

# Psychosocial sequelae of the economic crisis to the demographic problem of Greece

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## Abstract

After 2009, Greece has entered a long period of economic crisis with adverse effects on various aspects of daily life, including the intensification of the demographic problem. Over the six years of the crisis (2009 – 2014), the crude birth rate substantially decreased between 2009 and 2014; from 10.45 per 1,000 population in 2009 to 8.57 in 2014. The 92,984 livebirths in 2015 is the lowest number recorded in Greece since 1955. During the period 2009 – 2014, the crude mortality rate in Greece increased, from 9.60 per 1,000 population in 2009 to 10.46 in 2014. Moreover, due to the high unemployment rate (it was 27.9% in September 2013 and 23.2% in July 2016), couples are worried and reluctant to get married and give birth to children. The problem is further aggravated by the fact that many young people have immigrated to foreign countries (during 2014, 107,000 have immigrated most of whom were younger than 34 years of age).

Now more than ever, policy makers must recognize and prioritize these issues in order to design and implement policies necessary to protect against the worsening of the demographic problem in Greece.

**Key words:** Demographic problem-financial crisis-reduced fertility rate-Unemployment-depression- suicidal-ity- burn out syndrome

## Introduction

### Economic crisis in Greece

In 2009, the economic crisis affected a large population segment in Greece. In April 2010, a Memorandum of Economic and Financial Policies was implemented, which averted Greece's default, by imposing economic restriction. The Greek financial crisis has attracted a lot of attention. Several articles refer to the negative health effects of the economic crisis in Greece. Positive relationships among unemployment, income loss and mental health deterioration have been found while significant increases have been reported in prevalence rates of major depression, suicidal ideation and suicide attempts (Madianos et al., 2011; Economou et al., 2011a,b,c,d,e, 2012a,b, 2013 a,b; Kentikelenis et al., 2011, 2012; Stuckler et al., 2009, 2011; Theleritis and Economou, 2014; Fountoulakis et al., 2015; Rachiotis et al., 2015).

The recession has led to job losses across all sectors of the economy and to a rise in unemployment. Throughout the years of recession, unemployment rates rocketed from 7.8% in 2008 to 9.6% in 2009, 12.7% in 2010, 17.9% in 2011, 24.5% in 2012, 27.5% in 2013 and 26.5% in 2014, 23.2% in July 2016 (Eurostat, 2015; Hellenic Statistical Authority, July 2016). Debt grew between 2007 and the second trimester 2016 from 105.4% to 179.2% of gross domestic product (GDP; €239.4 billion to €328.3 billion). At the same time, the proportion of the population at risk of poverty or social exclusion rose from 28.1% in 2008 to 35.7% in 2013 and 36% in 2014 (Hellenic Statistical Authority, 2015).

Furthermore, a survey by the Hellenic Confederation of Professionals, Craftsmen and Merchants (GSEVEE, 2014) highlighted substantial income loss for 93.7 % of households, following the economic crisis, resulting in reductions in expenses for basic goods and food. Moreover, one out of 3 households reported delaying payment of their debts, while 42.5 % of households were skeptical about the ability of their income to meet upcoming financial obligations. At the same time, the negative impact of the financial crisis on Greek households has also influenced the child population. Ac-

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cording to data emanating from UNICEF (2014), there has been a substantial increase in the child poverty rate from 23 % in 2008 to 40.5 % in 2012.

### **Reduced fertility rate and economic crisis in Greece**

The number of live births in Greece has decreased dramatically, and since 2009, the country's fertility rate has hit a low range of 1.1 to 1.3, according to the Greek National Center for Social Research. The fertility rate refers to how many children a woman would give birth if she would live all her childbearing years at the current fertility rates for her age group. For developed countries to keep their populations from declining, the fertility rate must be about 2.0 (The Huffigon Post, January 2016).

It is suggested that the the risk of poverty discourages couples from having children (Michas et al., 2013; Vrachnis et al., 2014). According to a survey by medical aid organization Médecins du Monde, four in ten women in Greece decided in 2014 to have fewer children, or no children at all, for economic reasons, including a fear of losing their jobs. As a result, the survey indicates, one-fourth of Greek women born in the '70s will be childless (Kathimerini, November 2015).

So, due to the economic crisis there is tremendous stress imposed in young women. What is the result of living in so stressful conditions?

Let us proceed with a definition of stress (Sterling and Eyer, 1988; McEwen 1998; Charney 2004; Benson and Casey, 2008; Chrousos, 2009; Theleritis 2011).

### **What is stress?**

Stress hormones (cortisol, adrenaline and noradrenaline) prepare the body to fight or flee. Breath quickens, heart beats faster, senses are sharpened (sight and hearing), the individual become more alert, certain blood vessels constrict, which helps direct blood to the muscles and the brain and away from the skin and other organs. Body systems not needed for immediate actions are suppressed. The stomach and intestines cease operations. Sexual arousal lessens. Repair and growth of body tissues slows. Hans Selye (1956) was the first to advance the idea that physical and psychosocial stressors trigger the same physiological response.

He also suggested that short-term stress (good stress) stimulates people in order to overcome obstacles while ongoing and overabundant stress (bad stress or distress) wears down the ability to adopt and cope.

Two Harvard researchers Yerkes and Dodson (1908) noted that as stress or anxiety levels rose, so did performance and efficiency-up to a point. At this turning point, further stress and anxiety led to significant declines in performance and ability.

**Overabundant (bad) stress is linked to health problems:** Hypertension, allergic skin reactions, anxiety, arthritis, constipation, cough, depression, diabetes, dizziness, headaches, heart problems (angina, heart attack, and cardiac arrhythmia), infectious diseases such as cold and herpes, infertility, irritable bowel disease, insomnia, nausea and vomiting of pregnancy, pains (backaches, headaches, abdominal pains, muscle aches etc.), premenstrual syndrome, slow wound healing, ulcers etc.

### **Overabundant (bad) stress warning signs**

#### **Physical symptoms**

Tight neck and shoulders, back pain, sleep difficulties, tiredness or fatigue, racing heartbeat or palpitations, shakiness or tremor, sweating, ringing in ears, dizziness or fainting, choking sensation, difficulty swallowing, stomachache, indigestion, diarrhea or constipation, frequent urgent need to urinate, loss of interest in sex, restlessness.

#### **Behavioral Symptoms**

Grinding of teeth, inability to complete tasks, bossiness, fidgeting, overuse of alcohol, emotional eating or overeating, taking up smoking or smoking more than usual, increased desire to be with or withdraw from others, rumination (frequent talking about stressful situations).

#### **Emotional Symptoms**

Crying, irritability, edginess, anger, feeling powerless to change things, nervousness, feeling anxious, quick temper, lack of meaning in life and pursuits, boredom, loneliness, unhappiness with no clear cause, depression.

#### **Cognitive Symptoms**

Continual worry, poor concentration, trouble remembering things, loss of sense of humor, indecisiveness, lack of creativity, trouble thinking clearly.

### **What could happen if there is overabundant stress at work.**

Burn out syndrome was described for the first time by Freudenberg (1974) while observing the staff of a detoxification clinic in the mid 1960s being affected by this disorder. It was in the 1980s that Maslach proposed evaluation criteria for the syndrome through the design of a standard measurement instrument, the Maslach Burnout Inventory or MBI (Maslach and Jackson 1986). Burnout syndrome involves feelings of emotional exhaustion, depersonalization and diminished personal accomplishment at work. Workers perceive they are no

longer able to participate on an emotional level (emotional exhaustion), they develop negative attitudes and feelings towards persons for whom work is done (depersonalization), they negatively value their own capacity to carry out tasks and feel unhappy or dissatisfied with the results obtained. Its etiology is generally thought to be chronic stress at work or elsewhere (Maslach et al. 2001).

According to Lazarus and Folkman (1984), coping is "cognitive and behavioural efforts to manage specific internal and/or external demands that are appraised as exceeding the resources of the person. A person will be psychologically vulnerable to a determined situation (for example his work) if he/she does not possess sufficient coping resources to handle it adequately, and if at the same time, he/ she places considerable importance on the threat of the consequences of this failure to handle things.

It is worth noting that Peter McDonald, who's a professor at the Crawford School of Public Policy at the Australian National University, claims that the fertility rate is lower in countries with higher female unemployment (Kathimerini November 2015). According to the Greek Statistical Authority, about 1.2 million Greeks were unemployed in July 2015, or some 25 percent of the country's workforce. Unemployment was even higher for women, reaching 29.4 percent.

### **The population of Greece has declined in 2016**

As of 1 January 2016, the population of Greece was estimated to be 10 933 457 people. This is a decrease of -0.40 % (-44 240 people) compared to population of 10 977 697 the year before. In 2015 the natural increase was negative, as the number of deaths exceeded the number of live births by 17 235. Due to external migration, the population declined by 27 005.

During 2016 Greece population is projected to decreased by -44 062 people and reach 10 889 395 in the beginning of 2017. The number of deaths will exceed the number of live births by 17 166, so the natural increase is expected to be negative. If external migration will remain on the previous year level, the population will be declined by 26 896 due to the migration reasons. This would be the sixth consecutive year in a row that the number of deaths will exceed the number of live births: In 2011 live births were 106,777 and deaths 110,729 (deficit of 3952), in 2012 live births were 100,371 and deaths 116,670 (deficit of 16299), in 2013 live births were 94.134 and deaths 111,794 (deficit of 17660), in 2014 live births were 93,280 and deaths 114,086 (deficit of 20806).

According to the latest data from the Hellenic Statistical Authority, there were only 92,984 registered livebir-

ths in 2015. This is the lowest number recorded in Greece since 1955, the first year for which reliable data are available (Ministry of Interior and Administrative Reconstruction 2016). While at the same time there were 121,785 deaths (deficit of 28801).

Furthermore, in 2012, an increase in stillbirths which is related to the Greek economic crisis was reported. It was suggested that the cornerstone of prevention is adequate antenatal care for early detection of fetal growth restriction and other complications. Vrachadis and Korrnarou (2013) were worried that the stillbirth rate will continue to rise because an increasing number of pregnant women were unemployed and without insurance, and thereby excluded from the Greek National Healthcare System's obstetric care.

Furthermore, it is unfortunate, that due to the economic crisis, an increased number of abortions is reported in Greece every year (250.000-300.000/ year) (The Huffigton Post, March 2016; Lima et al., 2016). Finally, since 2009, about half a million Greek people had to migrate to developed countries to find a job, half of them were under 34 years of age.

### **Implications of reduced fertility rate in Greece**

For what concerns the Greek demographic reality, around one-fifth of the Greek population is aged over 65 (up from 11 percent in 1971). At the same time, the number of future workers and taxpayers (those aged under 15) have declined from 25.4 percent to 14.4 percent in the period 1971-2011. Population aging is one of the biggest challenges that lie ahead for Greece, according to the European Commission's 2015 Aging Report (European Commission, 2014). It estimated that the Greek population will shrink by 2.5 million people to reach 8.6 million by 2060. Professor Kotzamanis of the University of Thessaly warns that the population of Greece, last counted in 2011 at just under 11 million, will shrink by 300,000 to 400,000 in the next 10 years, due to deaths and emigration. According to New York-based nonprofit organization HelpAge International, in 2030, one in three Greeks will be aged over 60, and by 2050 it is estimated that the number of over-60s will have risen to 40.8 percent of the population (Kathimerini, October 2015).

A study conducted by Greece's Alpha Bank also argues that low birthrates will contribute to the reduction in the population, and foresees that the 65+ age group will constitute 33 percent of the population in 2060 compared with 20.3 percent in 2013, while the 0-14 age group is seen shrinking to 12.9 percent in 2060 from 14.6 percent in 2013 (Kathimerini, October 2015). The 2015 Aging Report goes on to warn that the number of people aged over 65 compared to those in the economi-

cally active age group of 15 to 64 years will grow gradually from 31 percent in 2013 to 42 percent in 2030 and then to an unmanageable 61 percent in 2060 (European Commission, 2014).

For children born in 2000, by the time they reach 50, they will have to pay much higher taxes and social security contributions to support the older generation, which will put an incredible strain on the system, particularly since the economically active age group of 15-64 is expected to drop to 4.6 million in 2060 compared to 7.3 million in 2013. The aging of the population will also lead to people staying in the job market longer, the study found. In 2013 just 4.9 percent of the Greek work force was aged 65-75 and this will shoot up to 14.3 percent in 2030 and 24.4 percent in 2060, by which time the average age of the work force will be 44 from 39 today. The age of retirement will reach 67.5 percent among men in 2060 from 61 years old in 2013, and among women, it will go up from 61.2 last year to 67.1 in 2060 (Kathimerini, October 2015).

### **Possible solutions to the demographic problem**

We need to find ways to reverse the financial situation and promote policies that enable young people to access the labour market. Tax evasions plans and programs which support housing and employment for young couples and young women in particular could contribute to the reversal of the decline in birthrates. Introducing specific state financial benefits for young couples who are giving birth to a child could also be of great help.

The creation of proper infrastructures such as day care centers and nurseries to encourage women to get in the labor market can give a boost to births. In many families today, both parents work, and a working woman is more likely to become a mother than a stay-at-home wife. Professor McDonald warns that a lack of day care options make it difficult for working women to combine motherhood with a demanding job. Uninsured pregnant women face increasing difficulties to access health services, whether for check-ups during their pregnancy or later on for medical services for their babies, forcing many of them to pay for medical costs on their own (The Huffigon Post, January 2016). McDonald who's a professor at the Crawford School of Public Policy at the Australian National University, also argues that the rise of births can have a positive effect on the economy by helping bring about a GDP increase, and can help relieve the stress an aging population puts on the social security system. In turn, a GDP growth will reinforce birth rates, McDonald says.

The most challenging issue in light of the economic crisis is to maintain social cohesion and social welfare

programmes, for the unemployed and those with lower socio-economic status. Maintaining or developing social safety nets that support the vulnerable population and investing in a health services model, which is primarily oriented to public health and primary health care services, should be a priority (Zavras et al., 2013). School-based food aid program may reduce food insecurity for children and their families residing in low socioeconomic areas of Greece in times of economic hardship (Petralias et al., 2016).

For women who intend to have an abortion, public policy should target the steps in the causal pathway leading a family or individual woman to decide to terminate a pregnancy that are amenable social protection, e.g. employment protection and free childcare (Lima et al., 2016).

Furthermore, social support from friends and family can alleviate excessive work stress while physical exercise can mitigate mood and anxiety disorders (Thelertitis et al., 2010). Moreover, a mediterranean dietary pattern has been associated with lower incidence of depressive episodes. Last but not least cognitive-behavioral treatment (CBT), relaxation techniques and spirituality seem to protect from excessive stress. Consequently, the combination of CBT, relaxation techniques, spirituality, social support as well as the implementation of a healthier lifestyle (physical exercise and Mediterranean dietary pattern) might help considerably in the prevention of excessive work stress.

All these proposals, along with the gradual improvement of the financial climate, might contribute to the increase of livebirths in Greece.

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