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In life satisfaction during the lockdown

First wave COVID-19 pandemics in Greece:
The role of demographic, social and geographical factors in life satisfaction during the lockdown

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Abstract

The onset of the coronavirus pandemic led to profound changes in populations' everyday lives. The main purpose of this research is to investigate the factors that affected life satisfaction during the first lockdown wave in Greece. A web-based survey was developed, and 4,305 questionnaires were completed corresponding to all Greek regional units. Statistical modeling (Multivariate Logistic Regression) was performed to evaluate in which extent significant geographical attributes and socioeconomic characteristics are likely to influence life satisfaction during the lockdown due to the pandemic.

In the course of the present work, key findings emerge: Social distancing and confinement measures affected mostly men in relation to women. There is a strong positive association between life satisfaction and age, especially as regards older population. The change in the employment status, the increase in psychosomatic disorders and the increased usage of social media are also likely to impact negatively people's life satisfaction. On the contrary, trust in government and the media and limited health concerns seem to have a strong association with subjective well-being. Finally, life satisfaction hardly depends on geographical characteristics like urbanity or insularity, highlighting that lockdown impacts on the Greek population regardless of the physical isolation.

Keywords: COVID-19, population, socio-demographic factors, life satisfaction, lockdown, multivariate logistic regression, Greece

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1. Introduction

From the beginning of the year 2020, COVID-19 has affected societies, economies, and individuals in every aspect. The increasing infection and mortality rate, substantial restrictions, prolonged lockdowns, and the economy's downturn have negatively affected most people's mental health and well-being (Gavalas, 2020). In Greece, the norm of life has changed, and the general population has adopted a new reality characterized by indefinite evolution and unpredictable effects on multiple levels. The Greek government has devised various strategies in an attempt to reduce and control the Covid-19 cases infection rate in the country. For instance, Greek authorities implemented a total lockdown policy from mid-March to help contain the pandemic. For such efforts, the nation has registered a significantly lower virus outbreak compared to other European countries (Peto *et al.*, 2020).

However, research shows that the two months of lockdown have affected the life satisfaction rate while isolation of individuals in closed-up settings affected most individuals both physically and psychologically (White and Van Der Boor, 2020). Beyond the direct effects on individual and collective health, the pandemic - due to the measures inevitably imposed by the governments - has caused significant collateral effects in terms of populations' well-being. Based on the results of a web-based survey (Anastasiou and Marie-Noëlle Duquenne, 2020), the objective of the present research is to explore to which extent main life satisfaction determinants – especially spatial, demographic, and social aspects – have contributed during the first lockdown period to deteriorate the general life satisfaction in Greece. The research also focuses on life attributes such as employment situations, demographic status, psychosomatic disorders, sleep patterns, health concerns, social life and trust in the government and media.

2. Literature Review

This study builds upon existing literature on life satisfaction and subjective well-being (Blanchflower and Oswald, 2000; Diener, Oishi and Tay, 2018; Oishi, Diener and Lucas, 2018). A growing number of studies documents worsening mental health status and well-being during the isolation period (Brodeur *et al.*, 2020; Davillas and Jones, 2020). During the period April/May 2020, life satisfaction in Europe was in moderate levels (mean=6.3 on a scale from 1 to 10) (Eurofound, 2020) (Map 1); especially young people and women are the demographic groups impacted most during the lockdown period. Paid jobs, living with a partner, and daily exercising are major determinants of well-being, while restrictions on mobility, changes in workload and decrease in income are associated with increased levels of anxiety and dissatisfaction (de Pedraza, Guzi and Tijdens, 2020).

An empirical question challenging the academic community is whether the policy decisions to tackle the spread of the pandemic affect peoples' anxiety, subjective well-being, and life satisfaction (Tubadji, Boy and Webber, 2020). The confinement measures and quarantine imposed in Italy were in line with the country's infections curve (Xuefei, 2020). That late interventions on lockdown enforcement impacted considerably the Italian population's well-being with significant disruptions in family life (Biroli *et al.*, 2020). The UK's policy response to the pandemic and consequently the lockdown was delayed. The UK and especially England experienced a significant reduction in life satisfaction and happiness during the national lockdown (UK Office for National Statistics, 2020). On the other hand, Sweden opted against lockdown. A significant part of the populations presented depression symptoms (McCracken *et al.*, 2020) but still, the life satisfaction levels during April/May were among the highest in Europe (Indipendent SAGE, 2020), demonstrating that strong democratic states deal with the pandemic with comparative advantages (Rambaree and Nässén, 2020).

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Map 1. Life satisfaction in selected European countries during April/May 2020 (scale 1-10)
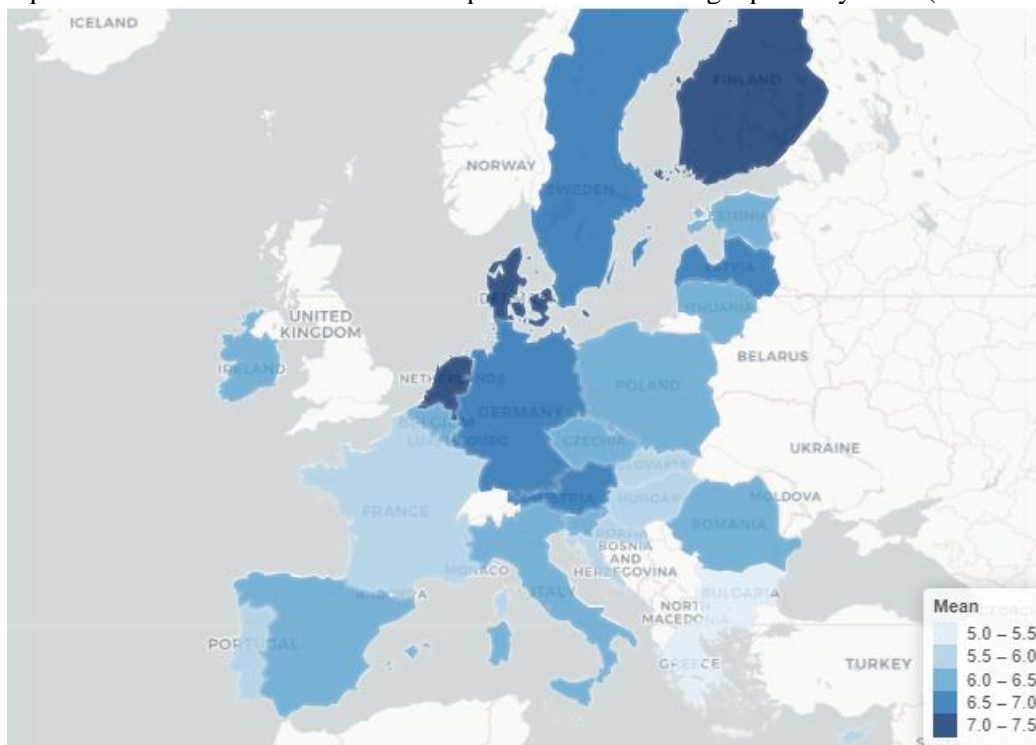
Source: (Eurofound, 2020)

Various studies have been conducting associated with life satisfaction during the isolation period in Greece. For instance, recent research in Greece (Anastasiou and Marie-Noëlle Duquenne, 2020) explores the determinants of social isolation across the nation during the lockdown period. Field research was conducted through questionnaires to collect data from the Greek population regarding social distancing and home isolation from March to April 2020. The results indicated that citizens complied with the social distancing measures; regardless, participants admitted to being affected socially and psychologically during the lockdown period. It was evident that the confinement measure affected the wellbeing of Greeks in different ways. The social isolation feeling was associated with unusual life patterns and adjustment to new lifestyle choices in regard to health, economy, socialization, and demographic status variations, among others.

Through a cross-sectional study addressing the psychological and behavioral responses of Covid-19 in Greece, (Parlapani, Holeva, Nikopoulou, *et al.*, 2020) examined various aspects related to the pandemic as fear, anxiety, depression, and social responsibility. An online survey was circulated via social media platforms anonymously. The questionnaire was based on socio-demographic questions, possible risk issues associated with COVID-19 distress, employee security, and health guidelines compliance. The study results showed great behavior responses in relation to the employment of safety measures. The female gender and older age population groups registered higher anxiety levels associated with pandemic related fear. Analyzing the psychosocial and behavioral impact of COVID-19, it clearly appears the necessity to implement preventive and supportive interventions.

Complementary research was conducted accessing loneliness and intolerance of uncertainty amongst older adults during the lockdown in Greece (Parlapani, Holeva, Nikopoulou, *et al.*, 2020). According to this study, the older adult population was considered more vulnerable to psychological disorders during the isolation period. The researchers did an online survey for three days assessing the socio-demographic status and psychological aspects of life. The

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majority of participants, especially women, registered moderate to severe anxiety symptoms, depressive symptoms, and disrupted sleeping patterns. Additionally, participants living alone presented higher levels of loneliness. Addressing and managing loneliness in older adults can help limit deleterious psychological effects during and post-COVID-19 pandemic.

Cambridge University Press published a research paper addressing the Greek health care system's challenges and opportunities on May 14, 2020 (Giannopoulou and Tsobanoglou, 2020). The study explored psychological impacts and physical health risks associated with isolation during quarantine measures. According to the authors, psychological distress associated with isolation might lead to psychosomatic problems, dysfunctional family and individual coping strategies, and alcoholism. The lockdown limited mental health care providers to the public and reduced staff that could render online counseling and consultation. Mental health patients are considered a risk to themselves and the people around them. Limiting health care provision played an essential part in the rapid increase of stress-related disorders during the quarantine.

During the same period, another online survey was conducted in order to analyze the psychometric characteristics among the Greek population associated with the quarantine period (Tsipropoulou *et al.*, 2020). The study included 2,970 participants who fully participated in the research, and results were recorded for analysis. The Greek government act to impose a total lockdown on all health care facilities is accredited to have reduced the spread of Coronavirus; however, mental health care providers lacked opportunities to access the mental health condition of people during the challenging moments. General anxiety and depression were presented by most participants, which was associated with survival mode and fear during the quarantine. Older adults, less educated individuals, and women registered higher levels of fear. The families in Greece experienced a financial deficit in one way or the other. In addition, there were increased demands during quarantine related to health care and basic needs provision; this is because people were financially unprepared for the pandemic and extensive control measures such as total lockdown (Routen *et al.*, 2020). Most people, especially in the lower social class, survive on daily financial income strategies either through small businesses or through providing cheap labor in various operations (White and Van Der Boor, 2020). Thus, due to the lockdown, they were enclosed without a source of income or employment benefits (Gavalas, 2020).

Limited income amongst families is associated with a number of negative outcomes that include family conflicts, domestic violence, and alcoholism, among others (Routen *et al.*, 2020). Parents present views suggesting that they had a hard time balancing their revenue and sustenance of family needs. Financial hardships during quarantine increased the risks of panic and mental disorders; this is considering that during the lockdown, people had no idea regarding the future.

The aims of the present study focus on the demographic, social, and geographical factors determining life satisfaction during the lockdown period in Greece. As aforementioned, there have been conducted a limited number of researches in Greece addressing issues like psychological distress and mental health posed by the pandemic. The differentiation of the present resides in the potential impacts of the geographical dimension on subjective well-being.

3. Data and Econometric Methodology

3.1 Data Sources

To accomplish the aims of the present study a web-based survey was conducted on the Greek population during the lockdown period (March to May 2020) posed by COVID-19 in Greece. The measurement instrument, that is a self-administered questionnaire, consists of four

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sections: (a) demographic characteristics of the population (10 questions) (b) characteristics on the respondents' psychosomatic situation (10 questions) (c) changes in everyday life before and during the lockdown (23 questions) (d) perceptions on COVID-19 social and economic developments (16 questions). Data were collected from a total of individuals aged 15 to 70 years while the sampling covers all regions of Greece (urban, rural areas, mountainous zones, and islands). 4,216 questionnaires were completed, corresponding to a 99% CI and margin of error of about 2%, in line with the demographic structure of the reference population. People over 70 years old were excluded from the analysis, considering that it should be difficult to obtain satisfactory representativeness since relatively few of them use the internet. It is estimated[1] that only 38% of the population 65-74 years are familiar with the internet against 99% for the youngest (18-34).

3.2 Variables Selection

Considering the determinants of life satisfaction during the lockdown, an immediate question arises: is it possible to detect different patterns between citizens' moderately satisfied and those highly satisfied in relation to the dissatisfied ones? Consequently, the dependent variable expresses *Life satisfaction during lockdown* (*SatDLock*) as perceived by the respondents. This variable is a categorical one measured on a three-point Likert scale; 1=Not Satisfied, 2=Moderate Satisfied, 3=Satisfied.

As regards the explanatory variables (Table 1), the first group of parameters concerns the demographic, social, and geographical components.

Table 1. Independent variables

Explanatory Variables	Label	Description	Data Sources
Gender	SEX	0 = Male 1 = Female	Own field research
Age	AGE	1 =15-24 2 = 25-39 3 = 40-54 4 = 55-64 5 = over 65	Own field research
Urbanity	URB	0 = Urban 1 = Rural	Own calculations
Insularity	INS	0 = Mainland 1 = Island	Own calculations
Family size	FAM	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)
Psychosomatic situation	PSY	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)
Employment situation	EMP	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)
Socialization on the internet	SOC	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)
Health concern	HEAL	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)
Changes in sleep patterns	SLEE	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)
Trust in government and the media	GOV	Scale [0-100]	(Anastasiou and Marie-Noëlle Duquenne, 2020)

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[1] https://www.businessmentor.gr/statistika-xrisis-internet-stin-ellada/ Business Mentor, 2018 Internet usage statistics in Greece

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The first interpretative variables are the classic demographic *Gender* and *Age*. Gender is a dichotomous variable taking for values, 0 for males and 1 for females while Age is classified into five big groups.

The respondents' place of residence was classified into two categorical variables, *Urbanity*, and *Insularity*. Settlements inhabited by more than 2,000 inhabitants are considered to be urban and settlements with up to 2,000 inhabitants are rural, in accordance with Hellenic Statistical Authority definitions (ELSTAT, 2001). The classification regarding insularity was built on the basis of whether an individual resides in a spatial unit in mainland Greece or on an island. These two variables allow taking into consideration the role of geographical proximity, referring to "physical distancing" (Torre, 2020).

Apart from the above mentioned categorical variables, the model also introduces seven interpretative variables that have been extracted through Principal Component Analysis (PCA) on the basis of 22 initial items related to the respondents' evaluation as regards their psychosomatic situation, their attitudes, and behavior during the confinement as well as their general perception of the situation. Afterward, the values of the seven extracted principal components have been transformed into a scale ranging from 0 to 100 (Anastasiou and Duquenne, 2020a). More precisely, these interpretive variables concern (i) the *Psychosomatic situation,* that is the level of somatic misfunctioning due to stress posed by COVID-19 (ii) *the Employment situation*: monitors the individuals' current employment status based on working hours, employment type, job position and teleworking (iii) the *Changes in sleep patterns during the confinement*: shifts in sleep and bedtime schedule (iv) *Socialization on the internet*: the level of internet usage in order to communicate with friends (v) *Family* situation: a relative measurement of the family size, considering the existence of a marriage and children (vi) *Health concern*: the level of worries about contracting the COVID-19 (vii) *Trust in government and the media*: the level people agree with government's response towards COVID-19 and their perception on news credibility.

3.3 Econometric Model and Model Specification

The present analysis attempts to investigate the likelihood of the Greek population to be satisfied with life during the lockdown period posed by COVID-19. A multinomial logistic regression analysis has been implemented to explore the association between the independent and the interpretative variables. The econometric model is based on cross-sectional data as it studies a sample of 4,305 individuals during the period of confinement measures. The general model is as follows:

$$prob(Y = j) = \exp(a_{0j} + \beta_{1j}X_1 + \ldots + \beta_{nj}X_n / \sum_{i=1}^{m} \exp(a + \beta_{1i}X_1 + \ldots + \beta_{nj}X_n) \qquad (1)$$

$$\ln\left[\frac{prob_{(i)}}{prob_{(j)}}\right] = a_{0i} + \beta_{1i}X_1 + \ldots + \beta_{ni}X_n + \varepsilon_i \qquad (2)$$

For the purposes of the present study, a logit for the time period was estimated, to capture the changing contribution of the geographical, demographic, and social determinants. In particular:

$$\begin{aligned} prob(Y &= SatDlock) \\ &= a_0 + \beta_1 SEX + \beta_2 AGE + \beta_3 URB + \beta_4 INS + \beta_5 FAM + \beta_6 PSY \\ &+ \beta_7 EMP + \beta_8 SOC + \beta_9 HEAL + \beta_{10} SLEE + \beta_{11} GOV + \varepsilon \end{aligned}$$

where $prob(Y = SatDlock)$ presents the odds of the probability that an individual was moderately satisfied or highly satisfied rather than dissatisfied with life during the lockdown period. Consequently, the reference category in the model is "1=Not satisfied with life" and ε stands for the disturbance term.

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In most empirical studies, the contribution of gender to life satisfaction appears to be significant (Della Giusta, Jewell and Kambhampati, 2011; Audette *et al.*, 2019; Joshanloo and Jovanović, 2020). It is often observed that men present higher depressive symptoms than women because they are often tasked with the responsibility of provision within the family (Kalmijn, 2011). In times of COVID though, females are more likely than males to report worse mental health (Moyser, 2020) and consequently, life satisfaction. So, in the context of the present research, it is expected that Greek women experience dissatisfaction more intensely than men.

Part of the relevant literature on the linkage between COVID-19 with age patterns suggests that the younger generation ranging from 35 years and below, reported sensitiveness in social distancing (Glowacz and Schmits, 2020) and having been made lonelier and sadder by the lockdown (Sakka *et al.*, 2020). The separation from family and friends took a tougher toll on Greece's younger population (Papandreou *et al.*, 2020). On the other hand, prolonged loneliness, especially among older adults, is commonly associated with mental disorders such as depression (Frogoudaki *et al.*, 2020). The age forces, therefore, are more likely to increase the pressure on life satisfaction, especially concerning young people under 35 years and the elderly.

Research also supports that geographical distancing has more detrimental effects on people's life satisfaction. Although, in general, the densely populated areas record higher levels of satisfaction (OECD/European Commission, 2020), the pandemic contributes to adverse footprints. The urban population is less likely to feel happiness and subjective well-being than the rural inhabitants (CSO - Central Statistics Office, 2020). The rural dwellers develop strong social ties and achieve a sense of belonging (Sørensen, 2014). Air quality and housing affordability also constitute factors leaning in favor of rural happiness (Burger *et al.*, 2020). As regards the well-being of islanders during the confinement measures, few researchers explored this topic. A study implemented in the three islands of Jersey, Guernsey, and Ile of Man (Island Global Research, 2020) has shown that islanders declared relatively important levels of well-being and optimism on COVID reaction.

The confinement measures adopted by the Greek government had severe repercussions on the well-being and mental health of the Greek population. The act of isolation is associated with increased anxiety and psychological distress in Greece from March to May 2020 (Anastasiou and Duquenne, 2020). Apart from the fear associated with a deadly virus with no cure, there are concerns regarding the psychological consequences of quarantine and other social distancing measures. Disrupted sleeping patterns are also recorded during the lockdown period (Parlapani, Holeva, Voitsidis, *et al.*, 2020) highlighting shifts in going to bed and waking up hours (Cellini *et al.*, 2020; Marelli *et al.*, 2020).

The history of pandemics is traditionally linked with indirect costs in labor dynamics (Brodeur *et al.*, 2020). During the lockdown, Greece's labor market was characterized by work absenteeism, fewer working hours, increased non-active people, and more homework (OECD, 2020). There was observed a significant increase in unemployment in Greece as expected, considering the global pandemic. Statistics show that the unemployment rate in June was 11% higher compared to the same month in the previous year (ELSTAT, 2020). The difference is associated with a lack of normal job employment peaks by the tourism industry. Nevertheless, there were few opportunities for stemming jobs and no income for self-employed individuals and business operators. The private sector sustains a big percentage of the Greece labor market as a primary source of income. Also, most young workers in Greece that were at the beginning of their careers or those with medium-level qualifications were displaced by their respective organizations with no future certainty of job security. The fact that many employed Greeks were working from home for fewer hours, others were on unpaid leave, and few had lost jobs, especially in the private sector, makes them more vulnerable to life dissatisfaction pressures.

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Socialization via online platforms was an essential coping strategy for the majority of population groups and organizations during the lockdown period (Deepa, 2020). Due to the lockdown, people were forced to remain indoors, forcing the government and business operators to adopt digital working strategies. Social media was the only digital exodus for people to socialize and communicate about life and other common aspects of society (Sakka *et al.*, 2020). Most of these networks' trending topics were characterized by financial hardships, health progress and concerns, and survival mechanisms, among other agendas (Chen *et al.*, 2020). Through online social platforms, people could follow up and give opinions regarding government measures and strategies concerning their well-being during the quarantine.

Fear is a common reaction of human beings when faced with challenging experiences that threaten their future and that of loved ones (Blekas *et al.*, 2020). The general public has a tendency to worry about contracting the virus (McKay *et al.*, 2020). Especially women are more likely to have emotional reactions, worries, and concerns regarding family health (van der Vegt and Kleinberg, 2020).

Through various organizations, the government provided updates and guidance to people via media outlets to ensure they are informed and involved in the process (Chen *et al.*, 2020). Greek people presented information and evidently followed and trusted their government's advice in the fight against COVID-19 (Anastasiou and M-N. Duquenne, 2020). At the lockdown moment, Greece was doing comparably well considering other European nations' states during the same period (Peto *et al.*, 2020). The government prioritized human lives' safety regardless of the country's hard economic status (Li and Wang, 2020).

4. Results

The sample consists of 4,305 valid questionnaires of which 70% consists of females and 30% of males (Table 2). This unfortunately unbalanced sample is partly due to the data collection method (web-based survey) but it also may suggest that, during the confinement, women were more likely to participate in the survey than men as it has been quite often observed in sociological surveys (Curtin, Presser and Singer, 2000; Singer, Van Hoewyk and Maher, 2000; Moore and Tarnai, 2002). It is also not surprising that the elderly (65 years and over) are under-represented due to the fact that few of them, especially in Greece, use the internet and/or computer (Alexandrakis, 2017).

Table 2. Descriptive Statistics of categorical variables

Covariates		Overall N(%)	Life Satisfaction during the lockdown			
			None	Moderate	High	p-value
Overall N (%)		4256 (100)	1551(36.4)	1518(35.7)	1187(27.9)	
Gender	Male	1249 (29.0)	493 (39.5)	428 (34.3)	328 (26.3)	.029
	Female	3056 (71.0)	1076 (35.2)	1106 (36.2)	874 (28.6)	
Age	17-24	722 (17.0)	284 (39.3)	250 (34.6)	188 (26.0)	
	25-39	1954 (45.9)	720 (36.8)	720 (36.8)	514 (26.3)	
	40-54	1167 (27.4)	406 (34.8)	409 (35.0)	352 (30.2)	.002
	55-64	347 (8.2)	131 (37.8)	111 (32.0)	105 (30.3)	
	> 65	66 (1.6)	10 (15.2)	28 (42.4)	28 (42.4)	
Urbanity	Urban	3957 (93.9)	1450 (36.6)	1403 (35.5)	1104 (27.9)	.607
	Rural	259 (6.1)	88 (34.0)	99 (38.2)	72 (27.8)	
Insularity	Mainland	3739 (88.7)	1350 (36.1)	1342 (35.9)	1047 (28.0)	.357
	Island	477 (11.3)	188 (39.4)	160 (33.5)	129 (27.0)	

As regards life satisfaction during the lockdown, more than one-third of respondents declared to be not satisfied while almost 30% reported being highly satisfied. Sex and age structure are statistically significant among life satisfaction outcomes (p<.05). A total of 88 (34.0%) people

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residing in rural areas and 188 (39.4%) in islands declare to be dissatisfied with life during the lockdown. However, χ^2 tests do not suggest a statistically significant relationship between urbanity (p>.05) or insularity (p>.05) with life satisfaction levels.

Two regression models were applied (Appendix) to evaluate the impact of geographical, demographic, and social parameters on the risk of feeling dissatisfied with life during the lockdown in Greece. The results depict considerable alterations in the significance levels of specific variables. More specifically, *Urbanity, Insularity, Family size,* and *Changes in sleep patterns* are not significantly predictive (*p*>.05). The model presented (Table 3) contributes to evaluate the statistically significant predictors during the lockdown period on satisfaction with life.

The likelihood ratio statistics are highly significant ($\chi^2 = 947.612$; $p < .000$), (AIC = 8388.923) suggesting a good model fit. The percent of well-predicted classification (50%) is higher by the Proportional by Chance Accuracy Rate (42.2%) confirming the strong explanatory power of the model.

Table 3. Multinomial logistic regression models predicting satisfaction with life during the lockdown, based on the demographic and social factors.

Not satisfied with life (Ref.)	Moderate Satisfaction			High Satisfaction		
	OR	*p*-value	95% CI	OR	*p*-value	95% CI
Intercept		.014			.125	
Gender						
Male	.63	.000	0.529-0.750	.449	.000	0.368-0.549
Female (*Ref.*)						
Age						
15-24	.573	.169	0.258-1.268	.613	.251	0.266-1.414
25-39	.539	.117	0.249-1.167	.517	.110	0.231-1.160
40-54	.439	.037	0.203-0.952	.433	.043	0.193-0.973
55-64	.338	.008	0.152-0.751	.332	.010	0.144-0.768
> 65 (*Ref.*)						
Psychosomatic situation	.569	.000	0.523-0.618	.340	.000	0.309-0.375
Employment situation	.815	.000	0.748-0.887	.747	.000	0.678-0.824
Socialization on the internet	.885	.002	0.820-0.954	.871	.001	0.799-0.948
Health concern	1.526	.000	1.413-1.647	2.085	.000	1.905-2.282
Trust in government and the media	1.292	.000	1.195-1.398	1.479	.000	1.349-1.623

A first insight is extracted interpreting the regression analysis results; the predictors in moderate satisfaction feeling become more intense in the case of high satisfaction. As regards gender, women have 1.59 (OR=0.630, p<.001) and 2.9 times (OR=0.449, p<.001) the odds of feeling moderately and highly satisfied respectively, compared to men. The age structure also plays an important role, especially in ages greater than 40 years. Individuals aged 65 years and over have an increased chance of feeling very satisfied with life in relation to those aged 40-54 (OR=0.433, p<.05) and 55-64 (OR=0.332, p=.001). This finding may be due to the increased anxiety of the middle-aged people to respond to the social or economic requirements.

The dissatisfaction feeling during the lockdown rather than a moderate or high satisfaction feeling increased by 43% (OR=0.569, 95% CI: 0.523–0.618) and 66% (OR=0.34; 95% CI: 0.309–0.375) respectively for each increase of one unit in the psychosomatic situation. In other words, citizens considering their psychosomatic situation sensitive are much more likely to suffer from measures that enhance social isolation. This means that the pandemic can eventually

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cause additional forms of health problems. Furthermore, the employment situation scale is associated negatively with satisfaction levels. A change in working hours or employment status reduces by 25% life satisfaction (OR=0.871; 95% CI: 0.799–0.948). The uncertainty in terms of employment generated by the restrictive measures on economic activity clearly increases (in non-negligible proportions) the dissatisfaction feeling. Finally, dissatisfaction seems to be associated with an increase in socialization on the internet, in relation both to moderate (OR=0.885; 95% CI: 0.820–0.954) and high levels of life satisfaction (OR=0.747; 95% CI: 0.678–0.824). The expected negative impact of social media on peoples' subjective wellbeing highlights the need to get connected with those appearing happy and satisfied with their lives. Health concern was statistically significantly associated with reporting higher levels of life satisfaction (OR = 2.085; 95% CI: 1.905–2.282 for a 1-unit increase on health concern scale), meaning that the individuals worried about being infected, either them or their loved ones, are feeling dissatisfied with life. Higher trust levels in the government and the media were also associated with higher satisfaction with life (OR=2.085; 95% CI: 1.905–2.282). This particular finding is of major importance as addresses the tolerance levels towards the policies implemented against the pandemic.

The findings of the analysis are consistent with previous studies. Happiness in life span follows a U-shaped trend, reflecting greater satisfaction in the elderly rather than the middle-aged people (Frey and Stutzer, 2002; Kutubaeva, 2019). Women report higher life satisfaction than men, as shown by studies not taking into consideration emergency situations like COVID-19 (Joshanloo and Jovanović, 2020). Social media usage, despite the apparent advantage of socialization, is negatively associated with life satisfaction (Stieger, 2019). Likewise, both the mental health of the population and the instability of employment status posed by the COVID-19 outbreak have also led to life dissatisfaction (de Pedraza, Guzi and Tijdens, 2020). Finally, trust in government and the media, in line with previous research conducted in Greece (Georgakopoulos, 2020), enhances life satisfaction.

5. Conclusion

The confinement measures implemented by the Greek government in March 2020 played an essential role in reducing and controlling COVID-19 response across the nation (Li & Wang, 2020). However, the act had massive consequences on the well-being and the lives of the population across the country. The present study provides substantial information on the determinants of life satisfaction during the lockdown.

One of the primary factors that affected the Greek population during the pandemic is the demographic. Men seem to be more vulnerable than women in terms of satisfaction. This finding is not in line with the recent bibliography presenting women to be confronted with negative emotions and psychological distress in times of COVID-19. Nevertheless, the men's well-being is conditional on both family responsibilities and the feel of freedom out of the house, consequently, the vulnerability of the Greek male population in relation to the female constitutes a sensible outcome. As regards the contribution of age, it appears that the older population is more satisfied in life during the lockdown in relation to the 40-54 and 55-64 years old, whereas the younger do not participate statistically significantly.

People faced psycho-social challenges associated with their adapted living styles during the isolation period. The most common challenges amongst Greeks included psychological and psychosomatic disorders, employment situations, and social media usage.

Media outlets were the primary sources of information for the majority of the Greek population and essential determiners of people's life satisfaction. Considering it is the first pandemic-related emergency in Greece, the government adopted measures to protect people's human lives. The measures obtained to tackle the spread were effective since Greece was doing

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relatively well compared to other European countries and this outcome is reflected in the population's trust.

On the other side, changes in everyday sleep patterns do not seem to have a significant effect on the subjective well-being of the Greek population. Furthermore, the geographic differences do not show a statistically significant footprint in life satisfaction during the lockdown, either concerning urbanity or insularity.

Overall, the potential positive impacts of a mandatory mass lockdown must be carefully weighed in relation to the possible psychological costs. The Greek government's response to the first wave of the pandemic was effective, reducing the number of cases. In terms of satisfaction, however, there emerge concerns about the tolerance levels of the population pending a second phase of the pandemic.

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Appendix

Table A. Life satisfaction during and before the lockdown, Likelihood Ratio Tests – Accepted Model

Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	8388,923	8528,757	8344,923ª	,000	0	.
Psychosomatic situation	8943,944	9071,065	8903,944	559,020	2	,000
Employment situations	8423,446	8550,567	8383,446	38,522	2	,000
Socialization on the internet	8398,137	8525,259	8358,137	13,214	2	,001
Health concern	8673,631	8800,753	8633,631	288,708	2	,000
Trust in government and the media	8463,321	8590,443	8423,321	78,397	2	,000
Sex	8449,743	8576,865	8409,743	64,820	2	,000
Age	8393,929	8482,914	8365,929	21,006	8	,007

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Table B. Life satisfaction during the lockdown, Likelihood Ratio Tests – Rejected Model

Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	8228,689	8418,774	8168,689ª	,000	0	.
Psychosomatic situation	8760,938	8938,350	8704,938	536,249	2	,000
Employment situations	8255,174	8432,586	8199,174	30,484	2	,000
Socialization on the internet	8234,700	8412,112	8178,700	10,010	2	,007
Health concern	8509,838	8687,250	8453,838	285,149	2	,000
Trust in government and the media	8286,398	8463,811	8230,398	61,709	2	,000
Changes in sleep patterns	8224,951	8402,363	8168,951	,261	2	,878
Marital Status	8226,728	8404,140	8170,728	2,038	2	,361
Urbanity	8225,296	8402,708	8169,296	,606	2	,738
Insularity	8226,087	8403,500	8170,087	1,398	2	,497
Sex	8289,761	8467,173	8233,761	65,072	2	,000
Age	8224,272	8363,668	8180,272	11,583	8	,171

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.