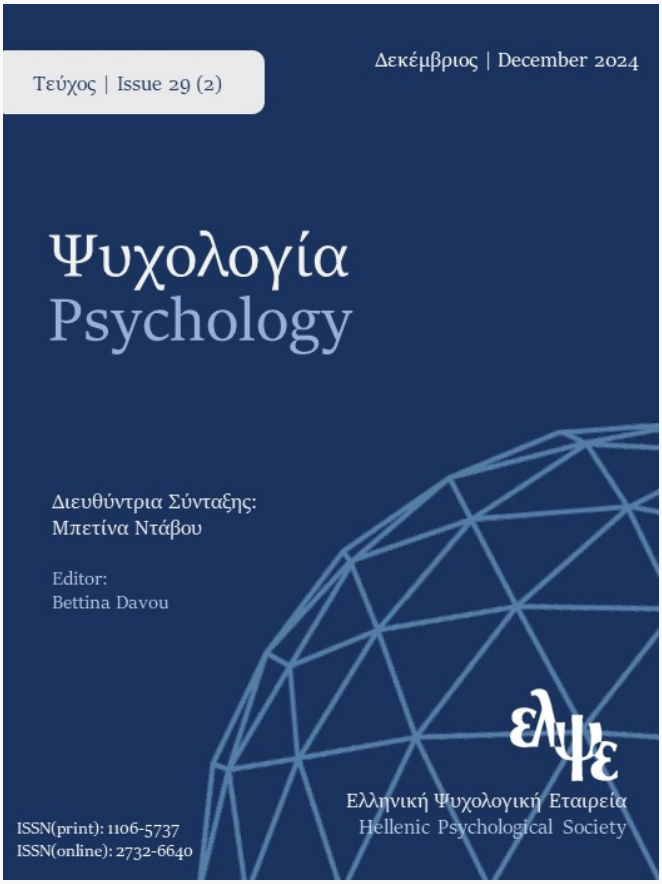
Psychology: the Journal of the Hellenic Psychological Society

Vol 29, No 2 (2024)

Special Section: Contemporary challenges in Clinical and Health Psychology



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doi: 10.12681/psy_hps.39618

To cite this article:

Orlandou, K., Togas, C., & Alexias, G. (2024). Association between optimism and health orientation and differences across gender and exercise status. A cross-sectional study during the COVID-19 pandemic. *Psychology: The Journal of the Hellenic Psychological Society*, *29*(2), 438–452. https://doi.org/10.12681/psy_hps.39618

ΨΥΧΟΛΟΓΙΑ | PSYCHOLOGY, 29(2), 438-452

Ελληνική Ψυχολογική Εταιρεία
Hellenic Psychological Society

ΕΜΠΕΙΡΙΚΗ ΕΡΓΑΣΙΑ | RESEARCH PAPER

Association between optimism and health orientation and differences across gender and exercise status. A cross-sectional study during the COVID-19 pandemic

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KEYWORDS

Health Orientation
Optimism
Life orientation
COVID-19 impact
Gender differences
Exercise status

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ABSTRACT

This cross-sectional study aimed to explore the association between optimism and health orientation in the Greek general population (n=400) and to identify differences across gender and exercise status during the COVID-19 pandemic (October-December 2020). The questionnaire included sociodemographic data, health information, the Health Orientation Scale (HOS), and the Life Orientation Test-Revised (LOT-R). Statistical analysis was conducted using SPSS, v. 28. The HOS revealed the highest mean score in Internal Health Control and the lowest in Health Image Concern. Significant correlations were observed between LOT-R and Health Esteem-Confidence (r=.294, p<.001), Health Expectations (r=.257, p<.001), Motivation to Avoid Unhealthiness (r=.202, p<.001), Health Status (r=.202, p<.001), Motivation for Healthiness (r=.138, p<.001), Private Health Consciousness (r=.114, p<.005), and Health Anxiety (r=-.143, p<.001). Men scored higher than women in Health Esteem-Confidence, Health Expectations, and Health Status while scoring lower in Health Anxiety. Individuals who engaged in frequent exercise had significantly higher scores than those who didn't in Private Health Consciousness, Health Image Concern, Health Esteem-Confidence, Motivation to Avoid Unhealthiness, Motivation for Healthiness, Health Expectations, and Health Status. Age, Health Esteem-Confidence, Motivation to Avoid Unhealthiness, Motivation for Healthiness, and Health Expectations positively predicted score on LOT-R. In conclusion, health orientation can play a pivotal role in enhancing optimism and addressing current and future health challenges, such as COVID-19. Health psychologists and practitioners can integrate these findings into their everyday clinical practice or use them to plan effective interventions. Additional research is recommended to further validate the above findings, especially after the end of the pandemic.

Introduction

Health is influenced by various factors, including socioeconomic status, gender, nationality, smoking, alcohol use, eating habits, weight, and physical exercise (Karadimas, 2005). Conversely, there is a growing recognition of the significance of psychological processes in the experience of health and illness (Marks et al., 2003). However, many aspects of this interplay remain unclear (Rokach, 2019).

In this context, health orientation, defined as an individual's motivation to adopt healthy attitudes, beliefs, and behaviors, emerges as a significant concept (Dutta et al., 2008). Some personality tendencies related to health orientation include private health consciousness, health image concern, health anxiety, health esteem-confidence, and internal and external health control (Snell et al., 1991). Health anxiety is a common problem, affecting most individuals at some point in their lives (Bajcar et al., 2019). Health locus of control assesses the

https://doi.org/10.12681/psy_hps.39618

extent to which individuals believe their health is influenced by internal factors (i.e., the direct result of one's actions) or external factors (i.e., medical professionals, fate, luck, etc.), and is linked to people's orientations toward their health. Health consciousness relates to the extent to which an individual tends to participate in health-related behaviors (Hoque et al., 2018).

Furthermore, one of the key concepts of positive psychology, which has beneficial effects on health, is the disposition to be optimistic about life (Achat et al., 2000; Kubzansky et al., 2001, 2002; Lee et al., 2019; Rasmussen et al., 2009; Steptoe et al., 2005). Optimism is defined as a set of beliefs that lead one to approach events actively (Peterson & Bossio, 1991). Conversely, pessimism is characterized by a belief that adversity cannot be avoided and that positive outcomes are unlikely to occur (Williams et al., 2009). Pessimism and optimism are presented as two distinct psychological dimensions (Conversano et al., 2010).

During the COVID-19 pandemic, optimism could have both positive outcomes, such as protection from excessive anxiety, and negative consequences, such as disregarding regulations and contributing to the virus's rapid spread (Kuper-Smith et al., 2021). Health orientation could also be a significant concept for understanding individuals' health behaviors during this time.

Various demographic characteristics have been identified as factors influencing optimism and health orientation. Snell (2002) argues that younger men and middle-aged women are more motivated to avoid unhealthy living. In contrast, Togas and Parlalis (2021) found that older people are more motivated to avoid unhealthy living. Interestingly, age does not seem to be related to health status (Snell et al., 2002).

According to a global population-based study spanning 142 countries, females tend to be more optimistic than males (Gallagher et al., 2013). In contrast, Dawson (2023) argues that women tend to be less optimistic than men, while other studies have found marginal to no gender differences in dispositional optimism (Hinz et al., 2017; Schou-Bredal et al., 2017). Additionally, studies indicate that younger age is associated with higher optimism, while pessimism tends to increase with age (Gallagher et al., 2013). A more advantaged socioeconomic position and a higher level of education are also linked to higher optimism and lower pessimism (Gallagher et al., 2013; Hinz et al., 2017; Schou-Bredal et al., 2017).

The association between optimism and health orientation has not been extensively examined. Togas and Parlalis (2021) found that optimism is positively associated with health status, health-esteem confidence, health expectations, and motivation to avoid unhealthy behaviors. Similarly, De Ridder et al. (2004) found that optimistic people suffering from chronic illnesses have a positive perception of their health status and positive expectations for their health, as they engage in self-care.

Various other studies have also found that high levels of optimism correlate positively with better health status (Carver & Scheier, 2014; Sardella et al., 2021; Schou-Bredal, 2017) and negatively with health anxiety (Kaya et al., 2022). Motivation to avoid unhealthy living and health-esteem confidence are also positively associated with health status (Togas & Parlalis, 2021). Specifically, amidst the COVID-19 pandemic, one study found that dispositional optimism serves as a significant predictor of the health behaviors exhibited by nursing students in Poland, Spain, and Slovakia (Kupcewicz et al., 2022).

It has been found that physically active women are more optimistic and feel more confident about their health. Those who play sports are also more motivated to maintain their health at a good level compared to those who do not engage in sports (Arif & Qayyum, 2019; Snell et al., 1991). Additionally, individuals with a health-oriented mindset are more likely to have a positive orientation toward various preventive behaviors and engage in healthy activities, such as regular exercise (Dutta-Bergman, 2005).

The COVID-19 pandemic had a significant impact on sports and exercise, as measures to reduce disease transmission led to decreased levels of physical activity and increased sedentary behavior (Chen et al., 2020; Yeo, 2020). Additionally, exercise tolerance was notably impaired in COVID-19 patients, especially those with pulmonary involvement (Halle et al., 2021). However, not everyone experienced a decrease in physical activity,

and gender differences were observed. For example, research in Portugal conducted both before and during the pandemic, revealed that women experienced a decline in daily physical activity during the pandemic, whereas men maintained consistently higher levels of physical activity in both periods (Branquinho et al., 2022).

It is questionable whether exercise and physical activities were influenced by health orientation and optimism during the COVID-19 pandemic. To the best of our knowledge, there is a dearth of evidence regarding the correlates of optimism, health orientation, and engagement in exercise within the Greek general population, particularly during the COVID-19 period. This study aimed to investigate the association between optimism and health orientation in the Greek population and to identify possible differences across gender and exercise status. Based on the literature review, the following hypotheses were formulated:

- There is a correlation between participants' health orientation and optimism (Hypothesis 1).
- There are differences in participants' health orientation related to their gender (Hypothesis 2).
- There are differences in participants' health orientation related to their exercise status (Hypothesis 3).
- There are differences in participants' optimism related to their gender (Hypothesis 4).
- There are differences in participants' optimism related to their exercise status (Hypothesis 5).

Method

Participants

The sample comprised 400 individuals from the Greek general population, selected based on the following eligibility criteria:

1. Individuals with sufficient ability to understand and respond to the questionnaire.
2. Ability to understand the Greek language.
3. Willingness to participate voluntarily in the research.

Persons who refused to participate voluntarily and those who were unable to respond to the questions were excluded from the study.

One hundred and forty-five questionnaires (36.45%) were collected in printed version, while the remaining two hundred and fifty-five (63.75%) were completed electronically.

The participants' mean age was 33 years (Mage = 33.28, SD = 11.67, Min = 18, Max = 65, Range = 47). The rest of the demographic characteristics of the sample and information about chronic disease and exercise are presented in Table 1.

Measures

The questionnaire consisted of two parts: the first part included sociodemographic data and health information, while the second part included the Health Orientation Scale (HOS) and the Life Orientation Test-Revised (LOT-R). Both scales have been previously validated in the Greek population.

Demographics-information about health

Participants reported their gender, age, marital status, educational level, and occupation. They also reported their weight and height and indicated if they suffered from a chronic disease. Weight and height were used to calculate the participants' Body Mass Index (BMI). They were classified into the following categories based on their BMI: underweight (<18.9), normal weight (19-24.9), overweight (25-29.9), obese (30-34.9), and extremely obese (>35).Regarding their exercise status, participants were asked if they engaged in any type of exercise (e.g., aerobic or anaerobic exercise, strength training, stretching exercises, sports activities, specialized training methods, etc.) during that period and how frequently (days per week). Based on these self-reports, they were classified as individuals who engaged in frequent exercise and individuals who did not engage in

such exercise.

Table 1. *Demographic characteristics of the sample and information about chronic disease and exercise*

	Frequency	Percentage (%)
Gender		
Man	113	28.2
Woman	287	71.8
Job		
Housewife	16	4.0
Unemployed	118	29.5
Laborer	2	0.5
Farmer	3	0.8
Civil servant	90	22.5
Private employee	126	31.5
Freelancer	38	9.5
Pensioner	7	1.8
Educational level		
Elementary school	3	0.8
Secondary school	10	2.5
Lyceum	88	22.0
University student	111	27.8
University graduate	139	34.8
M.A/M.Sc. Holder	47	11.8
Ph.D. Holder	2	0.5
Marital/relationship status		
Single	210	52.5
Married	174	43.5
Separated/divorced	12	3.0
Widow/er	4	1.0
Chronic disease		
Yes	70	17.5
No	330	82.5
Frequent exercise		
Yes	131	32.8
No	269	67.3

Health Orientation Scale (HOS)

It is a self-report questionnaire that evaluates personality tendencies toward physical health or health orientation. It consists of fifty items divided into ten scales, each containing five items, and measures the following health-related personality features (Snell et al., 1991):

1. Private Health Consciousness: The tendency to be highly aware of and think about one's physical health and fitness., e.g. "*I notice immediately when my body doesn't feel healthy*".

2. Health Image Concern: The tendency to be highly aware of the external, observable impression that one's physical health makes on others, e.g. "*I'm very concerned with how others evaluate my physical health*".
3. Health Anxiety: The tendency to be anxious and nervous about physical health-fitness, e.g. "*I'm worried about how healthy my body is*".
4. Health Esteem-Confidence: A generalized tendency to positively evaluate and feel confident about one's physical health, e.g. "*I have positive feeling about my health*".
5. Motivation to Avoid Unhealthiness: The motivation and desire to avoid being in a state of unhealthiness, e.g. "*I try to avoid engaging in behaviors that undermine my physical health*".
6. Motivation for Healthiness: The motivational tendency and desire to keep oneself in great physical health, e.g. "*I'm strongly motivated to devote time and effort to my physical health*".
7. Internal Health Control: The tendency to believe that one's physical health and fitness is a direct function of one's own behaviors and actions, e.g. "*My health is something that I alone am responsible for*". People with higher internal health control scores believe that they have control over their physical health.
8. External Health Control: The tendency to believe that one's health status is determined by uncontrollable factors external to oneself, e.g. "*The status of my physical health is determined mostly by chance happenings*". Those with higher scores on the external health control scale believe that their physical health is influenced by factors such as luck and chance.
9. Health Expectations: The tendency to expect that one's health will be excellent and positive in the future, e.g. "*I do not expect to suffer health problems in the future*".
10. Health Status: The tendency to regard oneself as being currently well-exercised and in good physical shape, e.g. "*My body is in good physical shape*".

Respondents rate each item on a 5-point Likert scale (*1 = Not at all characteristic of me, 5 = Very characteristic of me*). Items 14, 38, 39, 40, 48, 49, and 50 are reverse scored, and the total score for each scale ranges from 5 to 25. The greater the score, the greater the corresponding tendency towards physical health or health orientation.

The HOS has demonstrated adequate psychometric properties both in its original validation and in its cultural adaptation in Greece-Cyprus (Snell et al., 1991; Togas & Parlalis, 2021). In this study, the Greek version of the scale was administered, and Cronbach's alpha coefficient values were acceptable, ranging from 0.62 to 0.86.

Life Orientation Test-Revised

The Life Orientation Test-Revised (LOT-R) assesses dispositional optimism consisting of 10 items. Optimism is a general way of thinking that can benefit health outcomes. It has been used in much research on the behavioral, affective, and health consequences of the Optimism/Pessimism dimension. Three items measure optimism (e.g., "I am always optimistic about my future"), three items measure pessimism (e.g., "I hardly ever expect things to go my way"), and four items (2, 5, 6, 8) serve as fillers. Each item is rated on a five-point Likert scale (0-4), while items 3, 7, and 9 are reverse scored. The possible score ranges from 0 to 24, with higher values implying greater optimism (Scheier et al., 1994). According to another scoring system, there are three optimism categories: 0-13 = low optimism, 14-18 = moderate optimism, and 19-24 = high optimism (Scheier & Carver, 1985). In this study, both scoring systems were used. The scale has adequate internal consistency and test-retest reliability (Carver et al., 2010). Its Greek version also has good internal consistency, convergent validity, and stability over three months (Lyrakos et al., 2009). In the present study, Cronbach's α was .748.

Research Design and Procedure

A cross-sectional study utilizing a convenience sample was conducted in Greece over three months (October-December 2020). The snowball sampling method was employed, and the questionnaires were completed either in a printed version or electronically due to the restrictive measures of the COVID-19 pandemic. Initially, the questionnaires were sent to friends and students in several cities. The Google Forms platform was utilized for the electronic version, and the questionnaire was uploaded to social media or sent to friends via email. In both cases, participants were asked to complete the questionnaire and distribute it to other individuals.

Data analysis

The statistical program SPSS 28.0 was employed for data analysis, and the statistical significance level (p-value) was set at 5%. The normality of continuous variables was examined using the Kolmogorov-Smirnov test. The analysis commenced with descriptive statistics. Pearson's correlation coefficient was utilized to explore linear correlations among quantitative variables, and statistically significant differences in certain variables between two groups were assessed using the t-test for independent samples. Additionally, a hierarchical multiple linear regression analysis was conducted, with optimism (LOT-R score) as the dependent variable.

Ethics

Detailed information about the study's purpose was provided to participants, along with assurances of anonymity and confidentiality of their information. Participants were assured that the collected data would be used exclusively for the study's purpose. All participants volunteered to take part and did not receive any remuneration. In the case of online participation, participants read about the study's aim from an online information sheet and gave their consent by clicking the "Click here to proceed" button. Subsequently, they were free to complete the questionnaire, and if they wished to discontinue, they had the option to close the browser, thus withdrawing from participation.

Results

The response rate for the on-hand distribution of the questionnaires in this study was 100%. The mean BMI was 25.58 (SD = 5.36, Min = 17, Max = 46, Range = 29). Based on this, the following BMI categories were recorded: Underweight = 19 (4.8%), Normal weight = 198 (50.5%), Overweight = 103 (26.3%), Obese = 44 (11.2%), Extremely obese = 28 (7.1%).

Descriptive statistics for the LOT-R and the ten scales of the HOS are presented in Table 2. The highest mean score in the HOS was recorded on the scale "Internal Health Control" (20.60), and the lowest on the scale "Health Image Concern" (11.64). Regarding the LOT-R categories, 143 participants (35.8%) exhibited low optimism, 162 (40.5%) demonstrated moderate optimism, and 95 (23.8%) reported high optimism.

Correlations are presented in Table 3. Most of the HOS scales correlated significantly with the LOT-Revised. Specifically, the LOT-Revised correlated significantly (in a positive direction) with Health Esteem-Confidence, Health Expectations, Motivation to Avoid Unhealthiness, Health Status, Motivation for Healthiness, and Private Health Consciousness. On the other hand, the LOT-Revised correlated significantly (in a negative direction) with Health Anxiety. No significant correlation was recorded between the LOT-Revised and the other HOS scales. However, it is noteworthy that the above significant correlations were weak.

Table 2. *Descriptive Statistics for the scales of Health Orientation Scale and the LOT-R*

	N	Mean	SD	Min	Max	Range
Private Health Consciousness	400	18.74	3.27	5	25	20
Health Image Concern	400	11.64	4.72	5	25	20
Health Anxiety	400	14.88	4.47	5	25	20
Health Esteem-Confidence	400	16.40	3.18	6	24	18
Motivation to Avoid Unhealthiness	400	17.34	3.79	5	25	20
Motivation for Healthiness	400	17.40	4.17	5	25	20
Internal Health Control	400	20.25	3.41	5	25	20
External Health Control	400	12.32	3.09	5	22	17
Health Expectations	400	16.06	3.50	5	25	20
Health Status	400	13.53	4.06	5	24	19
Life Orientation Test-Revised	400	15.02	4.46	0	24	24

Table 3. *Pearson Correlations between LOT-R and the Health Orientation Scale*

	LOT-revised
Private Health Consciousness	.114*
Health Image Concern	-.084
Health Anxiety	-.143**
Health Esteem-Confidence	.294**
Motivation to Avoid Unhealthiness	.202**
Motivation for Healthiness	.138**
Internal Health Control	.010
External Health Control	.018
Health Expectations	.257**
Health Status	.202**

Note: *. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

Differences in the Health Orientation Scale (HOS) and the LOT-R based on gender and exercise status are presented in Table 4. Many significant differences were found across gender and exercise status in the Health Orientation Scale. On the other hand, no significant differences across these variables were found in the score of LOT-Revised.

Table 4. *Differences in the Health Orientation Scale and the LOT-R based on gender and exercise status*

	Gender			Exercise Status		
	Man	Woman	*p*	Yes	No	*p*
LOT-Revised	15.07	14.99	*NS*	15.22	14.91	*NS*
HOS						
Private Health Consciousness	18.64	18.78	*NS*	19.66	18.29	***<.001***
Health Image Concern	11.65	11.63	*NS*	12.31	11.30	***.045***
Health Anxiety	13.95	15.25	***.009***	14.31	15.16	*NS*
Health Esteem-Confidence	17.00	16.16	***.018***	17.94	15.65	**<.001**
Motivation to Avoid Unhealthiness	17.26	17.38	*NS*	19.40	16.34	**<.001**
Motivation for Healthiness	17.94	17.18	*NS*	20.22	16.02	**<.001**
Internal Health Control	20.52	20.14	*NS*	20.91	19.93	*NS*
External Health Control	11.85	12.50	*NS*	11.68	12.63	**.004**
Health Expectations	16.90	15.74	***.003***	17.36	15.43	**<.001**
Health Status	14.78	13.05	***<.001***	16.48	12.10	**<.001**

Regarding gender, the following significant differences were found: Men had higher scores than women in Health Esteem-Confidence (t = 2.38, df = 398, p = 0.018, Cohen's d = 0.265), Health Expectations (t = 3.03, df = 398, p = 0.003, Cohen's d = 0.337), and Health Status (t = 3.92, df = 398, p< 0.001, Cohen's d = 0.435). They also had lower scores in Health Anxiety (t = -2.64, df = 398, p = 0.009, Cohen's d = -0.293).

Regarding exercise status, individuals who engaged in frequent exercise had significantly higher scores than those who did not engage in such exercise in:

- Private Health Consciousness (t=3.98, df=398, p=<0.001, Cohen's d= 0.424)
- Health Image Concern (t=2.01, df=398, p=0.045, Cohen's d= 0.214)
- Health Esteem-Confidence (t=7.18, df=398, p=<0.001, Cohen's d=0.764)
- Motivation to Avoid Unhealthiness (t=8.16, df=398, p=<0.001, Cohen's d=0.869)
- Motivation for Healthiness (t=10.72, df=398, p=<0.001, Cohen's d=1.142)
- Health Expectations (t=5.33, df=398, p=<0.001, Cohen's d=0.568)
- Health Status (t=11.74, df=398, p=<0.001, Cohen's d=1.251)

On the contrary, they had lower scores in External Health Control (t=-2.91, df=398, p=0.004, Cohen's d=-0.31).

Following the above findings, a hierarchical linear regression analysis was conducted, with optimism (score in LOT-R) as the dependent variable. Age and gender were entered as predictor variables in Block 1, chronic disease and exercise status in Block 2, and the ten Health Orientation scales in Block 3. The blocks were included in the model independently by stage. No evidence of multicollinearity among the variables was suggested, with tolerance levels exceeding 0.1 and VIF (Variance Inflation Factor) values under 10. Additionally, no evidence of outliers or influential points was suggested upon examining Mahalanobis and Cook's distance, Centered Leverage Value, and Dffits and DfBetas. The results of the hierarchical regression analysis are presented in Table 5.

The results indicated that age and the scores on Health Esteem-Confidence, Motivation to Avoid Unhealthiness, Motivation for Healthiness, and Health Expectations positively predicted optimism (LOT-R score), and this relationship was statistically significant. The proportion of variance in the LOT-R score accounted for by all independent variables was equal to 0.125 (12.5%). The best predictor variables of optimism (LOT-R score) in the model were age (t = 3.020) and Health Esteem-Confidence (t = 2.884).

Table 5. *Hierarchical linear regression with optimism (LOT_R score) as the dependent variable*

	Predictor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			LowerBound	UpperBound
1	(Constant)	14.016	.991		14.148	***<.001***	12.068	15.964
	Age	.047	.019	.124	2.434	***.015***	.009	.086
	Gender	-.337	.504	-.034	-.668	.505	-1.327	.654
	Men* *versus* women							
	(Constant)	12.519	1.704		7.347	***<.001***	9.169	15.869
2	Age	.057	.020	.149	2.823	***.005***	.017	.097
	Gender	-.176	.525	-.018	-.335	.738	-1.207	.856
	Men* *versus* women							
	Chronic disease	.917	.603	.078	1.521	.129	-.268	2.103
	Yes* *versus* No							
	Exercise	-.462	.499	-.049	-.925	.356	-1.444	.520
	Yes* *versus* No							
	(Constant)	3.870	2.955		1.310	.191	-1.941	9.680
3	Age	.060	.020	.157	3.020	***.003***	021	.099
	Gender	-.204	.505	-.021	-.404	.686	-1.197	.788
	Men* *versus* women							
	Chronic disease	.248	.606	.021	.409	.683	-.943	1.439
	Yes* *versus* No							
	Exercise	.461	.570	.049	.810	.418	-.658	1.581
	Yes* *versus* No							
	Private Health Consciousness	.002	.080	.001	.023	.982	-.155	.159
	Health Image Concern	-.050	.053	-.053	-.936	.350	-.154	.055
	Health Anxiety	-.024	.064	-.024	-.375	.708	-.150	.102
	Health Esteem-Confidence	.308	.107	.220	2.884	***.004***	.098	.519
	Motivation to Avoid Unhealthiness	.260	.095	.221	2.739	***.006***	.073	.447
	Motivation for Healthiness	-.233	.101	-.218	-2.303	***.022***	-.431	-.034
	Internal Health Control	-.053	.075	-.040	-.709	.479	-.200	.094
	External Health Control	.065	.079	.045	.828	.408	-.089	.219
	Health Expectations	.211	.080	.166	2.630	***.009***	.053	.369
	Health Status	.039	.081	.035	.483	.629	-.119	.197

Note: *Reference category, Number of observations = 400; R-squared = .155; Adjusted R-square = .125

Discussion

This study aimed to explore the association between optimism and health orientation in the Greek population during the COVID-19 pandemic and identify potential differences across gender and exercise status. The investigation of this topic in the Greek population is novel, and the present study contributes to filling this research gap.

The primary finding of the study was the correlation between specific health orientation scales and optimism. Specifically, a positive correlation was observed between optimism and private health consciousness, health esteem-confidence, motivation to avoid unhealthy living, health motivation, health expectations, and

health status. Conversely, a negative correlation was found between optimism and health anxiety. This indicates that more optimistic individuals tend to have higher awareness and confidence in their health, stronger motivation to maintain good health, positive expectations for their future health, and perceive themselves as healthier. On the other hand, those with higher health anxiety tend to be less optimistic. Thus, hypothesis 1 was confirmed.

These results align with the findings of Togas and Parlalis (2021), who similarly reported a positive association of optimism with health esteem-confidence, motivation to avoid unhealthy living, health expectations, and health status. The finding that high levels of optimism correlate with better health status is consistent with previous research (Carver & Scheier, 2014; Sardella et al., 2021; Schou-Bredal, 2017; Steptoe et al., 2005). Similarly, optimism is strongly associated with positive health expectations (De Ridder et al., 2004), and dispositional optimism serves as a significant predictor of health behaviors, particularly during the COVID-19 pandemic (Kupcewicz et al., 2022).

The present study also identified a negative correlation between optimism and health anxiety. This result is consistent with findings reported by Kaya et al. (2022), suggesting that more optimistic individuals are less likely to experience anxiety about their health.

The highest mean score in the Health Orientation Scale (HOS) was recorded for the Internal Health Control scale, indicating a strong belief in personal responsibility for health. Conversely, the lowest mean score was observed for the Health Image Concern scale, suggesting less emphasis on how one's physical health is perceived by others. These results align with findings reported by Togas and Parlalis (2021), reinforcing the consistency of these patterns across different studies.

The hierarchical linear regression analysis revealed that age and Health-Esteem Confidence were the most influential predictors of optimism. Specifically, older individuals and those with higher Health-Esteem Confidence showed greater levels of optimism. This highlights the significant role that self-perceived health confidence and age play in shaping optimistic outlooks, particularly during challenging times such as the COVID-19 pandemic.

Regarding gender differences on the Health Orientation Scale, the study found that men reported higher levels of health esteem-confidence, more positive health expectations, and a better perceived health status compared to women. Additionally, men experienced lower levels of health anxiety. These results confirm hypothesis 2 and align with existing literature. For instance, Snell et al. (2002) similarly found that men are more confident about their health and report better health status. Togas and Parlalis (2021) also reported that men tend to have lower levels of health anxiety, supporting the current study's findings.

The current study did not find the significant difference reported by Snell et al. (2002), which indicated that younger men are more motivated to avoid unhealthy living. This discrepancy might be due to variations in cultural contexts between the studies. Cultural differences can influence health behaviors and attitudes, potentially leading to divergent findings across different populations.

The study's findings regarding exercise status corroborate existing literature on the relationship between physical activity and health orientation. Individuals who engaged in frequent exercise demonstrated higher scores across multiple health orientation dimensions, including private health consciousness, health image concern, health self-confidence, motivation to avoid unhealthy living, health motivation, health expectations, and health status. These results suggest that regular physical activity is associated with heightened health awareness, confidence, and motivation, as well as better health expectations and status.

The observed correlations are consistent with previous research, which highlights the positive impact of physical exercise on various aspects of health orientation (Arif & Qayyum, 2019; Snell et al., 1991). These findings reinforce the notion that physical activity is a key factor in promoting a proactive health orientation and maintaining overall well-being. Therefore, hypothesis 3 is supported by the data.

The study's findings on gender and optimism contribute to the ongoing debate regarding gender differences in dispositional optimism. Previous research has yielded mixed results: some studies suggest that women are less optimistic than men (Dawson, 2023; Gallagher et al., 2013), while others find marginal to no gender differences in optimism levels (Hinz et al., 2017; Schou-Bredal et al., 2017). The current study aligns with the latter viewpoint, revealing no significant differences in optimism between men and women, thereby not supporting hypothesis 4.

In contrast, age emerged as a significant predictor of optimism, with older participants displaying higher levels of optimism. This finding diverges from some past studies and suggests that age might play a more complex role in shaping optimism than previously understood. The lack of significant gender differences in optimism observed in this study, combined with the significant role of age, highlights the need for further research to explore how these factors interact and influence dispositional optimism.

Finally, no significant differences in optimism were found based on the participants' exercise status, and hypothesis 5 was not confirmed.

A primary limitation of this study is its cross-sectional design, which does not allow for the establishment of causal relationships. Another limitation is the overrepresentation of women, university students or graduates, and individuals without chronic diseases in the participant sample. This overrepresentation may have skewed the results, limiting the generalizability of the findings to a more diverse population. Additionally, the snowball sampling method and reliance on self-reports, particularly regarding exercise status, may have introduced biases. Moreover, the research was conducted during the second quarantine of the COVID-19 pandemic, which could have influenced participants' physical activity, psychological status, and optimism.

Despite the mentioned limitations, the findings of this research are relevant for dissemination to the general population. Health psychologists, policymakers, and other healthcare professionals can integrate these findings into their clinical practice and organize interventions to enhance health orientation and optimism. Such interventions could target individuals who infrequently exercise, those with sedentary lifestyles, unhealthy diets, and obesity, as well as patients with chronic conditions such as diabetes mellitus and cardiovascular diseases. Additionally, given the significant impact of gender on specific dimensions of health orientation, clinicians should consider this factor when designing and implementing these interventions.

Further research with a larger and more diverse sample is necessary to thoroughly examine and confirm the findings of this study. It would be particularly valuable to explore the relationship between optimism and health orientation using longitudinal or interventional research designs, or within specific populations such as patients with chronic diseases. Future studies could also investigate whether the observed relationships are influenced or mediated by various demographic and health-related characteristics. Expanding research in these directions can contribute to a more comprehensive understanding of the complex interplay between optimism and health orientation.

In conclusion, this study revealed a strong association between optimism and health orientation within the Greek general population during the COVID-19 pandemic, with notable differences observed across gender and exercise status. Health orientation, a relatively new concept in Greece, emerges as a potentially significant factor in enhancing optimism and coping with both current and future health challenges, including pandemics. This has broader implications for health promotion and public health. Future research is recommended to further examine and validate these results, particularly after the pandemic, to provide a more comprehensive understanding of the enduring implications.

Acknowledgments

We would like to thank the individuals who voluntarily participated in this study.

Funding

The authors received no financial support for this research.

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ΨΥΧΟΛΟΓΙΑ | PSYCHOLOGY, 29(2), 438-452

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ΕΜΠΕΙΡΙΚΗ ΕΡΓΑΣΙΑ | RESEARCH PAPER

Συσχέτιση μεταξύ αισιοδοξίας και προσανατολισμού υγείας και διαφορές μεταξύ φύλου και κατάστασης άσκησης. Συγχρονική μελέτη κατά τη διάρκεια της πανδημίας COVID-19

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Αισιοδοξία
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ΣΤΟΙΧΕΙΑ ΕΠΙΚΟΙΝΩΝΙΑΣ

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ΠΕΡΙΛΗΨΗ

Σκοπός αυτής της συγχρονικής μελέτης ήταν η διερεύνηση της συσχέτισης μεταξύ της αισιοδοξίας και του Προσανατολισμού Υγείας στον ελληνικό γενικό πληθυσμό (n=400) και ο εντοπισμός διαφορών μεταξύ των φύλων και της κατάστασης άσκησης κατά τη διάρκεια της πανδημίας COVID-19 (Οκτώβριος-Δεκέμβριος 2020). Το ερωτηματολόγιο περιλάμβανε κοινωνικοδημογραφικά δεδομένα, πληροφορίες για την υγεία, την Κλίμακα Προσανατολισμού Υγείας (HOS) και το Αναθεωρημένο Τεστ Προσανατολισμού Ζωής (LOT-R). Η στατιστική ανάλυση διεξήχθη με το SPSS, v. 28. Η αισιοδοξία συσχετίστηκε σημαντικά με την Εκτίμηση-Εμπιστοσύνη για την Υγεία (r=.294, p<.001), τις Προσδοκίες Υγείας (r=.257, p<.001), την Κινητοποίηση για την Αποφυγή του Ανθυγιεινού Τρόπου Ζωής (r=.202, p<.001), την Κατάσταση Υγείας (r=.202, p<.001), την Κινητοποίηση για την Υγεία (r=.138, p<.001), την Ατομική Συνείδηση Υγείας (r=.114, p<.005) και το Άγχος Υγείας (r=-.143, p<.001). Οι άνδρες σημείωσαν υψηλότερη βαθμολογία από τις γυναίκες στην Εκτίμηση-Εμπιστοσύνη για την Υγεία, στις Προσδοκίες Υγείας και στην Κατάσταση Υγείας και χαμηλότερη βαθμολογία στο Άγχος Υγείας. Τα άτομα που ασκούνταν τακτικά είχαν υψηλότερες βαθμολογίες σε οκτώ από τις δέκα υποκλίμακες του Προσανατολισμού Υγείας. Η ηλικία, η Εκτίμηση-Εμπιστοσύνη για την Υγεία, η Κινητοποίηση για την Αποφυγή του Ανθυγιεινού Τρόπου Ζωής, η Κινητοποίηση για την Υγεία και οι Προσδοκίες Υγείας προέβλεψαν θετικά την αισιοδοξία. Συμπερασματικά, ο Προσανατολισμός Υγείας μπορεί να διαδραματίσει καθοριστικό ρόλο στην ενίσχυση της αισιοδοξίας και στην αντιμετώπιση των προκλήσεων υγείας, όπως ο COVID-19. Οι ψυχολόγοι υγείας μπορούν να σχεδιάσουν αποτελεσματικές παρεμβάσεις και να ενσωματώσουν αυτά τα ευρήματα στην καθημερινή κλινική τους πρακτική. Προτείνεται η πραγματοποίηση και άλλων ερευνών για την περαιτέρω επιβεβαίωση αυτών των ευρημάτων.

https://doi.org/10.12681/psy_hps.39618

Ψυχολογία: Το περιοδικό της Ελληνικής Ψυχολογικής Εταιρείας
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