

## Original Article

# Financial Crises: What is the Impact on Suicidality Rates?

**Christodoulos Charalambous, RN, MSc**  
Nursing Department, Frederick University, Cyprus

**Evanthia Asimakopoulou, RN, MSc, PhD**  
Lecturer, Nursing Department, Frederick University, Cyprus

**Ioannis Dimitrakopoulos, RN, MSc**  
Special Teaching Staff, Nursing Department, Frederick University, Cyprus

**Agathi Argyriadi, MA, MSc, PhD**  
Lecturer, Department of Psychology, Frederick University, Cyprus

**Vassiliki Krepia, PhD**  
General Hospital "Sismanogleion", Athens, Greece

**Despina Sapountzi-Krepia, RN, MSc, PhD**  
Professor, Nursing Department, Frederick University, Cyprus

**Alexandros Argyriadis, RN, BSc, MA, PhD**  
Assist. Professor, Nursing Department, Frederick University, Cyprus

**Correspondence:** Evanthia Asimakopoulou, RN, MSc, PhD, Lecturer, Nursing Department, Frederick University, Cyprus [hsc.ae@frederick.ac.cy](mailto:hsc.ae@frederick.ac.cy)

## Abstract

**Introduction:** A growing body of research evidence from countries around the world indicates that economic recession is associated with increases in suicide, particularly in males of working age.

**Aim:** To explore the impact of the economic crisis on the growth of global suicide. Sub-goal of the study is to investigate the mediators affected by the economic crisis and lead to suicide. Specifically, years 2018 and 2019 are the most recent periods of a long-term recession when people were used to this situation. The researchers of this study found great interest on the way suicidality rates behave after a condition of social stability.

**Material and Method:** This is a systematic review. The search was conducted in Pubmed, Cochrane and Cinahl databases. The key words used, were: «financial crisis» and «suicide»with several combinations. We included quantitative articles that were published in the English language from 2018 to 2019 concerning economic recession and suicide.

**Results:** From the initial search, 223 articles were found. 43 articles were rejected after reviewing the title and other 26 articles which did not meet the inclusion criteria. After detailed review, 13 relevant articles were retrieved.

**Conclusions:** It seems that there are some interventions that are believed to improve the negative psychological effects of the economic recession on the population, most of which require action at the governmental level to prevent suicide. Policymakers have been activated to take evidence-based effective measures for the promotion of public health in the context of the economic downturn.

**Key-words:** Financial crisis, recession, suicide, crises.

## Introduction

The financial crisis that is obsessing many European countries currently has begun since 2008 and its impact on European citizens's mental health is evident as the years go by. Various theories have been developed in the past

in which it has been recognized that periods of economic uncertainty are associated with an increase in suicides (Durkheim, 1952; Morselli, 1882; Swinscow, 1951). The World Health Organization (WHO) published concerns about the impact of financial crisis on global health, as a significant impact of austerity (WHO 2009,

WHO 2014). The financial crisis seems to have had an increasing impact on people's lives in recent years, and suicide rates appear to be increasing rapidly (WHO, 2014). The financial crisis with all its consequences associated with loss of income, unemployment, loss of employee insurance coverage, threatens the smooth and efficient functioning of health systems that are directly dependent on social security and social protection systems (WHO, 2014). The increase of the negative impact of the economic crisis on health has recently been doubled (Argyriadis, 2017; Marketou and Argyriadis, 2016). The loss of income is turning people into seeking help to meet their health needs mostly in public health care units. This results in an increase in the proportion of patients unable to pay and the need for subsidized care to increase significantly (WHO-b, 2009). A serious financial crisis has always serious health implications, creates problems in the financing of health systems, and burdens the functioning of public health care units due to increased demand (Argyriadis, 2016). Society and the welfare services at the same time, are trying to manage the reduced health budgets. Reducing the budget for health could prove problematic as health care requirements, such as mental health, increase during the economic downturn. The need to allocate scarce financial resources properly becomes even more urgent (Argyriadis, 2016, WHO-b, 2009). A growing body of research has further studied the relationship between the economic downturn and the increase in suicide rates. For example, during 1997-98 the crisis in East Asia led to approximately 10,400 additional suicides in Japan, Hong Kong, and South Korea (Chang et al., 2013). The economic downturn in Europe, the US and Australia has also been associated with increases in suicide rates (Stuckler et al, 2009; Stuckler et al., 2012). Comparative studies from previous periods of recession show that the association between unemployment and suicide rates varies with age, gender, and demographic characteristics of the working-age population while the impact varies with social protection policies (Morrell et al, 1993 , Stuckler et al, 2009). A number of studies have reported an increase in suicides following the 2008 economic downturn in the United Kingdom (Barr et al, 2012), the US, (Reeves et al, 2012) Greece (Fountoulakis et al, 2012; Fountoulakis et al, 2013; Economou et al, 2011) and a large proportion of Europe (Kentikelenis et

al., 2011; Karanikolos, et al., 2013). In their recent assessment of the global impact of the crisis, Chang et al. (Chang et al., 2013) estimated that there were an additional 5,000 suicides in 2009 compared to 2007 in the 54 countries studied. So, it becomes clear that a further study of the most recent studies on this issue is more than essential (Argyriadis et al., 2019).

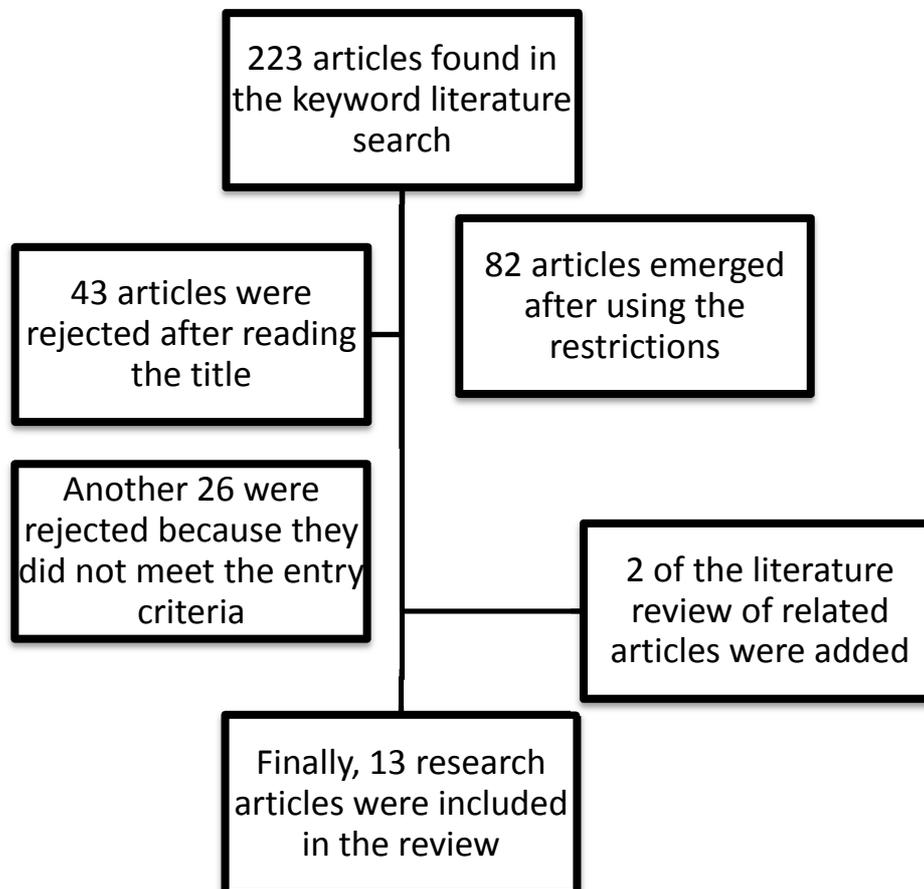
**Method:** This study is a systematic review of the literature. Its purpose is to study the impact of the financial crisis on the rise of suicides, worldwide. The main objective of the study is to investigate the mediating factors that are affected by the economic crisis and lead to suicide. In addition, the research aims to record the rates of suicides as they change over time. The bibliography was searched in the databases of Google Scholar, PubMed, Cochrane and Cinahl. The keywords: suicide, financial crisis and economic downturn, were used in both Greek and English with various combinations and links. The validity of the articles was ensured by the criterion that the selected articles were used extensively in a large population, indicative of the impact factor of each journal in which each article was published. The articles were preceded by a discussion between the members of the research team. After the collection and final selection of the articles the articles were divided by date, type of research and were grouped according to the common thematic and methodological tools used to process the data and issue results.

#### Criteria for including articles into the study

- Articles must have been published in valid and reputable scientific journals uploaded on the online scientific databases Google Scholar, Pubmed, Cochrane and Cinahl data.
- Articles must have been published within the last two years,
- The publication languages should be limited to English and Greek.
- Open access to the full text of the studies.

#### Criteria for exclusion

- Articles that do not offer open access
- Articles written in languages other than Greek and English
- Simple bibliographic reviews



## Results

223 articles resulted from the search, 43 articles were rejected after reading the title and 2 were added from the bibliography study of the relevant articles. Finally, 13 research articles were included in the review that study this phenomenon. In 2019, Economou et al., studied the “Association of economic hardship with depression and suicidality in times of recession in Greece”. The present study aims to fill this gap by investigating the relationship between income and economic difficulties in evoking major depression and suicidality in Greece, while taking into consideration gender differences. A random and representative sample of 2188 adults

participated in a telephone survey in 2013 (response rate = 81%). Major depression and suicidality were assessed with the pertinent modules of SCID-IV; while financial difficulties were measured by the Index of Personal Economic Distress. Income exerted an independent effect on major depression (OR = 0.37, 95%CI = 0.22–0.63), which was more pronounced among men than women. On the contrary, financial difficulties exerted a strong and independent effect on depression (OR = 1.16, 95%CI = 1.13–1.2). The “Impact of economic crises on mental health care: a systematic review” by Silva et al, 2018 had the aim to summarise the empirical evidence on the association between periods of economic crisis

and the use of mental health care. The results from the included articles suggest that periods of economic crisis might be linked to an increase of general help sought for mental health problems, with conflicting results regarding the changes in the use of specialised psychiatric care. The evidence on the use of mental health care specifically due to suicide behaviour is mixed. The results also suggest that economic crises might be associated with a higher use of prescription drugs and an increase in hospital admissions for mental disorders. Research on the impact of economic crises on the use of mental health care is scarce, and methodologies of the included papers are prone to substantial bias Stylianidis and Souliotis (2019), studied “The impact of the long-lasting socioeconomic crisis in Greece”. They state that since 2009, Greece has experienced a long-lasting socioeconomic crisis that has had substantial consequences on the health and mental health of the population. Unemployment, financial hardship and income loss constitute the hallmarks of the socioeconomic landscape. Consequently, a substantial decline in health and mental health has been documented. Converging evidence corroborates a deterioration of self-rated health, an alarming rise in suicide rates and a gradual increase in the prevalence of major depression. Concomitantly, the healthcare system is on the verge of collapse and the mental healthcare system is incapable of addressing the emerging needs. Therefore, a multifaceted and concerted effort is urgently needed to mitigate the mental health effects of the recession.

In 2019, Economou et al, designed a study about the “Problem Gambling in Greece: Prevalence and Risk Factors During the Financial Crisis”. The study aimed to estimate past year prevalence of problem gambling, explore socio-economic and demographic differences among gamblers and non gamblers, explore socio-economic and demographic differences among gamblers who started gambling prior and during the downturn and identify its risk factors with a special interest in the influence of the recession. A random and representative sample of 3,404 people participated in the telephone survey and 2,400 in the patron survey. Findings indicated that 2.4% of respondents met criteria for problem gambling and increase in suicidality. Male gender, minority status, living with family of origin, low educational level and low to zero income were

found to constitute the risk factors of the disorder. Moreover, having started gambling during the recession increased the odds of suffering from problem gambling; however this finding was gender-specific. Thus, people end up in problem gambling through various pathways, with these trajectories being different for men and women.

Suicide, sentiment and crisis” was a study conducted by Collins et al, in 2019. This study set the hypothesis that this influence broadly translates as emotional reaction, ‘gut feelings’ and as such explicitly considers the use of subjective factors of economic performance to better explain variations in suicide rates. Results show that consumer sentiment is found to offer a significantly greater explanatory role in exploring variations in the suicide rate compared to traditional economic indicators. Moreover, the effect of consumer sentiment is greater for females than for males, with some nuances in explaining this result. State public and health expenditures do not seem to have any significant influence on suicide rates. “From Suicide Due to an Economic-Financial Crisis to the Management of Entrepreneurial Health: Elements of a Biographical Change Management Service and Clinical Implications” was another study in 2019, by Turchi et al. Although suicide is considered in intentional terms, in many situations the choice of the act can take place in hurried and rushed moments and, tendentially, in solitude. For these reasons, any interventions and services must know how to be flexible and organize themselves to intercept such occurrences. Consequently, a 24 h availability can make it possible to intercept precisely those moments in which the act may occur almost undisturbed, for instance at night, when the person is alone and without the possibility of talking to someone. This makes it possible to offer citizens the opportunity to call when there is a need or an urgency and when they have the courage to ask for help and this could happen outside the usual working hours and outside the active hours of most services.

Khalil in 2019, conducted a study about “The psychological wellbeing of the Lebanese society lies between incremental suicide rates and financial stress” Suicide rates have been suspected to increase in Lebanon during the last couple of years. While these rates might be increasing due to an increase in the probability of declaring suicide, it seems important to study

why suicide, as a phenomenon, might be possibly increasing in the Lebanese society. One of the most important reasons behind this rise in suicide rates could be related to the economical crisis that has been striking the country for more than two years. “Distress and burnout in young medical researchers before and during the Greek austerity measures: forerunner of a greater crisis”? was the title of a study conducted in 2018, by Sifaki-Pistolla et al. Aim of this study was to assess distress and burnout among young medical researchers (YMR) in Greece before and during the financial crisis. In total 2050 YMR affiliated in all the nursing and medical departments of Greece were enrolled (1025 in Period A: 2008 and 1025 in Period B: 2017). Distress and burnout were measured via DASS-21 and Maslach Burnout Inventory (MBI) questionnaires. Before the crisis, prevalence of distress and burnout among young medical researchers was 24 and 20%, respectively. During the financial crisis distress prevalence increased significantly (56%), while there has also been a tremendous increase in burnout occurrence (60%). Specific sociodemographic characteristics presented significantly increased rate of change (females, singles and divorced/widowers, living with family members, volunteers, smokers and heavy alcohol consumers). Distress and burnout scales were positively correlated (Spearman’s  $r=0.81$ ;  $p=0.01$ ). Depression scores shifted from normal to moderate (rate of change = 13.1%), anxiety levels increased from normal to severe (rate of change = 14.3%) and tension/stress scores elevated from normal to severe (rate of change = 20.2%). It is evident that the current financial crisis and working conditions have a strong impact on health status of young medical researchers in Greece. The observed increased trends and the identified predictors could guide targeted and comprehensive interventions towards tackling distress among the medical researchers not only in Greece but also in other countries suffering from financial crisis. In 2018, Stathopoulou et al, studied the “Self-reported depression among migrant and native populations in Greece in times of crisis”. Separate multiple linear regression models are fitted across three examined groups (Greeks, Albanians and migrants from other countries) as well as for Greek males and females. The findings indicate the mixture of the determinants of self-reported depression by both migrant

status and gender. Women report higher rates of self-reported depression than men, as do natives compared to migrants, while getting older is associated with higher levels of depression in both genders and all three citizenship groups. Further, higher socioeconomic position is associated with lower levels of depression, especially in the case of Greek males, while financial strain appears to be a significant determinant of self-reported depression for both native and migrant populations. This analysis does not confirm previous evidence that migrants are at an increased risk for depression. Age, gender, perceived discrimination and subjective general health appear to be more decisive determinants of self-reported depression than migrant background. Low socioeconomic status seems to be a risk factor for depression only in the case of Greeks. “Suicide rates in Crete, Greece during the economic crisis: the effect of age, gender, unemployment and mental health service provision” was a research study in 2018 by Basta et al. The aim of this research was to investigate the suicide mortality rates in Crete between 1999 and 2013 and their association with the economic crisis. Our analysis showed that Crete, has the highest suicide mortality rate in Greece, however no significant increase was observed between 1999 and 2013, there were opposing trends between men and women, with women showing a decrease whereas men showed an increase in that period, there was a significant increase of suicides in middle-aged men (40–64 yrs) and elderly, although the highest unemployment rates were observed in young men and women, and finally, there was a regional shift of suicides with a significant decrease in Western Crete and a significant increase in Eastern Crete. Although, Crete has the highest suicide mortality rates in Greece, we did not observe an overall increase during the last 15 years, including the period of economic crisis. Alexopoulos et al., in 2019 investigated the “Suicide Mortality Patterns in Greek Work Force before and during the Economic Crisis”. The aim of the current study was to update the first Greek study on suicide mortality among broad occupational groups during 2000–2009, with the last available data covering the first period of economic crisis and recession in Greece. Males and females in the occupational group of clerks exhibited high and increased CMRs during the crisis period (2010–2013). Although high ratios for males in elementary,

agricultural and fishery and armed forces occupational groups were monitored during the whole period, a decrease was evident during the crisis period. Increased trends in CMRs during the crisis were monitored for both males and females in the broad occupational group of members including managers, executives and directors. In addition, females especially in the 50–59 age group showed increased ratios and trends in several occupational groups during the crisis, especially in technologists and associate professionals, plant and machine operators and assemblers, professionals, and craft and related trade workers. Austerity-related stress should alert key stakeholders and provide mental health and suicide prevention interventions for employed occupations. Marino (2018), conducted a study with the title: “Social and Media Repercussion of Anonymous Suicides in Spain during the financial crisis”. Suicide accounts for more than 3000 casualties in Spain every year, turning into one of the most prevalent causes of death. These figures are similar to other Western countries, meaning that suicides are common in these societies, although one might not be aware of their occurrence. Media attention is voluntarily outside of this daily phenomenon, as a way to avoid replication and proliferation of suicidal behaviours, even there is not clear evidence about this causal linkage between coverage and imitation. There is not a solid line of research about the causes lying behind suicides, so the economic and social factors are present, even their influence is not well determined yet. The unexpected impact of the financial crisis in Spain led to a growing number of cases with a direct relation between life conditions and the fatal decision. This article explores the coverage (and the lack of it) in the Spanish media of several cases of “economic” suicide, most of them linked to eviction processes and critical financial situations. We aim to shed some light on a controversial issue regarding media effects and public policies. Finally, Mattei et al. in 2019 studied the “Impact of the economic crises on suicide in Italy: the moderating role of active labor market programs”. The purpose of the study was to analyze the association between unemployment and suicide in Italy during the years 1990–2014, with a peculiar focus on the great recession (GR) and the role played by social protection as buffering mechanism against the negative effect on health outcomes. Analyses were carried out

for both males and females, stratified by age and region. The negative time-trend displayed by suicide rate in Italy until 2007 was slowed down by changes in unemployment at the beginning of the GR, when this trend reversed and the rate of suicide started increasing. Male workers aged 25–64 and women aged 55–64 years were affected by both “normal” unemployment rate fluctuations as well as severe economic crises. Women aged 35–44 were only influenced by the latter. Men benefit from ALMPs mainly in Central Italy, while women did not benefit significantly from ALMPs. In Italy, economic downturns were associated with increased suicides mainly among men, while severe economic crises were associated with increased suicides among both men and women. ALMPs showed to be effective in moderating the association between unemployment and suicide among men aged 45–54 only in Central Italy. The overall small effectiveness of such programs may be due to lack of sufficient funding.

## **Discussion**

Over the last 20 years most studies have shown that unemployment, job insecurity and loss of income have a significant impact on health. Causes of this phenomenon include poverty, stress, health-related behaviors such as alcohol, smoking and drug abuse but also specific working conditions (unsatisfactory work, degraded status). Job loss ranks 8th among the 42 most stressful events. With regard to mental health, all studies comparing the unemployed with workers of both sexes found reduced levels of well-being, higher incidence of mental disorders, depression, and consequent violent behaviors (Toundas, 2004). These effects are justified, according to the theory of Jahonda (1982), since the loss of work results in financial distress and other “latent consequences” such as the loss of time of day, exchange of experiences and contact, goals and goals, definitions. elements of individual identity, self-esteem and respect for others (Jahonda, 1982). Increased suicidal behaviour is also added on the above. Mental disorders, and especially emotional disorders, are considered to be of prime importance to public health as they are among the first causes that cause a significant decline in functionality with subsequent disability. According to Family Stress Model, by James (2009), various economic stressors, such as debt and unemployment, lead to psychological

distress in the form of depressed mood or irritability to parents, which in turn increases family conflict and has a negative impact on the upbringing and adjustment of children. During a recession, single parent families, low-income debt-earners, and low-skilled people who are disadvantaged when looking for work in a competitive job market are expected to suffer the most and many times they try to kill themselves easier than the general population. Thus, according to the model, these effects negatively affect family members and are predisposed to self-destructive behaviors in both parents and children who grow up in an environment of tension. Parents become more irritable and explosive after losing their income, resulting in family tension, as they are more punitive in trying to discipline their children. Moreover, health inequalities have been found to be linked to social indicators, such as social class, unemployment, which demonstrates the relationship between citizens' economic status and their health. Media also play an important role in the presentation and reproduction of suicides, especially under certain conditions and for certain vulnerable populations, such as people with depression and young people. It should be avoided in a way that presents the idea that suicide can be the solution to pressures, dead ends and problems. Media should pay special attention to the titles, photos, videos, and especially the language they use, so that the auteur does not become beautiful or appear as a person with particular sensitivities and no details are given on how the suicide took place. In addition, the publication of an act of suicide should be an opportunity to inform and raise public awareness of the subject and sources of assistance and not to increase the risk of imitation and suicide.

## **Conclusions**

The main effects of the financial downturn are unemployment, loss of income and debt. There is research supporting the link between the financial crisis and the rise in suicides, too. Despite the negative effects of the financial crisis, there appear to be some interventions that are believed to improve the negative effects of the economic downturn on the population, most of which require government-level action to prevent suicide. These interventions have been adopted by the World Health Organization (WHO, 2009) with recommendations aimed at alleviating the recent financial crisis. Policy makers have been called upon to take documented effectiveness measures to promote public health in the context of the economic downturn (Argyriadi and Argyriadis (2019); Stuckler, Basu, McKee &, 2010). These results indicate the need for adequate political and social assistance to improve the impact of the economic downturn on the working population. In addition, consideration of future austerity measures should give greater weight to the consequences they may have on the mental health of the population. It is evident that in countries most affected by the economic crisis, such as Greece and Spain, where severe austerity measures have been applied, suicides have increased dramatically. With this in mind, health policies should be put in place to prevent suicides and help those affected. Research conducted prior to the current crisis showed differences in suicide rates between regions in Greece and the provision of mental health services. Future research could examine the long-term risk of suicide and suicide attempt, both during and after the economic downturn and the factors associated with risk reduction.

**Table 2. Results**

Authors/ Date/Country	Aim	Type of study	Results
Economou, M.; Peppou, L.; Souliotis, K.; Konstantakopoulos, G.; Papaslanis, T.; Kontoangelos, K.; Nikolaidi, S.; Stefanis, N. 2019, Greece	To study the association of economic hardship with depression and suicidality in times of recession in Greece	Research	Income was found to bear a strong association with suicidality only among men; whereas financial difficulties were unrelated in both genders. Subjective and objective indices of economic hardship exert a differential impact on mental health outcomes amid recession.
Silva, M., Resurrección, D. M., Antunes, A., Frasquilho, D., & Cardoso, G. 2018, Spain	Impact of economic crises on mental health care: a systematic review	Systematic Review	Seventeen studies from different countries met the inclusion criteria. The results from the included articles suggest that periods of economic crisis might be linked to an increase of general help sought for mental health problems, with conflicting results regarding the changes in the use of specialised psychiatric care. The evidence on the use of mental health care specifically due to suicide behaviour is mixed. The results also suggest that economic crises might be associated with a higher use of prescription drugs and an increase in hospital admissions for mental disorders.
Stylianidis, S., & Souliotis, K. 2019, Greece	The impact of the long-lasting socioeconomic crisis in Greece	Review	Converging evidence corroborates a deterioration of self-rated health, an alarming rise in suicide rates and a gradual increase in the prevalence of major depression. Concomitantly, the healthcare system is on the verge of collapse and the mental healthcare system is incapable of addressing the emerging needs.
Economou, M., Souliotis, K., Malliori, M., Peppou, L. E., Kontoangelos, K., Lazaratou, H., ... & Papageorgiou, C. 2019, Greece	Problem Gambling in Greece: Prevalence and Risk Factors During the Financial Crisis	Research	Findings indicated that 2.4% of respondents met criteria for problem gambling. Male gender, minority status, living with family of origin, low educational level and low to zero income were found to constitute the risk factors of the disorder. Moreover, having started gambling during the recession increased the odds of suffering from problem gambling; however this finding was gender-specific. Thus, people end up in problem gambling through various pathways, with these trajectories being different for men and women.
Collins, A., Cox, A., Kizys, R., Haynes, F., Machin, S., & Sampson, B. 2019,	Suicide, sentiment and crisis	Review	Results show that consumer sentiment is found to offer a significantly greater explanatory role in exploring variations in the suicide rate compared to traditional economic indicators. Moreover, the effect of consumer sentiment is greater for females than for males, with some nuances in explaining this result.
Turchi, G. P., Iudici, A., & Faccio, E. 2019,	From Suicide Due to an Economic-Financial Crisis to the Management of Entrepreneurial Health: Elements of a Biographical Change Management	Research	Although suicide is considered in intentional terms, in many situations the choice of the act can take place in hurried and rushed moments and, tendentially, in solitude. For these reasons, any interventions and services must know how to be flexible and organize themselves to intercept such occurrences. Consequently, a 24 h availability can make it possible to intercept precisely those moments in which the act may occur almost undisturbed, for instance at night, when the person is alone and without the possibility of talking to someone.

	Service and Clinical Implications		
Khalil, R. B. 2019, Lebanon	The psychological wellbeing of the Lebanese society lies between incremental suicide rates and financial stress	Review	Suicide rates have been suspected to increase in Lebanon during the last couple of years. While these rates might be increasing due to an increase in the probability of declaring suicide, it seems important to study why suicide, as a phenomenon, might be possibly increasing in the Lebanese society. One of the most important reasons behind this rise in suicide rates could be related to the economical crisis that has been striking the country for more than two years.
Sifaki-Pistolla, D., Chatzea, V. E., Melidoniotis, E., & Mechili, E. A. 2018, Greece	Aim of this study was to assess distress and burnout among young medical researchers (YMR) in Greece before and during the financial crisis.	Research	Before the crisis, prevalence of distress and burnout among young medical researchers was 24 and 20%, respectively. During the financial crisis distress prevalence increased significantly (56%), while there has also been a tremendous increase in burnout occurrence (60%). Specific sociodemographic characteristics presented significantly increased rate of change (females, singles and divorced/widowers, living with family members, volunteers, smokers and heavy alcohol consumers). Distress and burnout scales were positively correlated (Spearman's $r = 0.81$ ; $p = 0.01$ ). Depression scores shifted from normal to moderate (rate of change = 13.1%), anxiety levels increased from normal to severe (rate of change = 14.3%) and tension/stress scores elevated from normal to severe (rate of change = 20.2%).
Stathopoulou, T., Avrami, L., Mouriki, A., Cavounidis, J., & Kostaki, A. 2018, Greece	Self-reported depression among migrant and native populations in Greece in times of crisis	Research	Our findings indicate the mixture of the determinants of self-reported depression by both migrant status and gender. Women report higher rates of self-reported depression than men, as do natives compared to migrants, while getting older is associated with higher levels of depression in both genders and all three citizenship groups. Further, higher socioeconomic position is associated with lower levels of depression, especially in the case of Greek males, while financial strain appears to be a significant determinant of self-reported depression for both native and migrant populations.
Basta, M., Vgontzas, A., Kastanaki, A., Michalodimitrakis, M., Kanaki, K., Koutra, K., ... & Simos, P. 2018, Greece	To investigate the suicide mortality rates in Crete between 1999 and 2013 and their association with the economic crisis.	Research	Our analysis showed that (1) Crete, has the highest suicide mortality rate in Greece, however no significant increase was observed between 1999 and 2013, (2) there were opposing trends between men and women, with women showing a decrease whereas men showed an increase in that period, (3) there was a significant increase of suicides in middle-aged men (40–64 yrs) and elderly, although the highest unemployment rates were observed in young men and women, and (4) finally, there was a regional shift of suicides with a significant decrease in Western Crete and a significant increase in Eastern Crete.
Alexopoulos, E. C., Kavalidou, K., & Messolora, F. 2019, Greece	The aim of the current study was to update the first Greek study on suicide mortality among broad occupational groups during 2000–2009,	Research	Males and females in the occupational group of clerks exhibited high and increased CMRs during the crisis period (2010–2013). Although high ratios for males in elementary, agricultural and fishery and armed forces occupational groups were monitored during the whole period, a decrease was evident during the crisis period. Increased trends in CMRs during the crisis were monitored for both males and females in the broad occupational group of members including managers,

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	with the last available data covering the first period of economic crisis and recession in Greece.		executives and directors. In addition, females especially in the 50–59 age group showed increased ratios and trends in several occupational groups during the crisis, especially in technologists and associate professionals, plant and machine operators and assemblers, professionals, and craft and related trade workers.
Mariño, M. V. 2018, Spain	the coverage (and the lack of it) in the Spanish media of several cases of “economic” suicide, most of them linked to eviction processes and critical financial situations.	Review	There is not a solid line of research about the causes lying behind suicides, so the economic and social factors are present, even their influence is not well determined yet. The unexpected impact of the financial crisis in Spain led to a growing number of cases with a direct relation between life conditions and the fatal decision.
Mattei, G., Pistoresi, B., & De Vogli, R. 2019, Italy	To analyze the association between unemployment and suicide in Italy during the years 1990–2014, with a peculiar focus on the great recession (GR) and the role played by social protection as buffering mechanism against the negative effect on health outcomes.	Research	The negative time-trend displayed by suicide rate in Italy until 2007 was slowed down by changes in unemployment at the beginning of the GR, when this trend reversed and the rate of suicide started increasing. Male workers aged 25–64 and women aged 55–64 years were affected by both “normal” unemployment rate fluctuations as well as severe economic crises. Women aged 35–44 were only influenced by the latter. Men benefit from ALMPs mainly in Central Italy, while women did not benefit significantly from ALMPs.

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