Uncertainty, Stress, and Resilience During the COVID-19 Pandemic in Greece

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Abstract: The COVID-19 outbreak imposed stress worldwide, as daily routine changed almost overnight, with no time to prepare. A pandemic like this may trigger a chain reaction starting out as surprise, continuing to uncertainty and ending up either in adaptation or in symptoms of fear, anxiety, and/or depression. Resilience on the other hand could lessen anxiety and prove to be a prophylactic coping mechanism against distress. This study explored peritraumatic distress, intolerance of uncertainty (IU), and resilient coping in a sample of 2717 adults who voluntarily and anonymously participated in an online survey conducted in April 2020, in Greece.

Results indicated a moderate pandemic-related mental burden and medium resilient coping and designated IU as a significant positive predictor of peritraumatic distress; resilient coping proved to be a significant moderator that alters the strength of the association between IU and distress reactions.

Key Words: COVID-19, resilience, resilient coping, peritraumatic distress, intolerance of uncertainty

The rapid spread of novel coronavirus (COVID-19) has had a major impact on people's day-to-day life. The measures implemented by the general public or mandated by the local governments and health organizations, including isolation, quarantine, extensive restrictions (e.g., prohibition of national and international travels), and proactive social distancing, are undeniably essential in the fight against the pandemic (Nussbaumer-Streit et al., 2020). Observations made during and after past pandemics indicate the substantial contribution of the quarantine status to the high prevalence of distress, insomnia, posttraumatic stress disorder, and depression (Brooks et al., 2020). However, recent meta-analyses revealed a modest psychological burden during the pandemic outbreak in response to the imposed lockdown measures (Prati and Mancini, 2021) with an overall prevalence of mental health problems estimated at slightly above 30% (Wu et al., 2021). Even so, emerging mental health effects are of serious concern, given that the extent and duration of the pandemic remain unknown and there are great variations in policy responses around the world regarding lockdown strictness, duration, and subsequent implications (Plümpier and Neumayer, 2020). In particular, the Greek government introduced a series of strict measures in March 2020, soon after the first confirmed COVID-19 case had been announced (Giannopoulou and Tsobanoglou, 2020) and continues to implement very strict protocols in accordance with the evolution of the pandemic.

The significant deterioration of the economy on a local, as well as on a global, scale brought upon by the prolonged countrywide lockdown paints a gruesome and terrifying vision of the future, especially for the individuals whose income has been decreased (Azim et al., 2020). Specific factors, such as being medically and/or socially vulnerable, having a negative physical health perception, and reduced social interactions due to the imposed control measures, may further increase severity of the experienced distress (Lahav, 2020). In addition, numerous negative emotions arise from the closure of schools, businesses, and community services (Larsen et al., 2021; Restubog et al., 2020; Sakka et al., 2020).

The danger and scope of the COVID-19 pandemic has led many people to experience an unexpected emotional turmoil (Wu et al., 2021) and many researchers to explore its impact. The main focus of recent research relied upon anxiety, depression, insomnia, and loneliness (Cénat et al., 2021; Nechó et al., 2021). Trauma-related symptoms have been studied comparatively less compared with the general psychological problems, possibly because the traumatic stressor is still ongoing (Hlores and Brown, 2020) or because there has been a debate regarding whether exposure to COVID-19 should be considered a traumatic event in line with the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition criteria for the PTSD diagnosis (Antóčević et al., 2021). Consequently, the construct of peritraumatic distress may be more appropriate to imprint the maladaptive psychological reactions as it refers to the physiological and/or emotional suffering during a period of ongoing traumatic exposure or shortly thereafter (Bunnell et al., 2018; Vance et al., 2018), an important index considering the traumatic potential of the current pandemic (Demertzis and Eyerman, 2020). In a recent study, this subjective initial reaction has been further linked to the progression of posttraumatic stress, depression, and anxiety symptoms (Megalakaki et al., 2021). In relevant studies in different countries, severe peritraumatic distress ranged from 6.81% in a sample of 329 Italian adults (Costantini and Mazzotti, 2020) to 14.1% in a sample of 1058 Iranian adults (Jahanshahi et al., 2020), 27.2% in a sample of 1371 Brazilian women (Abad et al., 2020), and 34.4% in a sample of 813 adults in South Korea (Yoon et al., 2020). Unfortunately, this situation can take its toll on people's psyche and mental state, as they face a dramatic change in their everyday routine, as well as the ever-increasing uncertainty about the future and the “postcoronavirus era.” Uncertainty, although a natural and unavoidable part of life, is also a prevailing cognitive state during health crises, as in the case of the ongoing pandemic (Rutter et al., 2020; Tandoc and Lee, 2020). Intolerance of uncertainty (IU) is related to personal traits and corresponding negative beliefs and represents the inability to handle and appropriately act toward uncertain situations or unpredictable future conditions (Carleton et al., 2007). Furthermore, IU does not represent only the negative perception of a threat, but it also represents the individual's incapacity to tolerate the unpleasant responses derived from the absence of sufficient information and strengthened by the perception of uncertainty (Carleton, 2016). In other words, the more intolerant to uncertainty someone is, the more distressed he/she will become when facing an uncertain situation, regardless of a negative or positive outcome (Freeston et al., 2020). As a construct, IU is involved in anxiety and mood-related disorders (Rosser, 2019), and specifically, during the COVID-19 outbreak, recent research has shown that IU was linked to adverse psychological outcomes (Parlapani et al., 2020a; Satici et al., 2020). Studies have already revealed that IU is...
related with the manifestation of anxiety and depression (Valle et al., 2020; Voitsidis et al., 2021), COVID-19 stress syndrome (Taylor et al., 2020), insomnia (Voitsidis et al., 2020), health anxiety, and obsessive-compulsive disorder (Wheaton et al., 2021), but up to this point, there is no study linking IU to peritraumatic distress.

In response to the unfolding crisis, the main focus is to successfully adapt to the challenges that threaten our functioning, development, and survival, or, in other words, to enhance resilience (Polizzi et al., 2020). There is a lack of consensus regarding an operational definition of resilience, but most of the suggested definitions include the concept of adapting and integrating positive functioning in the aftermath of adversity (Southwick et al., 2014). The evolving definitions of resilience, for example, as “the ability to maintain a stable equilibrium” (Bonanno, 2004, p 23); as “adaptability, strength, or flexibility in the face of a stressor” (Lerner and Yehuda, 2018, p 6); or “as the capacity of a dynamic system to adapt successfully to disturbances that threaten the viability, the function, or the development of that system” (Masten, 2014, p 6), imply that resilience is not a static construct. In fact, one person can be resilient in some domains of his/her life and at the same time struggle in another domain (Southwick et al., 2015).

The buffering effect of resilience relies on the individual’s ability to properly adapt to stress and withstand adversity, which corresponds, among other qualities, to a set of resilient coping patterns. In particular, resilient coping encompasses creativity, helpfulness, and positivity about the future, identification of alternatives using problem-solving skills to overcome obstacles, tenacity, and commitment to gain control and make early changes, rather than just reacting (Sinclair and Wallston, 2004).

The aim of the present study was to explore the presence of mental health difficulties and the ability to adapt during the first wave of the COVID-19 pandemic in Greece, that is, to specifically assess the perceived psychological distress, to investigate the role of IU as a potential predictor, and to further explore the moderating effect of resilient coping in the relationship between IU and peritraumatic distress. Thus, the first hypothesis was that IU would have a direct effect on symptoms of peritraumatic distress. Second, the association between IU and symptoms of peritraumatic distress would vary at different levels of resilient coping. That is, the association between IU and peritraumatic distress will be weaker at high levels of resilient coping and will remain strong at low levels of resilient coping.

METHODS

Participants and Procedure

The study was based on a convenience sample from the general Greek-speaking adult population. All adult men and women, able to speak Greek and complete an online survey, and currently living in Greece were eligible to participate. The survey was administered on the Qualtrics survey platform and was distributed via various social networking sites (i.e., Facebook, LinkedIn, Twitter) by sending the link. The survey took place over a 3-day period in mid-April 2020, 4 weeks after the imposed quarantine regulations in Greece. No rewards or payments were offered for participation.

Ethical approval was granted before the initiation of the study by the Review Board of the General Hospital “Papageorgiou” (563/2020). Informed consent before survey enrollment was a prerequisite for study inclusion. Confidentiality was assured, and participants were able to withdraw consent or discontinue participation at any time.

Measures

In addition to the basic demographic data (i.e., sex, age, education level, income, residential area), participants completed the following psychometric scales: the Peritraumatic Distress Inventory (PDI), the short version of the Intolerance of Uncertainty Scale (IUS-12), and the Brief Resilient Coping Scale (BRCS).

Peritraumatic Distress Inventory

The PDI (Brunet et al., 2001; Nikopoulou et al., 2021) is a 13-item self-report questionnaire that measures the level of distress experienced during a traumatic event or immediately thereafter. Items (e.g., “I felt I might die”) are rated on a 5-point Likert-type scale with response choices ranging from 0 (not true at all) to 4 (absolutely true). The inventory contains two subscales, one including seven items (items 1, 2, 3, 5, 6, 8, and 10) describing negative emotions and the other containing six items (items 4, 7, 9, 11, 12, and 13), targeting perceived threat and arousal. The total score, calculated by adding all item scores, ranges from 0 to 52. In this study, PDI demonstrated an overall Cronbach’s alpha of 0.85.

Intolerance of Uncertainty Scale

The IUS-12 (Carleton et al., 2007; Mantzios et al., 2015; Voitsidis et al., 2021) is a 12-item questionnaire measuring difficulty to tolerate uncertainty (e.g., item “Unforeseen events upset me greatly”). The scale consists of two factors. The first, Prospective IU, expresses the tendency of individuals to reduce uncertainty or increase certainty through active information seeking. The second, Inhibitory IU, refers to avoidance-oriented responses to uncertainty. Items are rated on a 5-point Likert-type scale ranging from 1 (not at all characteristic of me) to 5 (entirely characteristic of me). Total score ranges from 12 to 60 with higher scores indicating greater levels of IU. In this study, IUS-12 demonstrated an overall Cronbach’s alpha of 0.90.

Brief Resilient Coping Scale

The BRCS (Sinclair and Wallston, 2004) is a 4-item scale capturing tendencies to cope with stress in an adaptive manner (e.g., item “I look for creative ways to alter difficult situations”). Items are rated on a 5-point Likert-type scale ranging from 1 (does not describe me at all) to 5 (describes me very well). The sum score varies between 4 and 20 with higher scores denoting greater resilient coping. According to the original authors of BRCS, scores can be interpreted as follows: 4–13 = low resilient coping; 14–16 = medium resilient coping; 17–20 = high resilient coping.

The BRCS was validated in the Greek population in a previous study, conducted in 3029 individuals (Parlapani et al., 2020b). Analysis of the Greek BRCS were as follows: chi-square goodness-of-fit test $\chi^2(2) = 6.68$; root mean square error of approximation = 0.09; Comparative Fit Index = 0.87; Tucker Lewis Index = 0.82; standardized root mean square residual = 0.04. In this study, BRCS demonstrated an overall Cronbach’s alpha of 0.80.

Data Analysis

The highest percentage of missing data (at the variable level) was 16.4%. Little’s MCAR test indicated that data were missing completely at random. Data were imputed using the expectation-maximization algorithm in SPSS (Statistical Package for Social Sciences) Missing Value Analysis. It imputed missing values using maximum likelihood estimation with observed data in an iterative process (Graham, 2009).

Data and parameter estimates were presented as mean values, standard deviations (SD), or numbers and percentages. Categorical variables were assessed by contingency tables and chi-square statistics. The relationship between the PDI total score and influencing factors (sex, age, education, and resilient coping) was quantified by linear regression analysis. A moderator analysis was conducted to study the effects of resilient coping on the relationship of IU with peritraumatic distress. PROCESS macro was used to test the significance of the moderated model, and the Johnson-Neyman technique was applied for probing interactions (Hayes and Montoya, 2016). All other analyses were performed by the SPSS, version 26.0 (IBM Corp, Armonk, NY).
RESULTS
 Initially, a total of 3689 people responded to the survey and 2717 delivered fully completed forms reaching a response rate of 73.65%. After imputation, data collected from 3010 participants, 2232 females (74.1%) and 778 males (25.9%), were analyzed. More than half of the participants (55%) belonged to the age group 18–30 years, and almost half of them had a university degree (45.3%) and were living in an urban area (76.5%). Most of the participants reported a monthly income of less than €1500 (65.3% of male and 79.9% of female respondents) (Table 1).

Clinical Scales
 Female participants scored significantly higher than male participants in PDI and IUS-12, whereas there were no statistically significant differences in BRCS scores (Table 2). Resilient coping was negatively and significantly correlated with PDI ($r_p = -0.23, p < 0.001$; 95% CI, $-0.26$ to $-0.19$) and IU ($r_p = -0.21, p < 0.001$, 95% CI, $-0.25$ to $-0.18$), with correlation coefficients indicating a small effect size (Table 3).

Linear Regression Analysis
 Assumptions for linear regression analysis were conducted before running the analysis. All variables entered the equation simultaneously. The results of the linear regression model were significant, $F(19,2712) = 120.26, p < 0.001, R^2 = 0.35$, indicating that approximately 35% of the variance in PDI is explainable by sex, age, IUS-12, and BRCS. Education and income were not qualified as significant predictors of PDI (Table 4).

| Table 1. Sociodemographic Characteristics |                |                |                |
|------------------------------------------|----------------|----------------|----------------|
|                                          | Female (n = 2232) | Male (n = 778)  |                |
| Age                                      |                |                |                |
| 18–30                                    | 1165 (1162.7)  | 403 (405.3)    |                |
| 31–45                                    | 567 (571.0)    | 203 (199.0)    |                |
| 46–60                                    | 425 (414.5)    | 134 (144.5)    |                |
| 61–75                                    | 67 (75.6)      | 35 (26.4)      |                |
| >75                                      | 8 (8.2)        | 3 (2.8)        |                |
| Education                                |                |                |                |
| Elementary school                        | 9 (8.9)        | 3 (3.1)        |                |
| Middle school                            | 20 (24.5)      | 13 (8.5)       |                |
| High school                              | 635 (666.6)    | 264 (232.4)    |                |
| University                               | 1139 (1016.6)  | 332 (354.4)    |                |
| MSc                                      | 481 (461.2)    | 141 (160.8)    |                |
| PhD                                      | 48 (54.1)      | 25 (18.9)      |                |
| Income                                   |                |                |                |
| €<500                                    | 583 (575.2)    | 95 (100.81)    |                |
| €<1000                                   | 867 (864.1)    | 196 (182.82)   |                |
| €<1500                                   | 480 (482.4)    | 231 (236.74)   |                |
| €<2000                                   | 212 (213.13)   | 154 (138.21)   |                |
| €>2000                                   | 90 (77.12)     | 102 (94.85)    |                |
| Residential area                         |                |                |                |
| Big city                                 | 1734 (1724.1)  | 591 (600.9)    |                |
| Small city                               | 236 (244.7)    | 94 (85.3)      |                |
| Rural area                               | 262 (263.2)    | 93 (91.8)      |                |

Values formatted as observed (expected).

| Table 2. Sex Differences in PDI, IUS-12, and BRCS |                |                |                |
|------------------------------------------|----------------|----------------|----------------|
| Variables                                | Male           | Female         |                |
|                                          | M   | SD   | M   | SD   | t    | df  | p    | d   |
| PDI                                      |      |      |      |      |      |      |      |      |
| PDI-NE                                   | 19.53 | 5.66 | 22.58 | 6.71 | -11.32 | 3008 | <0.001 | 0.49 |
| PDI-PT/TA                                | 10.52 | 3.58 | 12.04 | 4.17 | -9.07  | 3008 | <0.001 | 0.69 |
| IUS-12                                   | 9.02  | 2.85 | 10.55 | 3.06 | -12.36 | 3008 | <0.001 | 0.51 |
| IUS/PA                                   | 30.03 | 9.03 | 33.90 | 9.84 | -9.65  | 3008 | <0.001 | 0.40 |
| IUS/IA                                   | 17.59 | 5.36 | 19.93 | 5.73 | -9.95  | 3008 | <0.001 | 0.42 |
| BRCS                                     | 15.86 | 3.43 | 16.02 | 3.32 | -1.12  | 3008 | 0.260 | 0.04 |

Moderation Analysis
 Moderation analysis was conducted to assess if resilient coping, assessed by BRCS, moderated the relationship between IUS-12 and PDI. Mean centering was used for IUS-12 and BRCS. In the first step, a simple effects model was created using linear regression with PDI as the outcome variable and IUS-12 as the predictor variable. In the second step, a noninteraction model was created by adding BRCS to the predictor in the linear model (Table 2). In the third step, an interaction model was created by adding the interaction between IUS-12 and BRCS to the predictors in the linear model (Table 2). Assumptions for linear regression analysis were conducted before the step 3 model (interaction model). IUS-12 significantly predicted PDI, $B = 0.38, t(2825) = 35.63, p < 0.001$. A partial $F$-test was conducted to determine if the interaction model explained more variance in PDI than the noninteraction model. The partial $F$-test, $F(1,2823) = 20.68, p < 0.001$, indicated that the interaction model explained significantly more variance compared with the noninteraction model based on an alpha of 0.05. Because IUS-12 significantly predicted PDI in the simple effects model (condition 1) and the interaction model explained significantly more variance than the noninteraction model (condition 2), then moderation is supported. The results of the simple, noninteraction, and interaction models showed that BRCS significantly moderated the effect IUS-12 had on PDI based on an alpha of 0.05, $B = -0.11, t(2823) = -4.55, p < 0.001$ (Table 5).

The moderating effect of BRCS on the relationship between IUS and PDI was explored via Johnson-Neyman analysis. At a 95% confidence level, the effect of IUS on PDI is significant for the entire range of measurements of BRCS (Fig. 1).

DISCUSSION
 The present study assessed the adverse psychological impact (reported distress and IU), as well as resilient coping during the initial outbreak of COVID-19 in Greece and after the government’s decision to impose strict and mandatory mass quarantine measures. The results indicated a moderate mental burden on the participants and medium resilient coping. The outcomes are in line with other research findings of the mental implications of the novel coronavirus pandemic in general populations (Kroska et al., 2020; Qiu et al., 2020).

More specifically, according to the PDI mean scores, study participants suffered from moderate peritraumatic distress related to COVID-19. The mean PDI scores were above the proposed clinical cutoff points for the progression of posttraumatic stress symptoms, which vary between 14 and 23 points (Bunnell et al., 2018). Although this observation does
not imply that posttraumatic symptoms are expected to certainly emerge, it offers an additional broader view of the psychological state of the respondents. It is likely that the excessive and frequent exposure to the negative aspects of the COVID-19 pandemic could have been an aggravating factor for the reported distress herein. Previous research has supported the negative and potentially traumatic impact of repeated exposure on the consequences of emerged public health crises via media or other sources (Garfin et al., 2020; Hall et al., 2019). Such behaviors emerge

| TABLE 3. Correlation of the Main Variables |
|----------------------------------------|
| Variables       | Statistic | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
|-----------------|-----------|-----|-----|-----|-----|-----|-----|-----|
| PDI             | r         | 1   |     |     |     |     |     |     |
|                 | p         | 0.00|     |     |     |     |     |     |
|                 | n         | 3010| 3010|     |     |     |     |     |
| PDI-NE          | r         | 0.944** | 1   |     |     |     |     |     |
|                 | p         | 0.000|     |     |     |     |     |     |
|                 | n         | 3010| 3010|     |     |     |     |     |
| PDI-PT/TA       | r         | 0.897** | 0.702** | 1   |     |     |     |     |
|                 | p         | 0.000| 0.000|     |     |     |     |     |
|                 | n         | 3010| 3010| 3010|     |     |     |     |
| IUS-12          | r         | 0.570** | 0.524** | 0.532** | 1   |     |     |     |
|                 | p         | 0.000| 0.000| 0.000|     |     |     |     |
|                 | n         | 3010| 3010| 3010| 3010|     |     |     |
| IUS/IA          | r         | 0.597** | 0.555** | 0.548** | 0.946** | 1   |     |     |
|                 | p         | 0.000| 0.000| 0.000| 0.000|     |     |     |
|                 | n         | 3010| 3010| 3010| 3010| 3010|     |     |
| IUS-12/PA       | r         | 0.455** | 0.410** | 0.435** | 0.920** | 0.746** | 1   |     |
|                 | p         | 0.000| 0.000| 0.000| 0.000| 0.000|     |     |
|                 | n         | 3010| 3010| 3010| 3010| 3010| 3010|     |
| BRCS            | r         | −0.047** | −0.054** | −0.032| −0.032| −0.036* | −0.022 | 1   |
|                 | p         | 0.009| 0.003| 0.077| 0.084| 0.048| 0.225|     |
|                 | n         | 3010| 3010| 3010| 3010| 3010| 3010| 3010|

PDI-NE, Peritraumatic Distress Inventory—Negative Emotion subscale; PDI-PT/TA, Peritraumatic Distress Inventory—Perceived Threat/Tense Arousal subscale; IUS/PA, Intolerance of Uncertainty/Prospective Anxiety subscale; IUS/IA, Intolerance of Uncertainty/Inhibitory Anxiety subscale.

| TABLE 4. Results for Linear Regression With Sex, Age, Education, IUS-12, and BRCS Predicting PDI |
|---------------------------------------------|
| Variable          | B    | SE   | 95% CI          | β    | t    | p    |
|-------------------|------|------|-----------------|------|------|------|
| Intercept         | 13.91| 0.73 | 12.47, 15.34    | 0.00 | 19.02| <0.001|
| Sex (female)      | 2.04 | 0.24 | 1.57, 2.51      | 0.13 | 8.50 | <0.001|
| Sex (male)        | 2.56 | 0.75 | 1.45, 2.66      | 0.06 | 2.38 | 0.102|
| Age >75           | −3.00| 2.07 | −7.06, 1.06     | −0.02| −1.45| 0.147|
| Age 61–75         | 2.20 | 0.64 | 0.94, 3.46      | 0.06 | 3.42 | <0.001|
| Age 46–60         | 1.02 | 0.32 | 0.39, 1.65      | 0.06 | 3.16 | 0.002|
| Age 31–45         | 2.44 | 0.74 | 0.75, 1.42      | 0.04 | 0.88 | 0.277|
| Age 18–30         | −0.18| 0.26 | −0.68, 0.33     | −0.01| −0.68| 0.494|
| Education PhD     | 0.20 | 0.70 | −1.17, 1.57     | 0.00 | 0.28 | 0.778|
| Education MSc     | 0.22 | 0.28 | −0.32, 0.77     | 0.01 | 0.80 | 0.423|
| Education high school | 0.03 | 0.24 | −0.45, 0.50     | 0.00 | 0.11 | 0.909|
| Education middle school | 2.56 | 1.07 | 0.45, 4.66     | 0.04 | 2.38 | 0.176|
| Education elementary school | 2.19 | 2.24 | −2.20, 6.57   | 0.02 | 0.98 | 0.328|
| Income <€500      | 0.25 | 0.40 | −0.68, 0.33     | −0.01| 0.78 | 0.493|
| Income <€1000     | 2.50 | 0.38 | −1.17, 1.57     | 0.00 | 0.36 | 0.084|
| Income <€1500     | 1.87 | 0.32 | −0.32, 0.77     | 0.01 | 0.99 | 0.123|
| Income <€2000     | 1.08 | 0.24 | −0.45, 0.50     | 0.00 | 0.22 | 0.509|
| Income ≥€2000     | 2.10 | 1.07 | 0.45, 4.66      | 0.04 | 2.38 | 0.176|
| IUS-12            | 0.37 | 0.01 | 0.33, 0.38      | 0.52 | 31.92| <0.001|
| BRCS              | −0.66| 0.03 | −0.29, −0.16    | −0.11| −7.09| <0.001|

Results: F(19,2712) = 120.26, p < 0.001, R² = 0.35.
beyond the observable or direct traumatic experiences, for example, patients hospitalized with COVID-19 (Xiao et al., 2020) or health care professionals battling on the COVID-19 frontline (Blekas et al., 2020). Although the latter may trigger more severe and noticeable emotional reactions, indirect repeated exposure to the consequences of a pandemic may result in substantial psychological burden that should be considered during the coordination of response programs.

Women experienced significantly higher levels of distress and showed higher levels of IU, compared with men. A broad body of research of mental health and behavioral outcomes during the COVID-19 pandemic has consistently documented similar sex differences, i.e., a higher psychological burden in women (Conversano et al., 2020; Parlapani et al., 2020b; Xiong et al., 2020). The same pattern regarding COVID-19 health risk appraisal and compliance processes was also observed in large samples across the globe (Galasso et al., 2020). On the contrary, resilient coping levels observed in this study did not significantly differ based on sex. This could be explained by cultural variables. Greece has undergone many challenges during the last decades, including the recent economic and financial crisis (Giannopoulou and Tsobanoglou, 2020). The participants have probably been confronted with the prolonged socioeconomic crisis, a fact that could partially explain the tendency for resilient coping as they are already "familiar" with hardships, holding promise of a better and sustainable future (Lahad et al., 2018).

The contribution of sociodemographic characteristics (i.e., sex and age) and dispositional factors (i.e., ability to cope with adversity and uncertainty) considered in this study accounted for about a third of the variance in peritraumatic distress. This indicates that there may be numerous predictors for increased distress. Specifically, women were more likely to report higher psychological distress related to the pandemic as already mentioned. Apart from female sex, middle and older age (over 46 years) significantly predicted total distress. Previous research has shown the adverse mental impact of the pandemic among older individuals in Greece (Parlapani et al., 2020a), whereas other studies reported a greater risk for more distress at younger ages, indicating that older people may be more resilient (Conversano et al., 2020; Liu and Heinz, 2020). Data from young Greek adults during the first wave of the pandemic in Greece suggested that almost 14% of the participants reported severe distress; female participants were at greater risk for distress (Patsali et al., 2020). Similarly, in a study that investigated early responses during the pandemic outbreak in the United States, young age and female sex emerged as vulnerability factors for elevated distress (Park et al., 2021).

As expected, current results supported a negative relationship between resilient coping and reported peritraumatic distress. Moreover, the moderation analysis revealed that peritraumatic distress is likely to worsen in face of uncertainty. IU triggers a vicious circle of worrying and negative thinking, whereas positivity seems to lessen the effects of IU in response to the coronavirus pandemic (Bakioğlu et al., 2021). Current results confirmed resilient coping as a moderator in the association between IU and the experienced peritraumatic distress. Thus, resilient coping moderates the association between IU and PDI in such a way that the positive relationship between IU and PDI is strengthened for high levels of resilient coping.

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a way that the relation between them weakens when resilient coping is high.

When individuals with high levels of distress face uncertainty, resilient coping is likely to decrease worry levels and act as a buffer against mental vulnerability and emotional distress. This means that the positive association between IU and peritraumatic distress is weakened if individuals respond at a high level of resilient coping, possibly by strengthening their belief that positive outcomes will eventually occur. Individuals are likely to actively seek information or find resolutions for dealing with all perceived uncertainties. This finding is in line with other research outcomes suggesting that self-regulatory resources seem to decrease COVID-19-related distress and promote psychological resilience (Park et al., 2021).

As proposed elsewhere, focusing on personal resilience, well-being (Kimhi et al., 2020a; Kimhi et al., 2020b), and positive reappraisal/ reframing (Shanahan et al., 2020) is considered critical to effectively manage the pandemic outcomes and minimize distress and danger appraisal. However, this does not ensure that prolonged periods of instability throughout the pandemic safeguard the maintenance of resilient coping (Kimhi et al., 2020b). During times of increased volatility, a key consideration is to acknowledge the impact of uncertainty on individuals and to lay foundations for effective coping in the aftermath. Resilient coping is likely to act as a protective factor that offers tolerance to distress, as well as a component that contributes to constructive appraisals of uncertain situations. Research of resilient coping and medical illnesses supports the potential preventive role of resilience toward the progression of posttraumatic symptomatology (Meister et al., 2016). This probably suggests that highly resilient individuals are capable of better managing stressful health crises despite the challenges, or the trauma-related sources per se, by gradually developing internal controls and adaptive coping skills.

The initial focus during the pandemic outbreak, a period of unbridled uncertainty regarding its progression and management, was mainly to assess psychological adversity and potentially negative mental health outcomes in order to inform prevention and recovery services. When implementing psychological interventions, the main target could be to enhance resilient coping by identifying individuals who experience less psychological resilience (Ran et al., 2020) and thus shift focus from risk to resilience. Resilience-based approaches can prepare an effective response for future crisis situations by building skills and competencies in individuals. Exploring resilient coping at the acute phase of this mass public health crisis provides useful information to support prevention initiatives, emergency responses, and treatment protocols. Future treatment options should be directed toward individuals’ ability to tolerate uncertainty as well as the ability to cope with stress in a highly adaptive manner, as both are considered especially beneficial (Rettie and Daniels, 2021).

**IMPLICATIONS AND LIMITATIONS**

After the outbreak of COVID-19, researchers over the world investigated the pandemic's psychological and behavioral impact and suggested interventions and strategies to ameliorate its consequences on mental well-being. Based on previous experience with infectious disease outbreaks, sociocultural and economic factors may influence the psychological responses to a pandemic. Moreover, individuals may be differently affected based on age, sex, and other personal or situational factors. Therefore, studies of different populations may contribute to the assessment of the global impact of COVID-19 on public mental health. To the best of our knowledge, this was the first study investigating the relation between peritraumatic distress, IU, and resilient coping in the Greek general population.

Taking into account that previous experience and studies during the first COVID-19 wave may be useful to confront challenges imposed by the prolonged quarantine measures, this study highlighted the association between IU and peritraumatic distress, as well as the moderating role of resilient coping. The current pandemic boosted information and communication technologies, which supported, among others, online education and remote patient monitoring. Some online/remote services offered advantages and are therefore expected to continue after COVID-19. Taken together, adapted forms of standard therapies, such as cognitive behavioral therapy, may be provided through online programs or applications to enhance tolerance to uncertainty and promote resilient coping. A recent conceptualization model highlighted the important role of the individual's beliefs about uncertainty in the development of stress (Hebert and Dugas, 2019). According to the theoretical model proposed by the researchers, the basic domains of the cognitive behavioral model of IU include the following: 1) triggers and the state of uncertainty; 2) catastrophic beliefs about uncertainty; and 3) emotional, cognitive, and behavioral sequelae and the interactions between these components (Hebert and Dugas, 2019). In line with this framework and based on the results of the current study, resilience training programs could be enriched by applying modules to tolerate uncertainty. Additional studies could further explore specific resilient coping patterns that may serve as the underlying link between cognitive vulnerability, such as IU, and perceived psychological distress. Moreover, the long-term psychological impact of COVID-19 remains to be evaluated. There are limitations, although that should be considered when interpreting the findings of this study. The cross-sectional design did not allow for interpretations of causality or possible mediator effects. In addition, the study was conducted through an online survey to obtain a larger amount of data during the quarantine and was based on self-reported measures. As a result, current findings may suffer from sample and response bias. Lastly, results may not be representative of the general population, because the respondents among the sample were not evenly distributed with regard to sociodemographic characteristics.

**CONCLUSIONS**

The present study highlights the significance of resilient coping during the COVID-19 pandemic. Study results designated IU as a significant positive predictor of peritraumatic distress, whereas resilient coping proved to be a significant moderator that alters the strength of the association between IU and distress reactions. Specifically, the association between IU and peritraumatic symptoms at high levels of resilience was weaker than at low levels of resilience. As the pandemic unfolds, further investigation of resilience's protective role is required, because more people are expected to become even more resilient, overcoming their initial confusion, disbelief, and uncertainty. The public's perception of COVID-19 and its relevant psychological consequences should be accurately investigated, because awareness of a phenomenon automatically modifies its consequences and negative psychological processes, alleviating additional harm brought on by the pandemic, as well as the inevitable postpandemic reconsiderations.

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**DISCLOSURE**

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The data that support the outcomes of the present study are available on demand from the corresponding author.

Ethical approval was granted before the initiation of the study by the Review Board of the General Hospital “Papageorgiou” (563/2020). Informed consent before survey enrollment was a prerequisite for study
inclusion. Confidentiality was assured, and participants were able to withdraw consent or discontinue participation at any time.

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