: communicate with family or friends, posting or viewing posts on social media, playing games, reading news, shopping online, watching videos or listening music or podcasts, gathering information for school related tasks?
(3) How many hours (on average) do you spend in front of a screen performing one or more of the following activities: writing a blog or a diary, creating or editing a web site, creating or editing multimedia content (music or videos), digital art (e.g. drawings, photography), mobile applications, other software, gathering information related to a personal hobby?

Questions (2) and (3) were included with the aim to determine the quality (active/passive) of the time spent online, considering that activities like viewing posts on social media define a passive mode of spending time, while activities like creating and updating a personal blog, web site, etc. indicate an active mode of using the time.

For the evaluation of the psychological wellbeing, we have used the Brief Psychological Wellbeing Scale for Adolescents (BSPWB-A) – a shorter variant of the Ryff scale, adapted for adolescents by Carmen Viejo et al. (2018). This version contains 20 items, grouped in four sub-scales with the

focus on self-acceptance, positive relations with others, autonomy, and personal development.

The participants are asked to indicate, using a six point Likert scale, to what degree they agree with statements like: "*In general, I feel proud of who I am and the life I lead*", or "*I feel that my friends bring me a lot of things*". For the Romanian translation of this scale, we computed the Cronbach alpha coefficients for each subscale, as shown in Table 1.

Table 1. Cronbach alpha for the Romanian version of the scale BSPWB-A

Subscale	Cronbach alpha
Self-acceptance	0.85
Positive relations with others	0.61
Autonomy	0.85
Personal development	0.76

For the evaluation of the subjective wellbeing, we used Australian Unity Wellbeing Index (Cummings, 2003) – a scale with 8 items aimed to measure the level of satisfaction regarding various aspects of the respondents' life: health, housing conditions, personal achievements, adherence to certain social groups, the feeling of security about the future, the quality of interpersonal relationships.

The Cronbach alpha coefficient for the Romanian version of this scale was 0.85.

3. Results

3.1 Descriptive analysis of the time spent online

The charts depicted in figures 1 to 9 contain a detailed description of the amount and the quality (active/passive) of time spent online by the participants in our experiment.

The average values for the secondary school and undergraduate students are listed in Table2. The participants spent on average over 7 hours per day online.

Table 2. Average values of the active/passive time spent online by secondary school/undergraduate students

	Average active time spent online (hrs/day)	**Average passive time spent online (hrs/day)**
Secondary school students	3.18	4.88
Undergraduate students	4.36	5.57

This value may seem excessive for normal times, but it is understandable, considering the fact that, at the moment of the experiment, all the educational activities were carried on online, taking at least 3-4 hours per day.

We found no significant gender differences in what concerns the average time spent online.

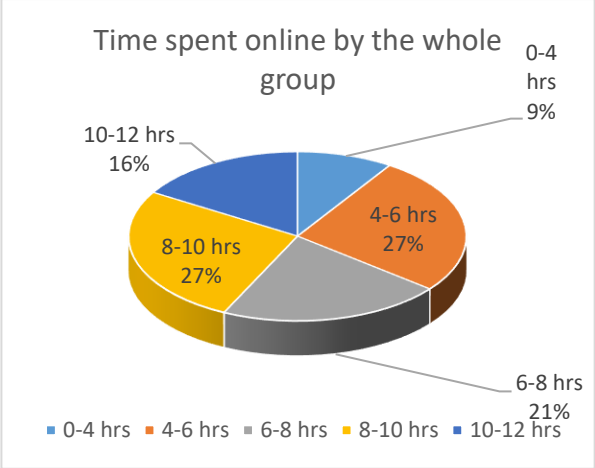

Fig.1 Total time spent online by the entire group

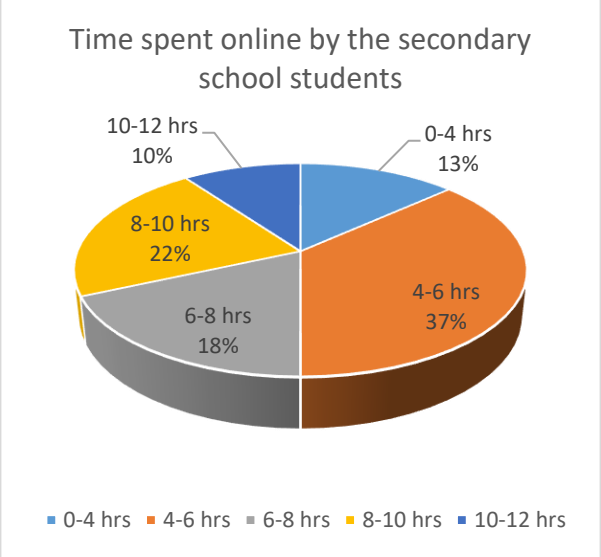

Fig. 2 Time spent online by the secondary school students

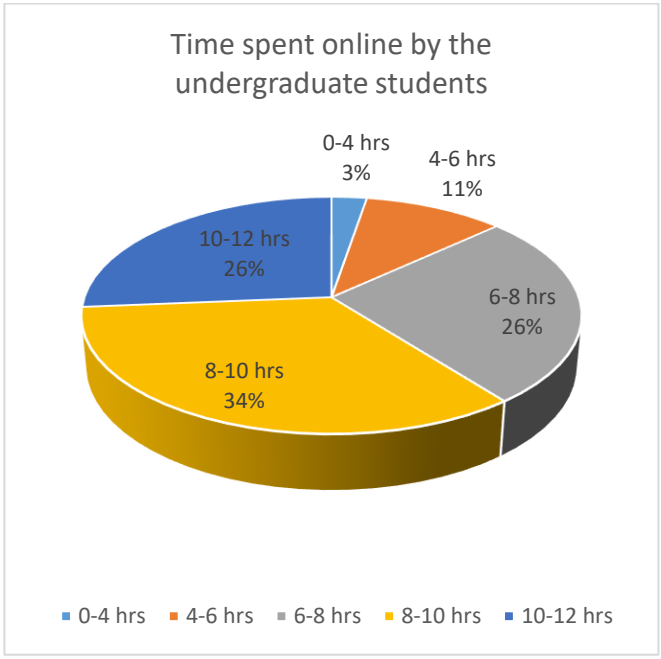

Fig. 3 Time spent online by undergraduate students

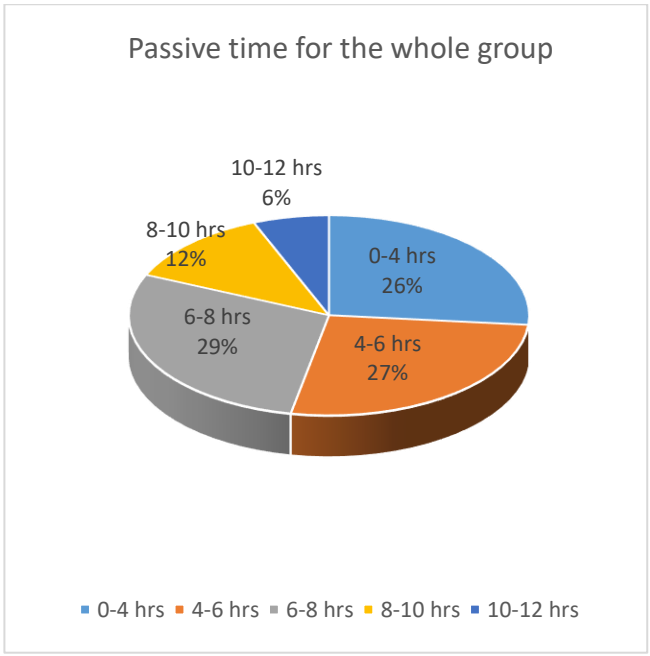

Fig. 4 Passive time spent online for the entire group

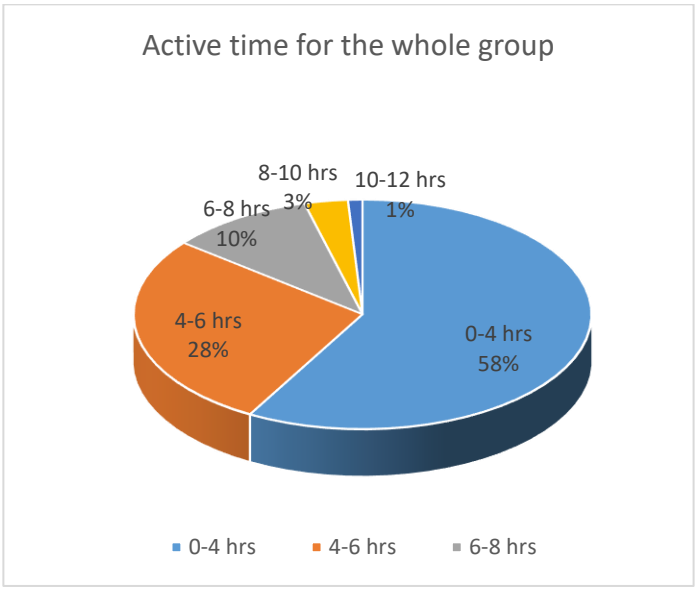

Fig. 5 Active time spent online for the entire group

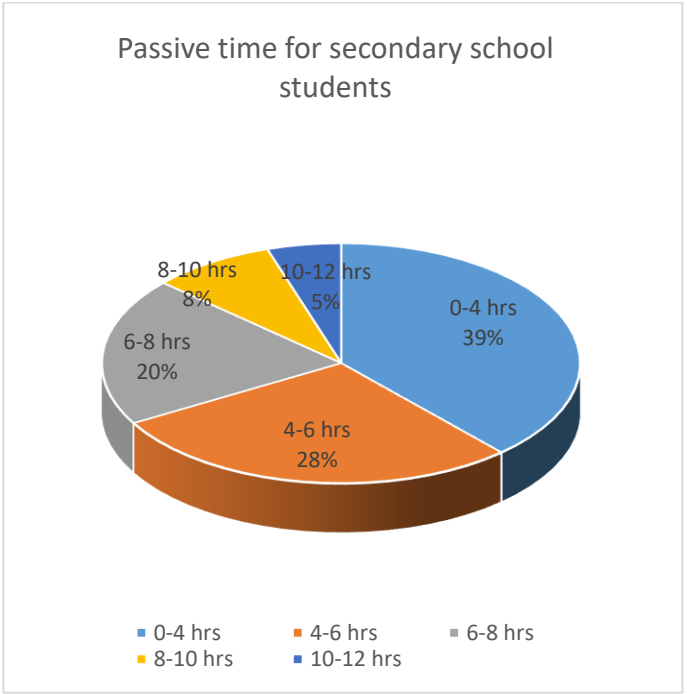

Fig. 6 Passive time for secondary school students

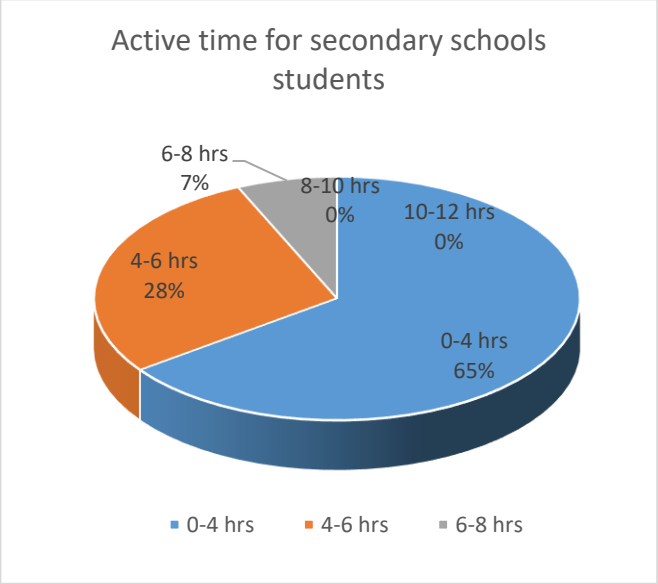

Fig. 7 Active time for secondary school students

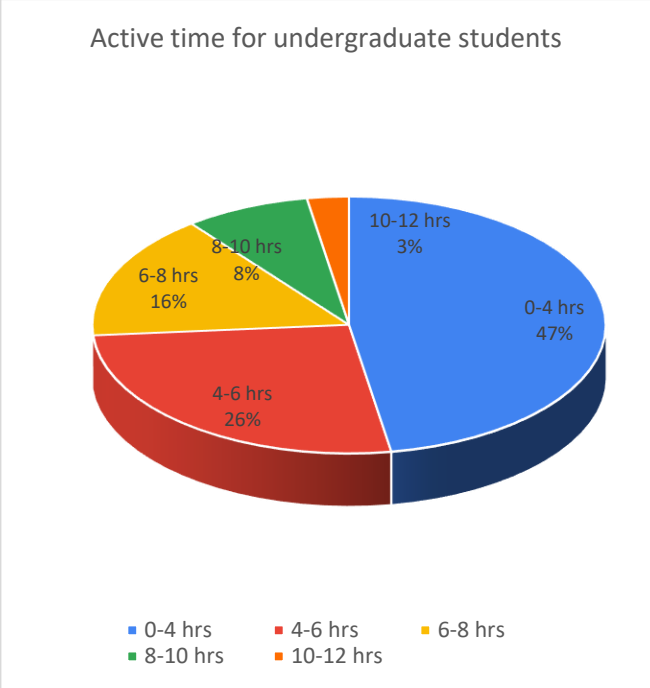

Fig. 8 Active time for undergraduate students

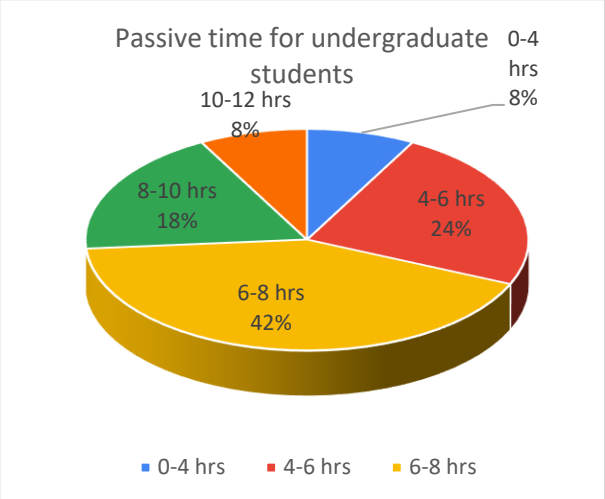

Fig. 9 Passive time for undergraduate students

3.2 Results regarding the psychological and subjective wellbeing

The average scores measured with the wellbeing scales are shown in Table 3.

Table 3. Average values of the psychological and subjective wellbeing indices

	Psychological wellbeing (maximum value possible: 120)	Subjective wellbeing (maximum value possible: 80)
Secondary school students	86.71/72%	67.8/84%
Undergraduate students	85.50/71%	63.2/79%
Whole group	86.24/71.8%	66.05/82.5%

We found no correlation between the time spent online (neither active nor passive) and the students' wellbeing.

4. Discussion

The hypothesis that the increased time spent online with educational activities has a negative impact on students' wellbeing is *not confirmed*. This is probably due to the fact that the population of adolescents already used to spend much time online, and are adapted and familiar with this environment.

Any long-term negative effects of online education (if any) are not caused by the increased time spent online, but are likely due to other factors (see Luitjen et al, 2021). On the contrary, some studies (e.g. Cauberghe et

al., 2021) show that adolescents commonly used social media to cope with the feelings of anxiety and loneliness during Covid-19 pandemics.

The relatively high values of the wellbeing indices seem to confirm the conclusions of a previous study (Lee & Yoo, 2015), which shows that the children's' wellbeing is less dependent on material and economic factors and is more linked with the quality of the relationships with the family and friends.

The main limitations of the present study derive from the lack of homogeneity of the participant sample, given the age difference between the two groups (14-16 year old in the group of secondary school students, and 19-21 year old in the group of undergraduate students). The scale for subjective wellbeing, which includes items requiring the evaluation of aspects like the housing conditions, the overall health status, the relationships with the social environment, the level of security, etc. is probably not the best instrument to use when working with 14 years old adolescents.

We plan to continue the work started with this study in order to determine whether the wellbeing of the students and teachers is clearly linked with the academic performance and to identify possible techniques and methods that can improve the wellbeing in school.

Bibliography

Amerijckx, G., & Humblet, P. C. (2014). Child well-being: What does it mean? Children & Society, 28(5), 404-415.

Andrews, F. M, and Withey, S. B. (1976) Social Indicators of Well-being: Americans' Perceptions of Life Quality. New York, Plenum.

Antonelli E, Cucconi L. (1998). Effects of retirement on psychological wellbeing, the self-concept, and self-esteem. Ricerche Di Psicologia. 22 (3): 27-55 (in Italian).

Ben-Arieh, A., Casas, F., Frønes, I., & Korbin, J. E. (2014). Multifaceted concept of child well-being. Handbook of child well-being, 1, 1-27.

Berger, C., Alcalay, L., Torretti, A., & Milicic, N. (2011). Socio-emotional well-being and academic achievement: Evidence from a multilevel approach. *Psicologia: reflexao e critica*, *24*, 344-351.

Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. Russell Sage Foundation.

Cauberghe, V., Van Wesenbeeck, I., De Jans, S., Hudders, L., & Ponnet, K. (2021). How adolescents use social media to cope with feelings of loneliness and anxiety during COVID-19 lockdown. *Cyberpsychology, Behavior, and Social Networking*, *24*(4), 250-257.

Cummins, R. A., Eckersley, R., Pallant, J., Van Vugt, J., & Misajon, R. (2003). Developing a national index of subjective wellbeing: The Australian Unity Wellbeing Index. *Social indicators research*, *64*(2), 159-190.

Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of personality and social psychology*, *47*(5), 1105.

Disabato, D. J., Goodman, F. R., Kashdan, T. B., Short, J. L., & Jarden, A. (2016). Different types of well-being? A cross-cultural examination of hedonic and eudaimonic well-being. *Psychological assessment*, *28*(5), 471.

Erdogan, B., Bauer, T. N., Truxillo, D. M., & Mansfield, L. R. (2012). Whistle while you work: A review of the life satisfaction literature. *Journal of management*, *38*(4), 1038-1083.

Hafner, M., van Stolk, C., Saunders, C., Krapels, J., & Baruch, B. (2015). Health, wellbeing and productivity in the workplace. *A Britain's Healthiest Company summary report" RAND Corporation Report, Available online: https://www.rand.org/pubs/research_reports/RR1084.html*. Accessed on November 22, 2022.

Helliwell, J. F., & Putnam, R. D. (2004). The social context of well–being. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, *359*(1449), 1435-1446.

Huebner, E. S., Hills, K. J., Jiang, X., Long, R. F., Kelly, R., & Lyons, M. D. (2014). Schooling and children's subjective well-being. *Handbook of child well-being*, *2*, 797-819.

Keyes, C. L. (2010). Flourishing. *The Corsini Encyclopedia of Psychology*, Wiley Online Library

Kecojevic, A., Basch, C. H., Sullivan, M., & Davi, N. K. (2020). The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. *PloS one*, *15*(9), e0239696.

Kyriopoulos, I., Athanasakis, K., & Kyriopoulos, J. (2018). Are happy people healthier? An instrumental variable approach using data from Greece. *J Epidemiol Community Health*, *72*(12), 1153-1161.

Lee, B. J., & Yoo, M. S. (2015). Family, School, and Community Correlates of Children's Subjective Well-being: An International Comparative Study. *Child Indicators Research*, *8*(1), 151–175. https://doi.org/10.1007/s12187-014-9285-z

Lindfors, P., Berntsson, L., & Lundberg, U. (2006). Factor structure of Ryff's psychological well-being scales in Swedish female and male white-collar workers. *Personality and individual differences*, *40*(6), 1213-1222.

Loera-Malvaez, N., Balcázar-Nava, P., Trejo-González, L., Gurrola-Peña, G. M., & Bonilla-Muñoz, M. P. (2017). Adaptación de la Escala de

Bienestar Psicológico de Ryff en adolescentes preuniversitarios. *Neurología, Neurocirugía y Psiquiatría*, *41*(3-4), 90-97.

Luijten, M. A., van Muilekom, M. M., Teela, L., Polderman, T. J., Terwee, C. B., Zijlmans, J., ... & Haverman, L. (2021). The impact of lockdown during the COVID-19 pandemic on mental and social health of children and adolescents. *Quality of Life Research*, *30*(10), 2795-2804.

Man, M., & Ticu, C. (2015). Subjective well-being and professional performance. *Land Forces Academy Review*, *20*(2), 211.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of personality and social psychology*, *57*(6), 1069.

Song, H., Gu, Q., & Zhang, Z. (2020). An exploratory study of teachers' subjective wellbeing: understanding the links between teachers' income satisfaction, altruism, self-efficacy and work satisfaction. *Teachers and Teaching*, *26*(1), 3-31.

Van Dierendonck, D. (2004). The construct validity of Ryff's Scales of Psychological Well-being and its extension with spiritual well-being. *Personality and individual differences*, *36*(3), 629-643.

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), 2325.