

# Economic crisis & mental health. What do we know about the current situation in Greece?

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## Abstract

*The goal of this paper is the investigation of the impact of the financial recession on mental health. To this end, a bibliographical review was conducted on this particular phenomenon, its repercussions on health, mortality, and specifically on mental health. Special focus was laid on research carried out in Greece wherein the consequences of the present economic crisis on Greek citizenry are investigated. Finally, we have presented prevention and intervention measures which, according to research, function prophylactically for mental health.*

*As the conclusions of research on worldwide scale indicate, a correlation between the parameters under scrutiny can be inferred. More specifically, unemployment and average income are the two components of the financial crisis that appear to be linked the closest with mental health. However, these two variables work in conjunction with each given social norm; it is their interrelation thus that affects a population's well-being and mental health. It is through social comparisons that social reality is perceived, something that has an impact on an individual's self-esteem. Therefore, it can be argued that unemployment has less grave psychological consequences on an individual as long as its rate is high enough to tend to become the social norm. As far as Greek studies are concerned, they point to a significant correlation between economic and mental health rates. Nevertheless, while most research findings indicate that the correlation of those rates is negative, it must be noted that there is a variety of important factors that can affect this.*

*In conclusion, taking into consideration the limitations and shortcomings of research in this particular domain, emerges the necessity of more longitudinal studies spotlighting the short and long-term consequences of the economic recess on mental health.*

**Key words:** economic crises, mental health, Greece, unemployment, suicide

## Introduction

In our days, economic recessions have become a worldwide problem, necessitating thus the investigation of

their possible consequences on the domain of health.

In low-income countries, the consequences of the crisis are felt through the reduction in consumption demand, the severed access to funds, the decrease in direct foreign investments and the limited public investments planning. As a consequence, unemployment increases and incomes shrink. Public services become the only source of healthcare, as the demand for private health services decreases, while simultaneously their government funding is reduced. When the national currency is depreciated, the cost of imported goods increases. Medication becomes more expensive as well, resulting either to problems regarding the availability of basic medicaments or to reduced access as their high cost becomes prohibitive.<sup>1</sup>

The ramifications extend beyond the level of the individual, the family or that of a given, enclosed society. Under these circumstances, infectious diseases like HIV and the highly resistant virus of tuberculosis could pose a threat for public health with consequences that exceed national boundaries. Political leaders around the world are expected to take radical decisions and drastic measures for the prevention of the consequences of the economic crises.

## Socioeconomic Factors and Mental Health

Gilman et al.<sup>2</sup> concluded that people of lower socioeconomic level during childhood are at greater risk of developing major depression (1,69 with 2,07 times) than others of higher socioeconomic level, irrespectively of their course in life even after adulthood. Research by Hudson<sup>3</sup> reveals a strong negative correlation between socioeconomic conditions and mental health. This relationship emphasizes the role of social factors.

## Economic crisis in Greece

Economic crisis in Greece has caused major concerns in the eurozone and the international economic community.<sup>4</sup> Analyses show that the main causes of the Greek predicament lie in the serious structural weaknesses in public administration, economic activity and societal configuration resulting to bureaucracy, corruption, and low cost-effectiveness in services.<sup>5</sup> Although the total expenses for health were increased from the 5,3% of the Gross Domestic Product in 1991 to 9,7% in 2008, one percentage point higher than the average of 8,9% of the countries of OECD6, the efficacy of the Greek health system was diminished.<sup>5,7</sup>

As it is frequently mentioned, Greece faces the

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greatest economic crisis of its modern history.<sup>6</sup> According to many politicians, journalists, political and economic analysts, one of the main causes for Greece's oversized public debt and of other pertinent shortfalls is the inefficient and unproductive public administration. The structure and organization of most Greek public institutions are bureaucratic and characterized by the lack of suitable systems for validation, evaluation, control and regulation. Politics adhere mainly to political gains, the pressure of public opinion, professional and economic vested interests and less to a rational system of predetermined priorities and strategical decision making. The Greek primary care is highly fragmented due to the absence of a system of coordination and control of the various different public and private health professionals who are involved in it, and the quality of healthcare services is expected to decline further in the face of the economic crisis. The considerable stability of Greek health rates is mainly due to the good climate, the relatively high life quality and the rather healthy diet.<sup>6,8</sup>

## Method

The review of the literature to be reviewed regarding the consequences of the economic crisis in health and public health was drawn from a variety of electronic data bases: Direct, PsycARTICLES, MEDLINE and reference lists of articles published until July 2012. The outcomes assessed were economic crisis, Greece, mental health. Research papers that were elected involved meta-analyses, research in countries that underwent periods of economic recession and austerity as well as studies that took place in Greece.

## Findings

### A. The international economic crisis

#### 1. Economic crisis and children's health

The current bibliography shows that the relation between childhood mortality and national economic conditions varies significantly from country to country. Recent evidence in USA reports that infant mortality is reduced during recessions due to changes in maternal behavior patterns. Contrasting with that, the economic collapse in many countries of the former USSR during the 90s did not cause clear changes in children's health.<sup>9</sup>

The phenomenon of child abandonment was observed during the recession period in Thailand<sup>10</sup>. The Indonesian crisis of 1998 led to an increase in child mortality<sup>9</sup>, something that was not reported in Argentina, when during the late 90s the country experienced a large economic crisis.<sup>9</sup>

The case of Peru is worth mentioning because the crisis was remarkably steep; the GPD per capita was decreased by 30% while salaries in the country's capital were decreased by 80%. It is proven that there was an increase in child mortality of the class of 2,5 percentage points for children born during the crisis period, which means that about 17.000 more children were deceased. It can be presumed that

the concurrent collapse of public and private health expenses played a crucial part in this development.<sup>9</sup>

There are many possible explanations for the aforementioned differences between countries in regard to the consequences of the economic crisis in child mortality. Firstly, governmental statistical data differ in credibility and accuracy, with poorer countries presenting important problems in these respects. Secondly, it is the fact that the consequences on health are conditioned both by the extent of a crisis and the degree in which healthcare expenses remained stable or not that also accounts for this divergence in findings between different countries.<sup>9</sup>

#### 2. Relation between unemployment and health

The complications in health effected by unemployment has been the subject of many epidemiological studies. In particular, British studies<sup>11</sup> during the 70s and the 80s have shown that the percentage of mortality for the unemployed was 25% higher than that of the employed counterpart of the equivalent socioeconomic level. Additionally, higher morbidity and mortality rates have been found to appear after long term unemployment even when other factors are examined, such as age, race, marital status, income, profession and limited access to healthcare. Unemployment is also strongly linked with the adoption of unhealthy habits, like smoking, as well as with psychological and psychosomatic problems, and suicide.<sup>11</sup>

In a study conducted by the University of Helsinki, Finland,<sup>12</sup> mortality rates for the unemployed, who had in the past been unemployed again, were 2,5 times higher than for those who had never experienced unemployment before. According to a long-term research by Voss et al.<sup>12</sup> in a sample of 20.632 twins, it was found that unemployment lead to an important increase in suicides, injuries and accidents, with the higher mortality rates being among people of a lower socioeconomic level.

The relationship between unemployment and psychological health appears to be affected by factors such as gender, professional status, country of residence and duration of unemployment. In countries which are characterized by uneven income distribution or in countries with insufficient health system for their citizens, unemployment has greater negative consequences in mental health. A meta-analysis by Paul & Moser<sup>13</sup> shows that the negative consequence of unemployment in psychological health amounts to  $d=0,51$ , which means that the health level of unemployed is one half of one standard deviation lower than that of the employed population. Finding a work placement after a long period of unemployment is related to improvements in psychological health. These findings support the hypothesis that unemployment is not just correlated with psychological dysphoria, but it is in effect an adequate condition for it.<sup>13</sup>

#### 3. Relation between economic crisis and health

The effects of the economic crisis on general health are not clear and seem to vary, as it is a multifactorial

phenomenon and for this reason the interpretation of research results in that matter should be made with extra caution.<sup>11</sup>

Certain researchers refer to positive effects giving emphasis on the reduction of overconsumption. According to research<sup>12</sup> in USA and Europe, it was noticed that in periods of economic development there was an increase of mortality and a reduction in periods of recession. Not only that, but recession appears to be related with reduction of alcohol consumption, hospital admissions and fatal car accidents.

On the other hand, research in Europe supports the positive relation between economic crisis and life expectancy in men. Low educational level, low income, minimal specialized occupation and social exclusion appeared to be connected with negative consequences in physical, psychological and emotional health and also with increased mortality risk.<sup>11</sup>

In a research in South Korea, it was found that the short-term effects of economic crisis in mortality rate were relatively small. It seems that any short-term results of economic recession were overlaid from the dynamics of reduction of deaths due to stroke, stomach cancer and liver disease.<sup>14</sup>

Research has shown that the International Monetary Fund (IMF) forces governments of the countries which accept its aid in cuts of public social expenditures and in charging the patients for the health care they receive.<sup>11,15</sup> A recent article emphasizes that there is a gap between theoretical and actual politics which is applied by the IMF in regards to the associated consequences this brings to public health. Macro-economical politics are regarded as the cornerstone for health in an international level and they consist a strong factor which exceeds national boundaries and control. A basic question is how IMF can better incorporate health welfare in a macro-economic level, avoiding this way the negative consequences in public health, which is the result of macro-economic politics focused only in financial stability.<sup>16</sup> In regards to the results of borrowing from IMF in health, certain researches have reported neutral results, some negative, but none has reported any positive results.<sup>11</sup>

During the economic crisis of 1995-6 in Mexico, the mortality rate was found to be higher by 5-7% in relation to the previous years. This translates as a 0,4% rise in the mortality in the senior population and 0,06% in infants.<sup>17</sup> A rise of morbidity was also noticed during the economic recess (1997-1998) in Indonesia, both in agricultural and urban areas, with a percentage of 14,4% and 21,4% respectively.<sup>18</sup>

#### 4. Relation between economic crisis and mental health

Mental health problems, especially affective disorders are considered of great importance for public health since they are considered amongst the leading causes resulting in significantly impaired functionality and according to WHO they are expected by 2020 to be second in frequency of appearance, after ischemic heart disease.<sup>11</sup>

The matter of consequences of the economic crisis in psychological health causes concern in the scientific community and they emphasize the need of provision of a suitable intervention from health systems. In Lancet magazine it is mentioned that depressive disorders and the number of

suicides is to be raised significantly.<sup>19</sup> According to Giotako's article,<sup>11</sup> it is expected in UK a threefold increase of depressive incidences, doubling in alcohol consumption and double or threefold increase in depressive episodes, while recent reports have already shown an increase in suicides in Japan. In Chile, a strong relation was found between sudden income cut and the appearance of psychological problems, with the income cut taking place 6 months before the onset of symptomatology.<sup>11</sup>

The Selenko & Batinic<sup>20</sup> research which was conducted in 2009 in Austria in a sample of 106 subjects who were in the verge of bankruptcy, examines the relation between perceived economic difficulty and psychological health, and also the individual variables that affect this relation. Regarding the individual factors there is a dichotomy between objective and subjective dimensions of financial stressors. While the term objective dimension concerns the objective inability to cover current economic needs, the subjective dimension concerns the perceived inability concerning the economic capability. The relation between objective and subjective economical stress, as well as the relation between subjective economical stress and personal wellbeing, seem to be affected by a number of individual factors. Such factors are the occupational status, the latent benefits in which people have access and their self-efficacy beliefs.

The term "latent benefits" becomes clearer through the theory of latent deprivation by Jahoda (1982)<sup>20</sup>. According to this model, work provides access in certain benefits, besides income rising, which are extremely important for a person's well being. These benefits include the broadening of social relationships and the person's social net, the access in group achievements, the social status as well as the person's activation and time management.

According to the research findings<sup>20</sup> the perceived economic difficulty appears to have significant negative effect in psychological health, while a correlation between actual height of debt with mental health or with perceived economical difficulty was not pinpointed. All three variables, occupation, access in latent benefits and self-efficacy were correlated to mental health. The economic dysphoria had less effect in mental health if a person had strong self-efficacy beliefs. Increased social contacts were related to better mental health only if the perceived economical difficulty was low, while the occupational status had less effect in the relation between perceived economic difficulty and mental health. Therefore, according to the findings, it seems that even under intense economical distress (e.g. bankruptcy), the subjective economical stress can vary, and as a result so can a person's mental health.

The economical changes and the agricultural crisis in 1980 in USA appear to be related with the acute appearance of psychological symptoms in the rural population. The main factors found to affect this result, were the individual's perception for personal economical prospect, the social structure and financial and cultural community context.<sup>21</sup>

An exceptionally interesting research from Australia compared self-reports regarding the health condition and the psychological functioning of adults with a mean age of 67

years, before and during the international economic crisis.<sup>22</sup> A significant difference in depression and stress symptoms appeared in both measurements in people who reported a larger impairment of their psychological functioning due to the economic recess. Also, the participants who were interviewed during the acute recess period were less likely to report psychological symptoms in comparison to those who were interviewed later. The differences in depression symptoms for the two groups appear to be explained partly by the concept of economic social norm, a concept which generally affects the well being and mental health of the population. A social norm is considered to be the body of rules and values that constitute the social and cultural framework. Comparing one's personal condition with the current norm seems to be an effective way of coping with stress and threatening information. Social comparisons are an important mechanism for understanding how people interpret their life conditions and social reality, and also for adjusting to changes. A positive comparison has a reinforcing effect in self esteem, which is of high importance in uncertain and ambiguous situations. So, to be unemployed has less negative consequences when the level of unemployment is so high that it is considered a social norm. As far as the Australian population is concerned, an interesting hypothesis is that the milder depression symptoms which were reported during the period of the acute economic crisis in comparison to the more severe symptoms of the later economic recovery, were the result of the subjective belief that the individual represents the current social norm.<sup>22</sup>

##### 5. Relation between economic crisis and suicide

A thorough report by Chang et al.<sup>23</sup> studied the consequences of the economic crisis (1997-1998) in Asian countries, like Japan, Hong Kong, South Korea, Taiwan, Singapore and Thailand. Data for suicides and the population for the period 1985-2006 were extracted from the World Health Organization mortality database. The results have shown that suicides were decreased by the end of the 80's and the beginnings of 90's, but that later during the economic crisis they were increased significantly in all the aforementioned countries. It is worth mentioning that there was not a significant increase in suicides in Taiwan and Singapore, were the economic crisis affected the per capita gross domestic product less, as well as the unemployment levels. It is therefore suggested that the Asian economic crisis, mainly through the increase of unemployment, caused an increase in suicides in most countries of S.E. Asia. Stress which is caused by unemployment and financial problems may lead to depression, which raises the danger of suicide. Nonetheless, unemployment can contribute to suicidality independently of the existence of a psychiatric disorder. Indeed, a recent research which examined the factors which were related to suicidal thoughts, found that current unemployment is connected to an almost fourfold increase in suicides.<sup>23</sup>

A research from Thailand<sup>10</sup> examines and analyses the short-term effects of the crisis in health, using existing data and some special researches and interviews from the period 1998-1999. It was found that unemployment and

financial difficulty have a great negative effect in psychological health, stress levels and suicidal ideation. In particular, during the crisis, the Psychological Health Service conducted three month telephonic surveys around the country in order to assess psychological stress, suicidal ideation and methods of coping using standardized questionnaires. A higher percentage of clinical stress, suicidal ideation and feelings of hopelessness in regards to the future were remarked in the unemployed in comparison to the employed population.

Another research by Taylor et al.<sup>24</sup> examines the relations between levels of suicidality and prevalence of mental disorders of Australian inhabitants in groups of variable socioeconomic levels. According to the results, for Australian men socioeconomic level rather than mental disorders is more closely related to suicide, and also the danger for suicide amongst individuals of low socioeconomic level remained stable in all ages. This shows that low socioeconomic level is related with suicide danger beyond and over the existence of psychiatric disorders, a finding which is in accordance with the existence of a causal pertinence. Mental disorders and previous suicidal behavior may possibly play a buffering part for socioeconomic level, but the current research supports the additional existence of an independent relation.

Stuckler et al.<sup>25</sup> studied in 26 European countries for the period 1970-2006, how economic changes have affected mortality rates in Europe over the past three decades as well as the way that governments could reduce their negative consequences. They found that for every 1% increase in unemployment was 0.8% increase in suicides at ages under 65 years and 0.8% increase in homicides. Also, up more than 3% unemployment respectively had even greater impact on suicides (increase > 4%), those aged under 65 years and deaths from alcohol use. Finally, they found that rising unemployment rates had no effect on the rate of suicide when spending on active programs to support the labor market, aimed at job retention and reintegration of redundant, was over \$ 190 per person per year. Finally, another important factor related to mental health is the use of substances, found a positive correlation between economic crisis and drug use.<sup>26</sup>

##### B. Economic crisis in Greece

Exploring the impact of the current economic crisis in mental health in Greece was the target of the study of Giotakos et al.<sup>27</sup> Specifically, he studied the existence of possible correlation between unemployment and average earnings of the last twenty years with the following indicators of mental health: admissions in psychiatric clinics, visits to emergency and outpatient psychiatric clinics, suicide, homicide, mortality and divorce during the last decade. The data collection took place from September to October 2010 from the database of the Greek Statistical Office and the databases and from Aiginiteio University Hospital, Psychiatric Hospital of Attica, Geniko Kratiko of Athens and Evangelismos Hospital.

Specifically, mental health indicators that seemed to have a significant correlation with economic indicators are visits to outpatient clinics and emergency departments of psychiatric clinics, suicides, homicides and the number of

divorces. Specifically, a positive correlation was found between outpatient visits and emergency of Aiginio University Hospital and unemployment and average income. Since the multiple regression model showed that both economic indicators related independently of each other with visits to clinics in Aiginio University Hospital, we can assume that these two indicators affect different parts of the population and probably reflect the influence of different causes push people to use these services.

However, a lower mean income was correlated to a higher percentage of individuals who received care in the emergency of all four hospitals in total. This finding and the fact that it is in contrast with findings from the Aiginio Hospital alone, may be due to the different time duration data of the four hospitals, in their geographical position and in their specialized character (e.g. psychiatric clinics instead of psychiatric departments in general hospitals). It was also found that the increase in suicides is related with a lower mean income. Additionally, a higher mean income is related with fewer deaths in individuals of 15-70 years of age.<sup>27</sup>

An important finding of the research is the existence of a positive correlation between unemployment and homicide number, while such a finding was not supported for suicide numbers. According to the researchers, the lack of a finding which correlates suicide and unemployment increase is most possibly due to the still short-term consequences of the crisis, but also in the existence of traditional structures of social welfare.<sup>27</sup>

The University of Ioannina conducted a field research<sup>28</sup> in a representative sample of almost 5000 adults between 18-74 years of age. For the research purposes interviews took place in the participant's homes from July 2009 to January 2010. According to the research, a dramatic raise of symptomatology was found in individuals with lower family income or in individuals who face serious financial difficulties. Individuals who faced plenty or many financial difficulties (independently of their income level) were 3 times more likely to develop serious psychopathology in comparison to individuals who did not face financial difficulties. In particular, individuals with no financial problems showed a rate of serious psychiatric symptomatology in a rate of 3% and depression in a rate of 1%, while the rates for individuals with many financial problems were 22% and 12% respectively. The lower frequency of serious psychopathology appeared for individuals with occupation (either full time or part time). Unemployed individuals had an almost double chance to develop serious psychopathology even when all other factors which affect the correlation (e.g. income) are taken under consideration. Additionally, they were two and a half times more likely to present "death wishes" and ideas of unworthiness for life even when income and financial difficulties were taken into account in the analysis.<sup>28</sup>

According to Bouras & Lykouras<sup>29</sup> there has been an increase in unemployment with the percentage reaching 12,4% in October 2010. Also, there appears to be an increase in the number of individuals who address to the Reception and Solidarity Centers (KYADA) to satisfy basic needs (nourishment, temporary housing, medicines and medical

care). The number of those who address in catering centers provided by the church has been multiplied, mainly because of the number of Greeks who resort to this solution (35%-40% and of 50-70 years of age). Meals that are daily offered have been doubled from 5.000 to 10.000 and this only in the area of Athens alone.

The article of Kentikelenis et al.<sup>19</sup> summarizes data and supports that health condition has deteriorated especially in vulnerable groups. Also, they found an increase in criminality with homicide and theft rates being doubled between the period of 2007 and 2009. A significant increase in infections from the HIV virus has taken place by the end of 2010. The prevalence of heroin use appears to be increased by 20% in 2009 according to estimations by the National Center of Documentation and Information for Drugs. Budget cutbacks in 2009 and 2010 resulted in the loss of one third of street-work programs in the country.<sup>19</sup> Nevertheless, the Greek organization of Doctors of the World estimates that the percentage of Greeks seeking medical care in street clinics has increased from 3-4% before the crisis, to about 30%.<sup>19</sup>

Madianos et al.<sup>30</sup> conducted a telephonic research of two phases in all Greece, with a sample of 2,197 in 2008 and with a sample of 2,192 in 2009, with the purpose of examining the possible correlation between economic crisis and prevalence of Major Depressive Episode. During the telephonic interviews the SCID I module of MDE and the Index of Personal Economic Distress (IPED) were used. The results have verified the existence of a correlation between the two variables and in particular, it showed that individuals who faced serious financial adversities had a greater risk to develop a Major Depressive Episode. In regards to the comparison of data between the two phases, an increase was reported in the prevalence percentage of Major Depression Episode by 2,1 in the year 2009 in comparison to 2008.<sup>30</sup>

In a survey of Economou et al.<sup>31</sup> followed the same methods, observed that 2011 was a 36% increase in references (34) attempted suicide in the last month before the survey compared the reports (24) in 2009. The psychometric tools used were the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) and financial strain was measured by the Index of Personal Economic Distress (IPED).

A research by EPIPSI<sup>32</sup> processed and analyzed the content of phone calls in the Help Telephone Line for Depression from May 2008 to June 2011, with the purpose of examining the possible correlation of the economic crisis and the requests for telephonic psychological support. As the results showed, by the first semester of 2010 there was an increase in the number of calls by individuals who reported directly or indirectly that they were affected by the economic crisis. It is worth mentioning that those individuals were more likely to develop depression than those who did not refer to the crisis. A high percentage of those were also found to present distress and alcohol or drug abuse. No statistically significant differences were reported in regards to drug abuse or suicidality. Lastly, stress was found to burden mainly the employed population, possibly because of the lack of security and the uncertainty they daily experience.<sup>32</sup>

Studying data from WHO for the suicide indicators in

Greece, it was noticed that in 2009, the year of the onset of the deep economic recession, the number of suicides was the same as that of 2000 and lower than that of 2005 and 2006.<sup>33</sup> Also, Skapinakis<sup>34</sup> adds to the above that in previous years, in the absence of the economic crisis, the suicide indexes presented fluctuation of the class of 20%, focusing like Fountoulakis et al.<sup>33</sup> in the major problem of low quality of Greek data.

Also, the effect of economic recess in the psychological health of the health professionals is mentioned. Reduction in expenses on salaries and functional expenses in hospitals because of national budget cuts lead to a drop in the quality of infrastructures and services. This, in an environment of intensifying professional demands has caused a drop of morale and professional burn out to the personnel.<sup>35,7</sup>

### Coping and precaution

The reduction of exclusion, the universal benefits and the protection of citizens from poverty are common elements of national politics concerning health. Elements for the importance of the nature of the political strategy to be followed are presented below through three comparisons, that of Russia-Cuba, countries of E. Asia and 27 European countries.

The deterioration of the soviet bloc had disastrous consequences in Cuba and Russian Federation but it triggered extremely different responses in each country's public health.<sup>36</sup> While the rates of mortality in Russia increased significantly, in Cuba the crisis had but a few consequences. The fundamental social, political and cultural differences and the corresponding particularities of each economic crisis are considered to be the main causes of this fluctuation. Generally, the data reflect different political strategies. Cuban authorities tried to maintain the system in the before crisis levels, as much as possible, finding ways of precaution or redefinition of the surplus work force. Instead, the Russian government took less precaution measures. The collective interpersonal relations, such as the level of social trust and coil amongst the citizens, also served as a precaution factor.<sup>36</sup>

Indonesia, Malaysia and Thailand economies suffered a recess in 1997.<sup>37</sup> The impact of the economic instability in citizens health via the decrease in expenses on food, the decrease of expenses in health and education, and the reduction of public expenses by the state, was studied. Although the increase of deaths, including suicide, and of psychological disorders is noticeable in all three countries, the size and duration of the crisis differs.

According to results, there were ramifications in health, especially in mortality, for the populations of Indonesia and Thailand. In Malaysia, the economic crisis appeared to have but a few consequences in the domain of health. In regards to the politics followed, Thailand and Indonesia accepted the IMF's help. The main line of politics was the reformation of economy, with a special focus in financial discipline and the restructuring of the bank department, demanding the maintenance of high interest rates in order to avoid capital outflow. Additionally, the terms put by IMF lead to a discount of social welfare, in a time when the unemployment and under-occupation increase were dramatic.

On the other hand, Malaysia denied the IMF's intervention and by constraining the capital movement, the monetary headquarter was able to reduce interest rates, to insure business access in lower loans, in an attempt to avoid bankruptcy and to initiate an expansive financial politic. This political strategy allowed the economy to recover from recess much faster. This, in turn, had positive consequences in the economical and social indexes, as well as in the population's health.<sup>37</sup>

The last research used data for comparison from WHO, ILO, World Bank and OECD Health Data for 26 countries of the European Union.<sup>25</sup> The public expenses which were examined concerned the period 1970-2000. It was noticed that for every 1% increase in unemployment there took place an increase in the number of suicides for ages under 65 years old and an increase by 0,79% in homicides. A typical example of this is the UK (1981) where unemployment increased by 3,6% and suicide by 2,7%. Respective dramatic increases in unemployment during economic recess were experienced by Finland (1990-93) with unemployment increasing from 3,2% to 16,6%, and by Sweden (1991-92) where unemployment increased from 2,1% to 5,7%. The consequences of this phenomenon though were different for each country.

In both countries suicides had a stable decrease. Also, no correlation appeared between economic recess and unemployment with the deterioration of public health. According to the research, it was found that when the national investment exceeded 190\$ per head per year, the increase of unemployment had no consequence in the number of suicides. In particular, for every 10\$ increase in investment in national programs for employment, there are 0,038% less consequences in the suicide index than those occurring by the 1% increase of the rate of unemployment. Therefore, this fluctuation is due to the fact that Finland and Sweden committed themselves to social welfare during the crisis by offering replacement and retraining programs to the unemployed. For that reason, national intervention plays a leading role and the differences found in Europe can be attributed to this factor.<sup>25</sup>

Additionally, the compliance to propositions by the Alma-Ata Declaration in regards to primary welfare could have produced better health indexes and lower cost for all medical services. So, an effective and fruitful system for health, closer to the satisfaction of needs and expectations of citizens, includes the detection of locations for general units of primary care facilities, with the personal doctor having a central role.<sup>6</sup> Also, focusing on better planning the provision of psychological health services is considered important as, according to the recent research by Giotakos, there appears to be a negative correlation between accessibility, proximity and number of health services with suicide indexes.<sup>15</sup>

The development of new managerial practices and the rapid modification of organizational policies, work procedures and hierarchical structures is urgently needed.<sup>6</sup>

### Discussion

According to the above, the economic crisis seems to have implications on health, especially mental health mainly

through unemployment and income reduced. However, the nature of this relationship and its interpretation is not always an easy venture to accomplish. While most studies find a negative correlation between economic crisis and mental health should be taken into account, important factors that interfere with this relationship. Especially determinants considered subjective economic stress and the effect of well-being, the latent benefits of work and the sense of self-efficacy. In addition, social factors such as stigmatization, marginalization, erosion of social relations, the current social norm and the existence of social safety nets appears to play an important role.

Given the limitations of Greek studies, as mentioned by the authors themselves, any universal acceptance of the results is uncertain. However, these studies provide valuable information about a social phenomenon that largely employs modern Greek society. These studies come to cover the absence of adequate data before the economic downturn and provide the basis for further longitudinal research. Furthermore, the data generated by investigations carried out after the economic crisis could be compared with surveys that took place during the period, offering a more complete understanding of the effects and protective factors for mental health.

The citizens' need for information from the scientific community regarding the looming changes in Greek society is understood, however, a review in print and electronic Greek media leads to the conclusion that the way the mass media

manage the phenomenon is fragmented and problematic. It is therefore worth wondering in regards to the role of the mass media as an additional intervening negative factor for psychological health.<sup>23</sup> The successful intervention of the Austrian organization for the Prevention of Suicide (ÖVSKK), which applied the instructions by WHO during the 90's in regards to the manner of presentation of suicides by the mass media in an attempt to face the copycat effect, is an example which could be adopted in Greece.<sup>38</sup>

Finally, since the financial crisis and the consequences of this, such as unemployment, are identifiable stressors could be offered an alternative interpretation of symptoms in diagnostic level. Specifically, the development of affective or behavioral symptoms in response of individuals to these factors could be incorporated into the diagnostic category of the DSM-IV-TR<sup>39</sup> «Adjustment Disorders.»

Conclusively, current Greek empirical psychiatric research is not in the position to provide answers to questions posed by the public and may have to wait 1-2 years until the next published epidemiological data based on proper sampling such survey data SHARE (The Survey of Health, Ageing and Retirement in Europe). In the meantime, Greek psychiatry and psychology is expected to elucidate the fact that public health issues cannot be comprehended by the study of case studies or data, as they come into the spotlight by individuals of the non-scientific community.

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