BRAIN. Broad Research in Artificial Intelligence and Neuroscience

ISSN: 2068-0473 | e-ISSN: 2067-3957

Covered in: Web of Science (WOS); PubMed.gov; IndexCopernicus; The Linguist List; Google Academic; Ulrichs; getCITED; Genamics JournalSeek; J-Gate; SHERPA/RoMEO; Dayang Journal System; Public Knowledge Project; BIUM; NewJour; ArticleReach Direct; Link+; CSB; CiteSeerX; Socolar; KVK; WorldCat; CrossRef; Ideas RePeC; Econpapers; Socionet.

2024, Volume 15, Issue 1, pages: 240-257 | https://doi.org/10.18662/brain/15.1/549

Optimism As A Resource And Form Of Manifesting Positive Affectiveness In The Elderly And Young Adults Pre-Pandemic Vs Pandemic - Comparative Study

Lavinia - Alexandra MOROIANU 1 Cecilia CURIS² Marius MOROIANU*3 Cristina ŞTEFĂNESCU 4 Anamaria CIUBARA 5

- ¹ Clinical Medical Department, Faculty of Medicine and Pharmacy, University "Dunărea de Jos", 800201, Galați, România, ORCID ID: https://orcid.org/0000-0001-9688-0580, lavinia.moroianu@yahoo.com ² Clinical Department, Faculty of Medicine and Pharmacy, University "Dunărea de Jos", 800201, Galați, România, ORCID ID: https://orcid.org/0009-0001-3591-0720, cecilia curis@yahoo.com,
- ³ "Department of Dental Medicine, Faculty of Medicine and Pharmacy University "Dunărea de Jos" Galați, 800201, Galați, România, moroianu.g.marius@gmail.com
- ⁴ Department of Dental Medicine, Faculty of Medicine and Pharmacy University "Dunărea de Jos" Galați, 800201, Galați, România
- ⁵ Clinical Medical Department, Faculty of Medicine and Pharmacy, University "Dunărea de Jos", 800201, Galați, România, ORCID ID: https://orcid.org/0000-0003-0740-3702, anamburlea@gmail.com

Abstract: *Introduction*: The present study represents a meta-analysis carried out using the term optimism as a form of manifestation of positive affectivity from a double perspective, namely: reporting to two periods, prepandemic and pandemic and to two age categories, young adults and old people. Two types of psychological intervention factors were analyzed in the mentioned categories, in the pre-pandemic period, namely, a period of financial stability vs pre-pandemic financial instability, respectively, the spectrum of the pandemic generating anxiety, illness and death as markers of emotional balance. The meta-analysis indirectly quantified the interest in scientific research regarding optimism as a psychological resource, through the number of published articles related to this psychological variable. Material and method: The study is a comparative and cross-sectional meta-analysis of articles published in the PubMed database during 2008-2011, 2016-2019 and 2020-2023. Data processing was carried out using the Microsoft Excel application. **Results:** The comparative analysis between young people and the elderly ones regarding the studies published in the period 2008-2011 with the psychological variable "optimism" in their study shows a 15.65 times higher number of studies in terms of articles about seniors. Also, the comparative analysis of the number of studies published in the period 2008-2023 for the two age categories is clearly in favor of the elderly, the ratio being 1 to 12.8. It is possible that this fact is due to the greater addressability of the health systems of the elderly. The comparative analysis led to the conclusion that optimism as a form of manifestation of positive affectivity was studied more frequently in the third age patients being considered an important resource for them due to its attenuation with advancing age and by diminishing personal resources as a consequence of cognitive impairment and emotional lability. In young people, optimism is a psychological component present in a greater proportion and constitutes the premises of ecological emotional and cognitive manifestations. Conclusions: The meta-analysis revealed differences regarding research interest related to optimism as a manifestation of positive affectivity in relation to the periods studied and to the mentioned age categories. In relation to optimism per se, it represents an important resource at any age and it is dependent on a series of factors that are related to the period of life but also to the situational context, without discussing the personality type of the individual and a series of co-factors (transgenerational, educational, cultural, geographical, etc.).

Keywords: optimism, positive affectivity, resource, study.

How to cite: Moroianu, L.-A. Curis, C., Moroianu, M., Ștefănescu, C. & Ciubara, A. (2024). Optimism as a resource and form of manifesting positive affectiveness in the elderly and young adults pre-pandemic vs pandemic - comparative study. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 15(1), 240-257. https://doi.org/10.18662/brain/15.1/549

Introduction

Optimism represents an individual psychological characteristic involved in maintaining the emotional balance of the human being. From the philosophical-psychological perspective, optimism can be considered a cognitive structure that ensures the projection of the being towards the future, or in other words, optimism represents the perception of personal existence in relation to its temporal continuum (Avvenuti et al., 2016). The factors that can disrupt the emotional balance by affecting optimism are multifactorial and can occur at any time in the individual's life.

The current study aims to bring attention regarding this psychological variable, considering its correlation with longevity, susceptibility to chronic diseases and premature death (Lee et al., 2019) Optimism as a psychological resource is also important in the case of young people, as there is evidence that it improves individual behaviors "contributes directly to the way objectives are translated into behaviors" (Carver & Scheier, 2014).

There is an important relationship between optimism, personality type and age, as modulators of coping in relation to the situation that represents the stressor (Carver & Connor Smith, 2010). Dispositional optimism represents a protective element against cardiovascular diseases, in opposition to anger and sadness, which are promoters of the appearance of this type of disease (Bajaj et al, 2019). It is recognized that dispositional optimism is a component of the positive affective state, which intervenes together with other psychological and biological constants, in the management of chronic diseases (Avvenuti et al., 2016). In elderly people, dispositional optimism works as a promoter of positive health behaviors, contributing to the decrease of mortality (Yue et al., 2022, Ciobotea et al, 2016, Untu et al, 2015).

Optimism is involved as a psychological variable in the development of other psychological constructs and in maintaining the homeostasis of the individual's psychological status (Bortolotti & Antrobus, 2015; Chipperfield et al., 2019; Carver & Connor-Smith, 2010; Conversano et al., 2010; Carver & Scheier, 2014). Moreover, its importance is recognized in the adoption of desirable behaviors in terms of health-related lifestyle, influence on physical and mental well-being, adaptive behaviors and even recovery in acute conditions and the evolution of the disease in the case of chronic conditions (Curis et al., 2018; de Moliere & Harris, 2016; Häfner, 2013; Harris, 2017; Harris et al., 2017; Lench, 2009). For this reason, it is important to study the concept of optimism and equally to quantify the interest shown by the

scientific world in this direction, there being objective evidence in this sense (Boileau et al., 2021; Giannouli, 2023; Kim et al., 2023; Milhabet & Verlhiac, 2011; Schnall, 2017; Schneider, 2001).

Describing the pandemic as a dramatic period not only from a medical point of view but also from a philosophical point of view, the isolation generated in the collective consciousness questions about the future of humanity, the need for some anchors at a collective psychological level appeared (Amit et al., 2021; Cao et al., 2021; Gassen et al., 2021; Greenblatt-Kimron et al., 2023; Hartz et al., 2023; Islam et al., 2023; Izydorczak et al., 2022).

Material and method

The study represents a comparative and cross-sectional meta-analysis of the number of articles that analyze optimism as a psychological resource in young adults and in the elderly, published in the PubMed database in three periods: 2008-2011, 2016-2019 and, respectively, 2020-2023. Data processing was carried out with the help of the Microsoft Excel and Minitab application.

A number of 2456 studies were analyzed, 178 studies on young people (7.24%) and 2278 (92.75%) studies on the elderly in which the binomial optimism - young people, respectively, optimism - elderly people represented the search term for the studies published in the database PubMed data in the previously mentioned reference periods.

Results

A first analysis was represented by the comparison between the number of published studies, by age group (Fig.1).

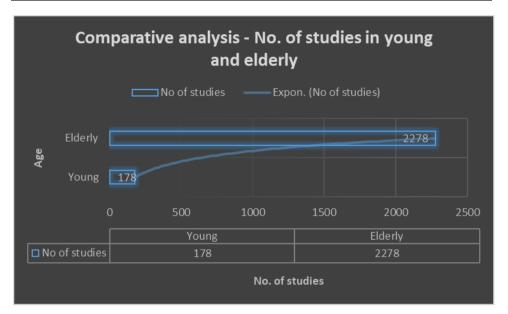


Fig 1. Comparative analysis of number of studies in young and old people Source: Authors' own conception

The comparative analysis of the number of studies published in the period 2008-2023 for the two age categories is clearly in favor of the elderly, the ratio being 1 to 12.8. It is possible that this fact is due to the greater addressability of the health systems of the elderly (Lalani et al., 2023; Levkovich et al., 2021; Nava et al., 2023; Okuzono et al., 2022; Sepúlveda - Loyola et al., 2020; Xu & Zhao, 2022; Vanderzanden & Ruthig, 2018). There are two main reasons for this situation: the first reason is represented by the increased number of elderly people with chronic conditions that require medical and/or social assistance, the second reason being the influence of the optimism variable in the context of chronic diseases in the elderly, which was more frequently studied for the same reason.

The analysis regarding the studies that refer to the optimism variable, in young people (Fig. 2)

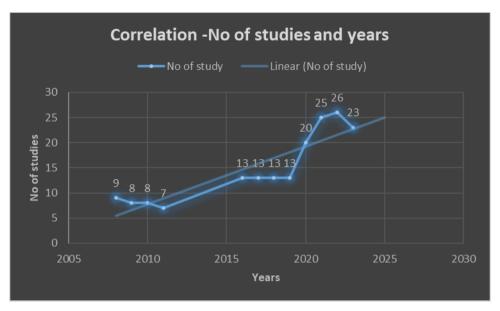


Fig. 2 Correlation between number of studies and years at young people Source: Authors' own conception

Regarding the distribution by years of the studies published regarding the concept of optimism among young people, a downward trend can be observed in the period 2008-2011, then a plateau in the period 2016-2019, followed by an upward trend in the period 2020-2023, in what concerns young people (Krause et al., 2022; Liu et al., 2023; McCool- Myers et al., 2022; Maftei & Pietroi, 2022; McColl et al., 2021).

It can be observed that the number of published studies for the elderly (Fig. 3) in the period 2008-2011 is the lowest of the three analyzed periods. There is an upward trend in the period 2016-2019. An equal number of studies were published between 2016 and 2021. The analysis of the graph shows in the period 2016-2021, a number oscillating around 250 studies with an average of 260.5. This fact demonstrates a growing interest in the period 2016 - 2021. In the period 2022 - 2023, a decrease in research interest for this subject can be observed, demonstrated by the number of published studies

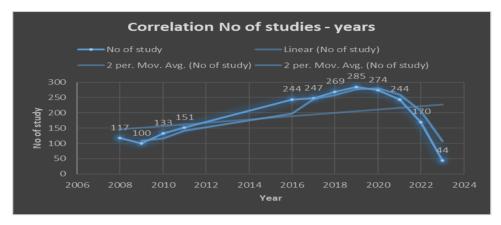


Fig. 3. Correlation between number of studies and years in elderly *Source: Authors' own conception*

In the period 2008-2011, there was a twice smaller number of studies was published than in the period 2016-2019 (Fig 4).

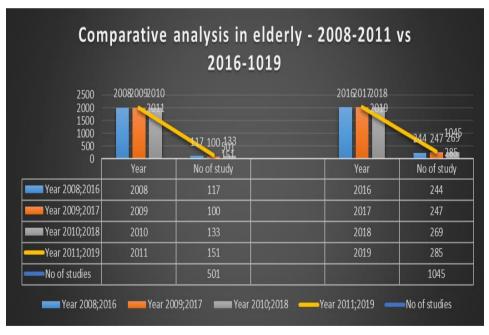


Fig. 4 Comparative analysis between 2008-2011 vs 2016-2019 in elderly Source: Authors' own conception

Analyzing the time periods 2016-2019 vs 2020-2023 (Fig. 5), we observe the fact that in the period 2016-2019, 1.45 times more studies were published than in the period 2020-2023. The comparison of the three time

periods shows that in the period 2016-2019 the most studies were published on the analyzed subject. Although the number was lower at the extreme levels, there is still a 1.46 times increase in the number of studies in the period 2020-2023 compared to 2008-2011.



Fig. 5 Comparative analysis between 2016-2019 vs 2020-2023 in elderly *Source: Authors' own conception*

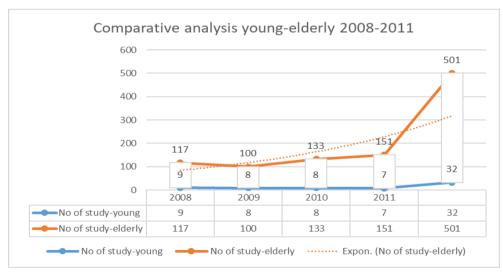


Fig. 6 Comparative analysis between young and elderly in 2008-2011 period Source: Authors' own conception

The comparative analysis between young people and the elderly (Fig. 6) regarding the studies published in the period 2008-2011 with the psychological variable "optimism" in the study shows a 15.65 times higher number of studies in terms of articles about seniors.

In the period 2016-2019 (Fig. 7), the comparison between the studies on young people (52 studies) respectively, the elderly (1045 studies) shows that 20.09 times more studies on the elderly were published.

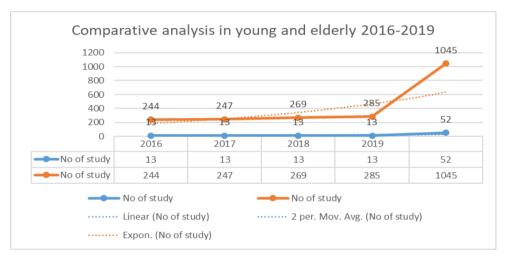


Fig. 7 Comparative analysis between young and elderly in 2016-2019 period Source: Authors' own conception

The comparative analysis between the two age categories in the period 2020-2023 shows that 7.8 times more studies about the elderly were published (Fig. 8).

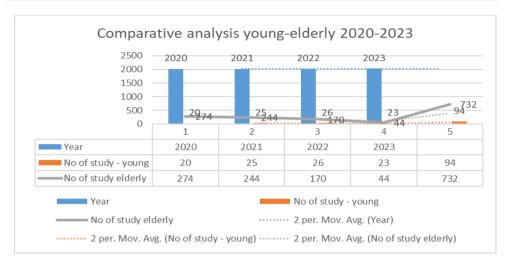


Fig. 8 Comparative analysis between young and elderly in 2020-2023 period Source: Authors' own conception

We observe the biggest difference between the studies published in the two age categories in the period 2016-2019. We also note that twice as many studies were published in the period 2008-2011 than in the period 2020-2023.

Discussions

Interest in the concept of optimism is not new. The large number of 2456 studies published only during the 12-year period under study, on the levels 2008-2011, 2016-2019 and 2020-2023, indirectly proves this fact. The pandemic period determined a revival of interest in this subject with the amendment that the interest was less for the category of elderly people during the pandemic period than in the previous periods analyzed. This fact can be explained by the reduced participation in the social life of the elderly, less active from a social point of view on the one hand and on the other hand due to the decrease in addressability to medical services in the classic version (Luca et al, 2022). The decrease in addressability was due to the lockdown periods but also to the limitation of interaction in the therapeutic relationship through the provision of remote medical services. A reason for this situation is represented by the limited access to the means of communication at a distance both by the lack or the reduced number of devices and by the barrier imposed by the acceptability of using these devices for the purpose of medical communication or by the limited knowledge regarding digital skills (Pandele et al, 2021).

The concept of "optimism" requires a reframing in a pandemic and post-pandemic context assimilable to an extremely complex psychological "phenomenon" and certainly requires the deepening of theoretical and applied knowledge socially and individually. Previous studies emphasize the involvement of different models related to cultural differences, referring also to the shades of the concept of optimism, namely, unrealistic optimism vs. pessimism (Rose et al., 2008, Anghel et al, 2022).

Of particular importance with reference to the pandemic period, studied long before it, published in the 80s and continued later in the 2000s, is "the positive association between optimism and acceptance/resignation, but only when the event was interpreted as uncontrollable". It is a situation superimposed on the pandemic one and thus explanations are offered regarding the intrinsic mechanisms of "the significance of people's adaptation efforts in stressful situations" (Scheier et al., 1986; Shepperd et al., 2013; Chirita et al, 2012).

The notion of unrealistic optimism (expecting a better personal future than is reasonably probable) is related to adopting or not adopting desirable behaviors in certain given situations. Thus, the pandemic period determined unrealistic expectations regarding the evolution of comorbidities aggravated by the contamination of the SARS CoV 2 virus and certain decisions regarding the correctness of treatment for basic conditions, vaccination or general rules related to healthy behaviors (diet, physical exercises, monitoring through remote consultations) (Lupu et al, 2017). Thus, it is important to study unrealistic optimism at the group level as well as at the individual level in patients with chronic conditions (Shepperd et al., 2017; Shepperd et al., 2015). A subject of study is the one regarding the correlation between the pre-existence of psychiatric conditions such as anxiety and depression in patients with a chronic condition, for example diabetes and unrealistic optimism as a psychological factor, generator of certain protective behaviors and coping mechanisms (Moroianu et al., 2022 a; Vieites et al., 2021) fact demonstrated by studies conducted during the pandemic and post-pandemic (Wielgopolan et al., 2022) Optimism is a key factor in the context of anxiety disorders, particularly during the COVID-19 pandemic. These disorders represent a significant medical and social concern, demanding careful evaluation and timely treatment. The pandemic exacerbated anxiety due to factors like isolation and fear. Interestingly, in 2019, more patients sought hospital consultations and admissions, but optimism can be seen in the fact that age and gender differences between the groups were not significant. It's noteworthy that anxiety disorders tend to emerge after the age of 40, underscoring the importance of maintaining an optimistic outlook as one ages. Additionally, the lower prevalence of ethanol consumption and the presence of protective factors such as home quarantine and family integration in 2020 suggest that fostering a positive mindset and supportive environments can help mitigate anxiety-related challenges during times of crisis (Droahna et al., 2023). Optimism is essential when dealing with adult patients who have a long psychiatric history and treatment-resistant psychiatric symptoms linked to dental problems. While psychiatric treatment can address some functional and social issues, dental consultations and interventions are equally vital to tackle appetite disorders and reduce perceived stigma. An increase in the patient's quality of life and future perspectives, including a more positive outlook and reduced suicidal thoughts, were observed after comprehensive care (Izzat et al, 2021, Iliescu-Bulgaru et al, 2015). Therefore, both psychiatric and dental screening programs are crucial, as their co-occurrence can have a synergistic impact, making simultaneous treatment and ongoing patient monitoring highly preferable (Moroianu et al., 2022 b)

The comparative analysis carried out through this study led to the conclusion that optimism as a form of manifestation of positive affectivity was studied more frequently in the third age being considered an important resource for them due to its attenuation with advancing age and by diminishing personal resources as a consequence of cognitive impairment and the onset of emotional lability. In young people, optimism is a psychological component present in a greater proportion and constitutes the premises of ecological emotional and cognitive manifestations (Zdravkovic, 2023).

Future studies regarding the psychological factor of optimism should take into account the involvement of this concept in ensuring psychological well-being, the increase of individual satisfaction in relation to one's own existence and consequently the use of optimism as a valuable psychological resource for individuals of all ages.

Acknowledgement: The authors Lavinia - Alexandra Moroianu and Cecilia Curis have the same contribution to the article as the correspondent author.

Conclusions

The conclusions formulated in this study are derived indirectly by analyzing the number of studies published in the specialty literature, which reflect the interest in medical research for the subject addressed. The comparative analysis between the two studied population samples - young

and elderly respectively, demonstrates by far the greater interest in the case of the elderly population regarding the study of optimism as a psychological factor involved in the evolution of chronic diseases but also as a resource in critical or ordinary situations of existence.

The comparison of the three time periods 2008-2011, 2016-2019 respectively, 2020-2023 shows that in the period 2016-2019 the most studies were published on the analyzed subject. Although the number was lower at the extreme levels, there is still 1.46 times increase in the number of studies in the period 2020-2023 compared to 2008-2011.

With great probability, the greater interest shown in research for the elderly population is due to the increased addressability of this age category to medical services. However, this fact should not represent a barrier to the study of optimism as a resource in future studies and among the young population.

The meta-analysis revealed differences regarding the interest in research related to optimism as a manifestation of positive affectivity in relation to the periods studied and to the mentioned age categories. In relation to optimism per se, it represents an important resource at any age and is dependent on a series of factors that are related to the period of life but also to the situational context, without discussing the personality type of the individual and a series of co-factors (transgenerational, educational, cultural, geographical, etc.).

References

- Amit, S., Barua, L., & Kafy, A.A. (2021). A perception-based study to explore COVID-19 pandemic stress and its factors in Bangladesh. *Diabetes Metabolism Syndrome*, 15(4):102129. doi: 10.1016/j.dsx.2021.05.002.
- Avvenuti, G., Baiardini, I., & Giardini, A. (2016). Optimism's explicative role for chronic diseases. *Front Psychology*, 7, 295. doi: 10.3389/fpsyg.2016.00295.
- Bajaj, A., Bronson, C. A., Habel, M., Rahman, S., Weisberg, H. R., & Contrada, R. J. (2019). Dispositional optimism and cardiovascular reactivity accompanying anger and sadness in young adults. *Annals of Behavioral Medicine*, 53(5), 466-475. doi: 10.1093/abm/kay058.
- Boileau, L., Gaudreau, P., Gareau, A., & Chamandy, M. (2021). Some days are more satisfying than others: A daily-diary study on optimism, pessimism, coping, and academic satisfaction. *British Journal of Educational Psychology*, *91*(1), 46-62 doi: 10.1111/bjep.12346.

- Bortolotti, L. & Antrobus, M. (2015). Costs and benefits of realism and optimism, *Current Opinion in Psychiatry*, 28(2):194-8. doi: 10.1097/YCO.000000000000143.
- Cao, B., Wang, D., Wang, Y., Hall, BJ., Wu, N., Wu, M., Ma, Q., Tucker, JD., Lv, X. (2021). Moderating effect of people-oriented public health services on depression among people under mandatory social isolation during the COVID-19 pandemic: a cross-sectional study in China. *BMC Public Health*, 21(1):1374. doi: 10.1186/s12889-021-11457-6.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical psychology review*, *30*(7), 879-889. doi: 10.1016/j.cpr.2010.01.006.
- Carver, C. S., & Scheier, M. F. (2014). Dispositional optimism. *Trends in cognitive sciences*, 18(6), 293-299. doi: 10.1016/j.tics.2014.02.003.
- Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. *Annual review of psychology*, 61, 679-704. doi: 10.1146/annurev.psych.093008.100352.
- Chipperfield, J.G., Hamm, J.M., Perry, R.P., Parker, P.C., Ruthig, J.C., & Lang, F.R. (2019). A healthy dose of realism: The role of optimistic and pessimistic expectations when facing a downward spiral in health. *Social Science Medicine*, 232, 444-452. doi: 10.1016/j.socscimed.2018.08.030.
- Chirita, R., Sacuiu, I., Burlea, A., & Chirita, V. (2012). The role of nitric oxide inhibitors in treatment on symptom severity and cognitive deficits in schizophrenia. *International Journal of Neuropsychopharmacology*, 15, 113-113
- Ciobotea, D., Vlaicu, B., Ciubara, A., Duica, C.L., Cotocel, C., Antohi, V., Pirlog, M.C. (2016). Visual impairment in the elderly and its influence on the quality of life. *Revista de Cercetare si Interventie Sociala, 54*, 66-74
- Conversano, C., Rotondo, A., Lensi, E., Della Vista, O., Arpone, F., & Reda, M. A. (2010). Optimism and its impact on mental and physical well-being. *Clinical practice and epidemiology in mental health: CP & EMH*, 6, 25 doi: 10.2174/1745017901006010025.
- Curis, C., Ciubara, A. B., Nechita, A., Nechita, L., Kantor, K., & Moroianu, L.A. (2018). The role of the motivational interview in treatmant acceptance. Case report. *The Medical-Surgical Journal*, 122(2), 375-380, https://www.revmedchir.ro
- de Molière, L., & Harris, A. J. (2016). Conceptual and direct replications fail to support the stake-likelihood hypothesis as an explanation for the interdependence of utility and likelihood judgments. *Journal of Experimental Psychology: General*, 145(4), e13. doi: 10.1037/xge0000124.

- Droahnã, A.R., Moroianu, L.A., Pietroşel, V.A., Bica, C.I., Salmen, T., Curis, C., Merlo, E.M., Stoica, R.A., & Moroianu, M. (2023). Anxio-depressive disorders in a pandemic context: A comparative analysis: year 2019 versus 2020. *Journal of Mind and Medical Sciences, 10*(1),17. DOI: https://doi.org/10.22543/2392-7674.1392
- Gassen, J., Nowak, T.J., Henderson, A.D., Weaver, S.P., Baker, E.J., Muehlenbein, M.P. (2021). Unrealistic optimism and risk for COVID-19 disease. *Front Psychology*, 12, 647461. doi: 10.3389/fpsyg.2021.647461. eCollection 2021.
- Giannouli, V. (2023). Are sex differences in self-estimated intelligence an elusive phenomenon? Exploring the role of working memory, creativity, and other psychological correlates in young and older adults. *Brain Behavior*, 13(2):e2857. doi: 10.1002/brb3.2857.
- Greenblatt-Kimron, L., Shinan-Altman, S., Alperin, M., & Levkovich, I. (2023). Depression and medicine use among older adults during the COVID-19 pandemic: The role of psychosocial resources and COVID-19 perceived susceptibility. *International Journal of Environmental Research and Public Health*, 20(4), 3398.doi: 10.3390/ijerph20043398.
- Häfner, M. (2013). When body and mind are talking. Interoception moderates embodied cognition, *Experimental Psychology*, 60(4):255-9. doi: 10.1027/1618-3169/a000194.
- Harris, A.J., de Molière, L., Soh, M., & Hahn, U. (2017). Unrealistic comparative optimism: An unsuccessful search for evidence of a genuinely motivational bias. *PloS one*, *12*(3):e0173136. doi: 10.1371/journal.pone.0173136.
- Harris, A.J. (2017). Understanding the coherence of the severity effect and optimism phenomena: Lessons from attention. *Consciousness and Cognition*, 50, 30-44. doi: 10.1016/j.concog.2016.10.014.
- Hartz, C., Dragolov, G., Arant, R., Delhey, J., Unzicker, K., & Boehnke, K. (2023). Youth and social cohesion in times of the COVID pandemic: Most negatively affected? Most resilient? Front Psychology, 14, 1036516. doi: 10.3389/fpsyg.2023.1036516.
- Islam, A., Mahbuba, P., Ahmed, T., & Haque, S. (2023). Modifiable and nonmodifiable factors associated with anxiety, depression, and stress after one year of the COVID-19 pandemic. *PLoS One, 18*(3):e0283422. doi: 10.1371/journal.pone.0283422.
- Izzat, A.A.H., Anghel, L., Stefanescu, B., Kantor, C., & Ciubara, A. (2021).

 Prevention of psychoactive substance use. *Archiv Euromedica, 11*(5): 59-61,
 DOI: 10.35630/2199-885X/2021/11/5.16

- Izydorczak, K., Antoniuk, K., Kulesza, W., Muniak, P., & Dolinski, D. (2022). Temporal aspects of unrealistic optimism and robustness of this bias: A longitudinal study in the context of the COVID-19 pandemic. *PLoS One*, 17(12):e0278045. doi: 10.1371/journal.pone.0278045.
- Kim, S., Chow, B.C., Park, S., & Liu, H. (2023). The usage of digital health technology among older adults in Hong Kong and the role of technology readiness and eHealth literacy: Path analysis. *Journal of Medical Internet Research*, 25, e41915. doi: 10.2196/41915.
- Krause, KH., Verlenden, JV., Szucs, LE., Swedo, EA., Merlo, CL., Niolon, PH., Leroy, ZC., Sims, VM., Deng, X., Lee, S., & Rasberry, C.N. (2022). Underwood J.M., Disruptions to school and home life among high school students during the COVID-19 Pandemic Adolescent behaviors and experiences survey. *MMWR Suppl. 71*(3):28-34. doi: 10.15585/mmwr.su7103a5.
- Lalani, N., Dongjuan, X., Cai, Y., Arling, GW. (2023). Structural equation model of coping and life satisfaction of community-dwelling older people during the COVID-19 pandemic. *Journal of Patient-Reported Outcomes*, 7(1):46. doi: 10.1186/s41687-023-00583-x
- Lee, L. O., James, P., Zevon, E. S., Kim, E. S., Trudel-Fitzgerald, C., Spiro III, A., ... & Kubzansky, L. D. (2019). Optimism is associated with exceptional longevity in 2 epidemiologic cohorts of men and women. *Proceedings of the National Academy of Sciences*, 116(37), 18357-18362.https://doi.org/10.1073/pnas.1900712116
- Lench, H. C. (2009). Automatic optimism: The affective basis of judgments about the likelihood of future events. *Journal of Experimental Psychology: General, 138*(2), 187. doi: 10.1037/a0015380.
- Levkovich, I., Shinan-Altman, S., Essar Schvartz, N., & Alperin, M. (2021).

 Depression and health-related quality of life among elderly patients during the COVID-19 Pandemic in Israel: A cross-sectional study. *Journal of Primary Care Community Health, 12*, doi: 10.1177/2150132721995448
- Liu, X., Ji, X., & Zhang, Y.(2023). Trajectories of college students' general self-efficacy, the related predictors, and depression: A piecewise growth mixture modeling approach. *Heliyon*, *9*(5):e15750. doi: 10.1016/j.heliyon.2023.e15750.
- Luca, L., Ciubara, A. B., Antohe, M. E., Peterson, I., & Ciubara, A. (2022). Social media addiction in adolescents and young adults-psychoeducational aspects. *Archiv Euromedica*, 12, Special Issue, DOI 10.35630/2022/12/psy.ro.16

- Lupu, V. V., Ignat, A., Stoleriu, G., Ciubara, A. B., Ciubara, A., Lupu, V., Burlea, M., Stratciuc, S. (2017). Vaccination of children in Romania between civic obligation and personal choice. Revista de Cercetare si Interventie Socială, 56, 123-132
- Maftei, A., & Petroi, C.E. (2022). "I'm luckier than everybody elsel": Optimistic bias, COVID-19 conspiracy beliefs, vaccination status, and the link with the time spent online, anticipated regret, and the perceived threat. *Front Public Health*, 10, 1019298. doi: 10.3389/fpubh.2022.1019298.
- McColl, K., Debin, M., Souty, C., Guerrisi, C., Turbelin, C., Falchi, A., Bonmarin, I., Paolotti, D., Obi, C., Duggan, J., Moreno, Y., Wisniak, A., Flahault, A., Blanchon, T., Colizza, V., & Raude, J. (2021). Are people optimistically biased about the risk of COVID-19 infection? Lessons from the first wave of the pandemic in Europe. *International Journal of Environmental Research and Public Health*, 19(1):436. doi:10.3390/ijerph19010436.
- McCool-Myers, M., Grasso, D., Kozlowski, D., Cordes, S., Jean, V., Gold, H., & Goedken, P. (2022). The COVID-19 pandemic's intersectional impact on work life, home life and wellbeing: an exploratory mixed-methods analysis of Georgia women's experiences during the pandemic. *BMC Public Health*, 22(1), 1988. doi: 10.1186/s12889-022-14285-4.
- Milhabet, I. & Verlhiac, J.F. (2011). Social acceptance of comparative optimism and realism. *Psychological Reports*, 109(2):393-410. doi: 10.2466/07.21.PR0.109.5.393-410
- Moroianu, L.A., Curis, C., Ardeleanu, V., Pantea Stoian, A., Cristescu, V., Barbu, R.E., & Moroianu, M. (2022). Clinical study of serum serotonin as a screening marker for anxiety and depression in patients with Type 2 Diabetes. *Medicina (Kaunas)*, 58(5), 652. doi: 10.3390/medicina58050652
- Moroianu, M., Moroianu, L.A., Ciubara, A., & Matei, M.N. (2022). Persistent depressive disorder: the clinical approach of the patient associating depression and dental pathology Case report and clinical considerations. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, *13*(1), 229-238. https://doi.org/10.18662/brain/13.1/280
- Nava, F., Margoni, F., Herath, N., & Nava, E. (2023). Age-dependent changes in intuitive and deliberative cooperation. *Scientific Reports*, 13(1), 4457 doi: 10.1038/s41598-023-31691-9.
- Okuzono, S. S., Shiba, K., Lee, H. H., Shirai, K., Koga, H. K., Kondo, N., ... & Trudel-Fitzgerald, C. (2022). Optimism and Longevity Among Japanese Older Adults. *Journal of happiness studies*, 23(6), 2581-2595.doi: 10.1007/s10902-022-00511-8.

- Pandele, V.F., Tucmeanu, A., Antohi, M.E., & Ciubara, A. (2021). The effect of using facebook on elderly people during covid-19 pandemic. *Archiv Euromedica*, 11(5): 69-71, DOI: 10.35630/2199-885X/2021/11/5.19
- Rose, J.P., Endo, Y., Windschitl, P.D., & Suls, J.(2008). Cultural differences in unrealistic optimism and pessimism: the role of egocentrism and direct versus indirect comparison measures. *Personality and Social Psychology Bulletin*, 34(9):1236-48. doi: 10.1177/0146167208319764.
- Scheier, M. F., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: divergent strategies of optimists and pessimists. *Journal of personality and social psychology*, *51*(6), 1257. doi: 10.1037//0022-3514.51.6.1257.
- Schnall, S. (2017). Social and contextual constraints on embodied perception. *Perspectives on Psychological Science*, *12*(2), 325-340. doi: 10.1177/1745691616660199.
- Schneider, S. L. (2001). In search of realistic optimism: Meaning, knowledge, and warm fuzziness. *American psychologist*, *56*(3), 250. doi: 10.1037//0003-066x.56.3.250.
- Sepúlveda-Loyola, W., Rodríguez-Sánchez, I., Pérez-Rodríguez, P., Ganz, F., Torralba, R., Oliveira, D. V., & Rodríguez-Mañas, L. (2020). Impact of social isolation due to COVID-19 on health in older people: mental and physical effects and recommendations. *The journal of nutrition, health & aging, 24*, 938-947. doi: 10.1007/s12603-020-1469-2.
- Shepperd, J. A., Klein, W. M., Waters, E. A., & Weinstein, N. D. (2013). Taking stock of unrealistic optimism. *Perspectives on Psychological Science*, 8(4), 395-411.. doi: 10.1177/1745691613485247.
- Shepperd, J. A., Waters, E. A., Weinstein, N. D., & Klein, W. M. (2015). A primer on unrealistic optimism. *Current directions in psychological science*, 24(3), 232-237doi: 10.1177/0963721414568341
- Shepperd, J. A., Pogge, G., & Howell, J. L. (2017). Assessing the consequences of unrealistic optimism: Challenges and recommendations. *Consciousness and Cognition*, *50*, 69-78 doi: 10.1016/j.concog.2016.07.004.
- Untu, I., Chirita, R., Bulgaru-Iliescu, D., Chirila, B.D., Ciubara, A., & Burlea, S.L. (2015). Ethical implications of bio-psycho-social transformations entailed by the aging process. *Revista de Cercetare si Interventie Sociala, 48*, 216-225.
- Vanderzanden, K., & Ruthig, J.C. (2018). Comparative optimism in older adults' future health expectations. *Br J Health Psychol.*, *23*(3):758-774. doi: 10.1111/bjhp.12315.

- Vieites, Y., Ramos, G. A., Andrade, E. B., Pereira, C., & Medeiros, A. (2021). Can self-protective behaviors increase unrealistic optimism? Evidence from the COVID-19 pandemic. *Journal of Experimental Psychology: Applied*, 27(4), 621doi: 10.1037/xap0000379.
- Wielgopolan, A., Pastwa, M., Warkocka, A., & Imbir, K. K. (2022). Anyone but Me: Unrealistic Optimism, Emotions and Anxiety in the Face of COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 20(1), 301.doi: 10.3390/ijerph20010301.
- Xu, X., & Zhao, L. (2022). Social capital and the realization of mutual assistance for the elderly in rural areas-based on the intermediary role of psychological capital. *International Journal of Environmental Research and Public Health*, 20(1):415. doi: 10.3390/ijerph20010415.
- Yue, Z., Liang, H., Qin, X., Ge, Y., Xiang, N., & Liu, E. (2022). Optimism and survival: health behaviors as a mediator-a ten-year follow-up study of Chinese elderly people. *BMC Public Health, 22*(1):670. doi: 10.1186/s12889-022-13090-3.
- Zdravkovic, A., & Goldstein, AL. (2023). Optimists and realists: A latent class analysis of students graduating from high school during COVID-19 and impacts on affect and well-being. *International Journal of Environmental Research and Public Health*, 20(3):2120. doi: 10.3390/ijerph20032120.