

THE IMPACT OF COVID-19 ON THE MENTAL HEALTH OF THE PORTUGUESE POPULATION

Paula Isabel Gonçalves dos Santos

Psicobodycare Unipessoal, Lda.
Porto-Portugal

Jorge Rodrigues Saraiva

Faculdade de Psicologia e de Ciências da
Educação, Universidade do Porto.
Porto- Portugal

Edgar Martins Mesquita

CASL – Casa de Acolhimento Sol Nascente.
Monte Córdova- Portugal

Marta Silva Coelho

Psicobodycare Unipessoal, Lda.
Porto-Portugal

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Abstract: Introduction: Covid-19 does not only have repercussions on the physical level, it represents a new way of life, both individually and in society. The pandemic results in invisible consequences for the mental health of the population. This study aimed to explore the consequences of Covid-19 on mental health in Portugal with a view to understanding and promoting the well-being and happiness of the Portuguese. **Methodology:** The study included 111 young people and adults, aged between 18 and 58 years ($M = 21.81$, $SD = 5.34$), with 43.7% males and 52.7% females. A sociodemographic questionnaire was applied to all participants, as well as the **Échelle de Mesure des Manifestations du Bien-Être Psychologique**, which translates into a response scale 5-point Likert type, with five subscales, including happiness. In addition, a semistructured interview with data collection instruments was administered. **Results:** The results obtained demonstrate the negative impact of Covid-19 on the level of well-being, regardless of the participant's gender or age. **Discussion and Conclusion:** The data presented point to the need to sensitize individuals to the risk of the pandemic in terms of mental health, thus increasing society's awareness of the psychological effects of this new global disease. Therefore, coping mechanisms are essential to promote well-being and successfully overcome the pandemic.

Keywords: Well-being, Covid-19, Mental Health.

COVID-19 AND MENTAL HEALTH

As the Covid-19 pandemic progresses, experts say we are facing a "tsunami of psychiatric illness," contributing to an impending mental health crisis (Tandon, 2020).

Patients with infection experience physical discomfort, fear of developing complications,

and discrimination by the mass media (Lu et al., 2020; Shigemura et al., 2020). In addition, changes in mental status are seen that can manifest in significant neuropsychological impairments, including depression, anxiety, insomnia, denial, delirium, confusion, lack of attention and concentration, memory loss, executive dysfunction (Baig, 2020; Rothan & Byrareddy, 2020; Torales et al., 2020), sadness (Li et al., 2020) and boredom (Kontoangelos et al., 2020).

The absence of contact with family members or loved ones during the period of isolation and hospitalization can produce psychological instability which can result in high rates of posttraumatic symptoms (Bo et al., 2020). In addition, Covid-19 has future implications for health-related quality of life (HRQL) that are mainly associated with symptoms such as pain, fatigue, reduced ability to contribute to family resources or community responsibilities and altered sense of identity of purpose (Bryson, 2021).

Together with unpredictability and uncertainty, physical distance and social isolation, loss of economic income, loneliness, inactivity, limited access to basic services, greater access to food, alcohol and substance consumption, online games and interruption of projects potentiate mental health problems, especially in older and vulnerable people (Hooper et al., 2020; Puccinelli et al., 2021). Additionally, situations of domestic violence, child abuse are verified (Moreno et al., 2020) and suicide cases (Galea et al., 2020; Tandon, 2020).

Generally, the quarantine phenomenon can contribute to feelings of stress and anger (Li et al., 2020; Qiu et al., 2020), hysteria, anguish, loss of control (Mauder et al., 2003), irritability, fear of contracting and spreading the disease, frustration, confusion, despair (Brooks et al., 2020; Liu et al., 2012) numbness (Serafini et al., 2020) or emotional

exhaustion (Mauder et al., 2003). As such, the quarantine period appears to encompass important and dysfunctional psychological consequences for the individual's mental health, both short and long term (Serafini et al., 2020).

HAPPINESS AND WELL-BEING

Happiness refers to a concept that expresses the psychological properties of the subject, feeling happy in the moment or cases of episodic happiness (Feldman, 2016). As such, despite the ups and downs throughout our daily life, most people tend to be reasonably happy and adapt to difficulties and challenges, achieving a balanced level of happiness (Duncan, 2010).

On the other hand, the nature of well-being is closely linked to the concepts of benefit and harm. Thus, when an individual benefits the other, it has a positive impact on the well-being of the other and the same happens in an antagonistic way in relation to the damage (Feldman, 2016). The well-being is conceptually linked to benevolence and kindness, attitudes of care, and personal concern (Raibley, 2011).

The context for choosing the sample of young people and adults mirrors the core of human development, in which change is marked by new phenomena that encompass various aspects of human development, that is, physical, emotional, and psychosocial, in a network of interactions. This change is usually systematic and adaptive in nature (Papalia & Feldman, 2013).

In general, the bibliographical review seems to present a humanist and positivist perspective, a strong link between happiness and well-being, in which the human being seeks beneficial and pleasurable stability, being a source of motivation to foster their development guys.

OBJECTIVES

This study aims to explore the consequences of Covid-19 on mental health in Portugal, to understand and promote the well-being and happiness of the Portuguese. In addition, this study, which has a quantitative and qualitative nature, will allow addressing the practicality of a therapeutic notepad in young people and adults, promote well-being and happiness, provide a better quality of life and decrease the eventual negative mood of the participants.

METHODOLOGY

PARTICIPANTS

A total of 111 young people and adults, aged between 18 and 58 years old ($M = 21.81$; $SD = 5.34$) participated in this study, with 47.3% male and 52.7% female. Regarding professional status, 6.4% are unemployed, 14% are students, 12.4% are employees and students, 45% are employed by another person, 14.2% are self-employed and 36% have more than one source of employment. Regarding marital status, 34.2% are single, 38.7% are married, 17.8% are in a de facto union, 7.5% are divorced, and 1.8% have another marital status. Regarding socioeconomic status, 9.1% belong to low status, 30% have medium-low status, 52.7% have medium status, 6.4% have medium-high status, and 0.9% have high status. Finally, and considering the degree of satisfaction with life, 0.1% are not at all satisfied, 0.6% little satisfied, 19.9% moderately satisfied, 47.3% satisfied, and 32.1% very satisfied. All participants live in urban centres in northern Portugal.

MATERIAL

In the first phase, a sociodemographic questionnaire was developed to collect information from the participants, such as age, gender, professional status, marital status, socioeconomic status, and degree of

satisfaction with life. To assess well-being and happiness, we chose to use the Portuguese version of the Échelle de Mesure des Manifestations du Bien-Être Psychologique (ÈMMBEP; (Massé et al., 1998)), an instrument validated for the Portuguese population by Monteiro and collaborators (Monteiro et al., 2012). This scale consists of 25 items and is divided into six sub dimensions: self-esteem, balance, social involvement, sociability, control of self and of events (4 items respectively), and happiness (5 items). For each area, the individual must indicate, based on a 5-point Likert scale from 1 (Never) to 5 (Almost always), each of their answers. The higher the total score obtained, the greater the psychological well-being perceived by the individual. Regarding the psychometric properties, in this study, this instrument showed good global internal consistency ($\alpha = 0.90$), and it is important to mention, as a note of interest, that the happiness subscale has a Cronbach's alpha of 0.88, in agreement with the original psychometric values (Massé et al., 1998) in which adequate levels of general internal consistency are around $\alpha = 0.93$, with the six subscales in question having alpha values ranging between 0.71 and 0.85 for social involvement and happiness, respectively.

Regarding the notepad, this material is composed of quotes and inspiring thoughts as well as tasks that participants can share with whomever they want, assuming something voluntary and not mandatory. These activities, in turn, aim to help individuals towards well-being and happiness. At the end of the notepad, participants found three types of coloured sheets: green (pleasant thoughts/matter); yellow (thoughts/neutral matter), and red (thoughts/matter of concern). In this case, a semi structured interview used to understand the functionality of this material was administered. This study complies with the Declaration of Helsinki of 1975.

RESULTS

In the original study conducted in 2018 by the present authors, the average of the EAPEU total scale for the 111 participants ($M = 58.85$; $SD = 9.18$) presented moderate levels of psychological well-being. In 2020, with the same participants, the results were significantly lower ($M = 51.79$; $SD = 6.96$) ($p = 0.012$). Thus, the comparison of repeated measures ANOVA showed significantly lower results for PASS in 2020 compared to 2018, based on a global perspective ($p = 0.023$), and no interaction was found for sex ($p = 0.678$) and age ($p = 0.783$), suggesting the same trends among these categories (Table 1).

Regarding the gender of the participants, taking into account the comparison of averages between the groups of male and female students (Table 2), there were statistically significant differences between men and women, which indicates that males perceive less well-being compared to females ($t(97) = 2,076$; $p = 0.043$).

Regarding to age, taking into account the comparison of averages between age groups (Table 3), statistically significant differences were found between young people and adults, which indicates that young people perceive greater well-being when compared to adults ($t(111) = 2,080$; $p = 0.046$).

Regarding the degree of satisfaction with life (Table 4), no statistically significant differences were found between the participants, taking into account nothing or little satisfaction, moderately satisfied, satisfied, and very satisfied ($F(4; 104) = 1,441$; $p > 0.226$).

Regarding the content analysis of the study tasks, it was observed that participants share similar beneficial characteristics, such as helping others, empathy, and honesty. The most significant people that the participants identified are family members (100%), friends (80%), and finally companion/pet

	2018		2020			
	Men (n =53); (47.75%)	Women (n =58); (52.25%)	Men (n =53); (47.75%)	Women (n =58); (52.25%)	p-value (global)	p-value (interaction)
PASS	35.35 (7.72)	32.53 (6.45)	31.35 (4.32)	29.43 (5.12)	p =0.023	p =0.678
	Young People (n =59); (53.15%)	Adults (n =52); (46.85%)	Young People (n =59); (53.15%)	Adults (n =52); (46.85%)	p-value (global)	p-value (interaction)
PASS	35.50 (6.86)	32.38 (7.68)	32.50 (7.72)	28.28 (6.45)	p =0.023	p =0.783

Table 1. EAPEU comparison between 2018 and 2020.

	<i>Men (SD)</i> <i>n =53</i>	<i>Women (SD)</i> <i>n =58</i>	<i>T-Test</i>
Total PASS	35.35 (7.72)	32.53 (6.45)	t (97) = 2.076; p = 0.043

Table 2. Comparison of total PASS results by sex.

	<i>Young People (SD)</i> <i>n= 59</i>	<i>Adults (SD)</i> <i>n= 52</i>	<i>T-Test</i>
Total PASS	35.33 (7.68)	35.33 (6.41)	t (111) = 2.080; p = 0.046

Table 3. Comparison of total PASS results by age.

	<i>Nothing/ Little satisfaction</i> <i>n =7</i> <i>(6.31%)</i>	<i>Moderately Satisfied</i> <i>n =20</i> <i>(18.01%)</i>	<i>Satisfied</i> <i>n =52</i> <i>(46.85%)</i>	<i>Very Satisfied</i> <i>n =32</i> <i>(28.83%)</i>	<i>ANOVA</i>
Total PASS	34.40 (7.70)	36.70 (6.90)	33.73 (7.90)	32.19 (5.70)	F(4; 104) =1.441 P = 0.226

Table 4. Comparison of total PASS results by degree of satisfaction with life.

animals (65%). In semi structured interviews, participants indicated that both positively and negatively, the family is always highlighted which functions as a primary social support, while peers and friends assume a secondary social support. It was possible to notice that the participants showed effort and interest in the proposed tasks as a way of reflecting on their well-being and happiness.

Finally, the expressions that were most frequently used are cited: "I feel good about myself, because I know that my family is always with me both in good times and in bad"; "I've always been a happy person, because I've been able to make my dreams come true."

DISCUSSION AND CONCLUSION

In the original study conducted in 2018 by the present authors, the average of the EAPEU total scale for the 111 participants ($M = 58.85$; $SD = 9.18$) presented moderate levels of psychological well-being. In 2020, with the same participants, the results were significantly lower ($M = 51.79$; $SD = 6.96$) ($p = 0.012$).

Thus, the results reveal not only the negative impact of Covid-19 on people's well-being, but also a greater need to focus on raising awareness of the level of risk of the virus in the mental health of the Portuguese population in the limited spectrum of time. As such, it becomes a potential tool for monitoring and triggering effective coping measures and strategies to combat the adverse consequences of the pandemic. The message is clear: society must be made aware of the psychological effects of the new global disease and coping mechanisms are fundamental to promote well-being and a better quality of life to successfully overcome the challenges of the environment at risk to human health.

The team considers that this study constitutes an important contribution to the investigation of the well-being and mental

health of the Portuguese, as its assessment triggered an alert to the psychosocial and emotional risks of this new global framework as well as to the need to formulate and to pragmatize prevention actions/campaigns.

In short, and unfortunately, it will not be possible, on our part, to compare the data with other countries, since this study was carried out specifically in Portugal, so the presence and work of a foreign researcher would be necessary to carry out the comparison of these results with data obtained in other countries.

REFERENCES

- Baig, A. M. (2020). **Neurological manifestations in COVID-19 caused by SARS-CoV-2.** *CNS Neuroscience and Therapeutics*, 26(5), 499–501. <https://doi.org/10.1111/cns.13372>
- Bo, H.-X., Li, W., Yang, Y., Wang, Y., Zhang, Q., Cheung, T., Wu, X., & Xiang, Y.-T. (2020). **Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China.** *Psychological Medicine*, 51(6), 1052–1053. <https://doi.org/10.1017/S0033291720000999>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). **The psychological impact of quarantine and how to reduce it: rapid review of the evidence.** *The Lancet*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Bryson, W. J. (2021). **Long-term health-related quality of life concerns related to the COVID-19 pandemic: a call to action.** *Quality of Life Research*, 30(3), 643–645. <https://doi.org/10.1007/s11136-020-02677-1>
- Duncan, G. (2010). **Should happiness-maximization be the goal of government?** *Journal of Happiness Studies*, 11(2), 163–178. <https://doi.org/10.1007/s10902-008-9129-y>
- Feldman, R. (2016). *Understanding Psychology* (B. M. H. Education. (ed.); 12th ed).
- Galea, S., Merchant, R. M., & Lurie, N. (2020). **The Mental Health Consequences of COVID-19 and Physical Distancing.** *JAMA Internal Medicine*, 180(6), 817–818. <https://doi.org/10.1001/jamainternmed.2020.1562>
- Hooper, M. W., Nápoles, A. M., & Pérez-Stable, E. (2020). **COVID-19 and Racial/Ethnic Disparities.** *JAMA*, 323(24), 2466–2467. <https://doi.org/10.1001/jama.2020.8598>
- Kontoangelos, K., Economou, M., & Papageorgiou, C. (2020). **Mental health effects of COVID-19 pandemia: A review of clinical and psychological traits.** *Psychiatry Investigation*, 17(6), 491–505. <https://doi.org/10.30773/PI.2020.0161>
- Li, J., Yang, Z., Qiu, H., Wang, Y., Jian, L., Ji, J., & Li, K. (2020). **Anxiety and depression among general population in China at the peak of the COVID-19 epidemic.** *World Psychiatry*, 19(2), 249–250. <https://doi.org/10.1002/wps.20758>
- Liu, X., Kakade, M., Fuller, C. J., Fan, B., Fang, Y., Kong, J., Guan, Z., & Wu, P. (2012). **Depression after exposure to stressful events: Lessons learned from the severe acute respiratory syndrome epidemic.** *Comprehensive Psychiatry*, 53(1), 15–23. <https://doi.org/10.1016/j.comppsy.2011.02.003>
- Lu, W., Wang, H., Lin, Y., & Li, L. (2020). **Psychological status of medical workforce during the COVID-19 pandemic: A cross-sectional study.** *Psychiatry Research*, 288(112936), 1–5. <https://doi.org/10.1016/j.psychres.2020.112936>
- Massé, R., Poulin, C., Dassa, C., Lambert, J., Bélair, S., & Battaglini, M. A. (1998). **Élaboration et validation d'un outil de mesure du bien-être psychologique: L'ÉMMBEP.** *Canadian Journal of Public Health*, 89(5), 352–357. <https://doi.org/10.1007/bf03404490>
- Maunder, R., Hunter, J., Vincent, L., Bennett, J., Peladeau, N., Leszcz, M., Sadavoy, J., Verhaeghe, L. M., Steinberg, R., & Mazzulli, T. (2003). **The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital.** *Cmaj*, 168(10), 1245–1251.
- Monteiro, S., Tavares, J., & Pereira, A. (2012). **Manifestação de bem-estar psicológico com estudantes universitários-EMMBEP.** *Psicologia, Saúde e Doenças*, 13(1), 61–77.
- Moreno, C., Wykes, T., Galderisi, S., Nordentoft, M., Crossley, N., Jones, N., Cannon, M., Correll, C. U., Byrne, L., Carr, S., Chen, E. Y. H., Gorwood, P., Johnson, S., Kärkkäinen, H., Krystal, J. H., Lee, J., Lieberman, J., López-Jaramillo, C., Männikkö, M., ... Arango, C. (2020). **How mental health care should change as a consequence of the COVID-19 pandemic.** *The Lancet Psychiatry*, 7(9), 813–824. [https://doi.org/10.1016/S2215-0366\(20\)30307-2](https://doi.org/10.1016/S2215-0366(20)30307-2)
- Papalia, D. E., & Feldman, R. D. (2013). *Human development* (12th ed.). New York: McGraw-Hill.

Puccinelli, P. J., da Costa, T. S., Seffrin, A., de Lira, C. A. B., Vancini, R. L., Nikolaidis, P. T., Knechtle, B., Rosemann, T., Hill, L., & Andrade, M. S. (2021). **Correction to: Reduced level of physical activity during COVID-19 pandemic is associated with depression and anxiety levels: an internet-based survey.** *BMC Public Health*, 21(1), 1–11. <https://doi.org/10.1186/s12889-021-10684-1>

Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). **A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: Implications and policy recommendations.** *General Psychiatry*, 33(2), 19–21. <https://doi.org/10.1136/gpsych-2020-100213>

Raibley, J. R. (2011). **Happiness is not Well-Being.** *Journal of Happiness Studies*, 13(6), 1105–1129. <https://doi.org/10.1007/s10902-011-9309-z>

Rothan, H. A., & Byrareddy, S. N. (2020). **The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak.** *Journal of Autoimmunity*, 109(102433). <https://doi.org/10.1016/j.jaut.2020.102433>

Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). **The psychological impact of COVID-19 on the mental health in the general population.** *Qjm*, 113(8), 229–235. <https://doi.org/10.1093/qjmed/hcaa201>

Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2020). **Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations.** *Psychiatry and Clinical Neurosciences*, 74(4), 281–282. <https://doi.org/10.1111/pcn.12988>

Tandon, R. (2020). **COVID-19 and mental health: Preserving humanity, maintaining sanity, and promoting health.** *Asian Journal of Psychiatry*, 51(102256). <https://doi.org/10.1016/j.ajp.2020.102256>

Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). **The outbreak of COVID-19 coronavirus and its impact on global mental health.** *International Journal of Social Psychiatry*, 66(4), 317–320. <https://doi.org/10.1177/0020764020915212>