

Adolescents' Self-reported Running Away from Home and Suicide Attempts During a Period of Economic Recession in Greece

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Abstract

Background Running away from home and suicide attempts during adolescence are high-risk behaviors for safety and health, and a “way out” from negative life experiences.

Objective To examine the self-reported prevalence of running away and suicide attempts among adolescents in Greece in the midst of a severe economic recession which is exerting pressure on families, and to identify associated psychosocial factors.

Methods Data were drawn from a nationally representative school survey (n = 23,279, 15–19 years old). Students answered in their classrooms an anonymous questionnaire under the supervision of trained researchers.

Results Each behavior was reported by one in nine adolescents (11.3 % for lifetime suicide attempts and 11.6 % for lifetime running away). Among those who reported the one behavior, a quarter also reported the other. Logistic regression analyses indicated that these behaviors share several common psychosocial correlates: family related (quality of parental relationships, parental monitoring), school related (poor performance and dissatisfaction), substance use, and emotional, psychological and behavioral problems. Gender was a significant correlate but in opposite directions for running away (more common among boys) and suicide attempts (more common among girls). Socioeconomic status was not a significant correlate for either behavior, possibly because the impact of the economic crisis on parents had not yet filtered down to their children in 2011 (the survey year).

The first author assumes primary responsibility for the integrity of the data and the accuracy of data analysis. All the authors have contributed to the interpretation and discussion of the results.

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Conclusions Findings suggest the need for timely interventions towards vulnerable youth and their families by identifying personal, familial and school factors associated with these two health- and life-compromising behaviors.

Keywords Suicide attempts · Runaway · Adolescents · Psychosocial correlates · Greece · Economic recession

Introduction

Adolescence is the period in which high-risk behaviors such as substance abuse, self-harm, recklessness (leading to accidental injuries), unsafe sexual behavior, delinquency, and running away from home are initiated and may escalate. These behaviors tend to co-occur, leading to heightened risk of harm and developmental consequences for psychological and physical health and well-being. Their negative outcomes are liable to extend into adulthood (Donovan et al. 1988; Simons and Whitbeck 1991; Susser et al. 1987).

Periods of economic recession have harmful effects on health; for example, suicide rates have increased in most European countries since the onset of the present economic crisis in 2008 (Stuckler et al. 2011). Aspects of an economic recession that have an adverse impact on health indicators include increased unemployment, labour-market insecurity, and significant cuts in social expenditures and welfare programmes (Yur'yev et al. 2013). Such adverse situations create a climate of insecurity and stress within the family that affects its normal functioning. Economic hardship, poverty and unemployment have a negative impact on mental health (Hudson 2005; Paul and Moser 2009). Adverse economic situations have also been shown to increase the risk to children's mental health and their vulnerability to developing problem behaviors during adolescence, by disrupting normal parenting and family processes (Carlo et al. 2011; Solantaus et al. 2004; Yoder and Hoyt 2005).

Recent reports underline the great stress that the current European economic recession is placing on many families in Greece, the most severely hit country, and on the mental health of their members (Efthimiou et al. 2013; Oikonomou and Tountas 2011). Rates of attempted suicide in the general population have increased alarmingly—by 36 % between 2009 and 2011 (Economou et al. 2011). Within this context, protecting families and their offspring from the deleterious effects of the economic crisis has currently become of major importance.

Mental health problems in adolescence are often expressed by internalized or externalized impulsive risk behaviors such as self-destructive behavior or opposition towards a perceived unsatisfactory family environment. The present paper focuses on two such risk behaviors in adolescence, namely, suicide attempts and running away from home. A common element in both these behaviors is the adolescent's desire to escape from his or her current reality. They are often associated with a negative home environment, among other things. Commonality between the two behaviors is further corroborated by reports that characterize running away as a "living suicide" (Peled and Cohavi 2009). Both these behaviors in adolescence may have severe consequences for health; suicide attempts are a strong predictor of deaths from suicide—which is the second cause of mortality among young people (Patton et al. 2009)—and running away from home is associated with early

sexual behavior, criminality, drug abuse and other health-compromising behaviors (Tyler et al. 2001a, b).

Although there is an extensive literature on suicidal behavior based on community samples of adolescents, the published data on runaway adolescents focus mainly on homeless youth (English and English 1999; Johnson et al. 2005; McMorris et al. 2002; Millburn et al. 2006; Peled and Cohavi 2009; Stein et al. 2009; Yoder 1999). Furthermore, to our knowledge there are no reports examining the two behaviors as possible alternative manifestations of a common underlying state.

The present paper examines suicide attempts and running away as early indicators of mental health problems among adolescent students, who represent the large majority (over 80 %) of the general adolescent population of Greece. This population is easily accessible through the school system, thus allowing the implementation of early interventions that have proven to be effective in delaying or preventing mental, emotional and behavioral disorders (O'Connell et al. 2009). The present paper provides further insight into self-reported suicide attempts and running away from home by examining the prevalence of these two behaviors in student adolescents and identifying associated psychosocial factors. We hypothesized that these behaviors would have common correlates. However, we expected that gender would be associated with the two behaviors in opposite directions: suicide attempts would be more common among girls than boys, but running away would be more common among boys than girls. Furthermore, we hypothesized that the socioeconomic crisis in Greece would have a negative impact on both behaviors. The findings are expected to provide better insight for the planning of preventive interventions, and to be valuable for tailoring interventions to the impact of the economic crisis in Greece and for suggesting directions for other countries facing the current global economic recession.

Methods

Sample

The sample was drawn from the most recent wave (2011) of the Greek National School Survey, which has been carried out every 4 years since the early 1980s. The survey has been harmonized since the mid-1990s with the protocol of the European School Population Survey on Alcohol and Other Drugs (ESPAD), which covers 16-year-old students from about 40 European countries (Hibell et al. 2012). The 2011 Greek survey was extended to include the wider age range of students in all six grades of high school.

A probability sample was drawn starting with stratification by prefecture (“nomos”) and school type (Gymnasium for the first three grades of high school, and General Lyceum and Technical Lyceum for the last three grades). Private schools formed an additional stratum in the few prefectures where they exist. The sampling frames were official lists of all schools of all types, with the numbers of classes and numbers of students in each grade. Schools for adolescents with special needs were excluded from the survey. 1,330 school classes (4.6 % of the total classes) were selected at random from these lists and all students registered in the selected classes were eligible to participate. Sampling was proportional between school types within prefectures, but not between prefectures.

An anonymous questionnaire was distributed for completion in the classroom by all students of the selected classes who were present in school that day, under the supervision of

trained research assistants. The purpose of the survey was explained and careful attention was paid to ensuring that the students understood that their anonymity was assured. The rate of absence was 10.5 % and the rate of refusal to participate among students who were present, including lack of parental permission, was 4.1 %. The final sample comprised 24,006 students aged 15–19 years; 23,279 (97.0 %) remained after data had been cleaned following the same rules that are applied centrally for all countries in the ESPAD project. The principal reasons for exclusion were missing gender (1.3 % of the original sample) and answering more than half the questions with the extreme response category (0.9 %).

Ethical Considerations

Ethical approval for the survey was obtained from the Pedagogical Institute of the Ministry of Education. Informed consent was obtained from parents and students for participation in the survey. The survey was anonymous and care was taken to preserve confidentiality.

Measures

All items were drawn from the ESPAD core questionnaire (Hibell et al. 2012) and the optional Psychosocial Module (Kokkevi and Fotiou 2009), which had also been used in the 2007 ESPAD survey.

Suicide attempts and running away were established from replies to the following two questions: “Has it ever happened that you attempted suicide? If so, how many times?” and “Has it ever happened that you left home for more than 1 day without informing your parents? If so, how many times?” Response categories for both items were: never, once, 2 times, 3–4 times and 5 or more times. Responses were recoded as no/yes.

The psychosocial factors investigated as possible correlates of suicide attempts and running away from home were gender, family economic status, family structure, quality of parental relationships and satisfaction with parents, parental monitoring, licit and illicit drug use, self-esteem, depressive mood, visiting a doctor for psychological problems, antisocial behavior, childhood abuse, and school satisfaction and adjustment. The relevant questions and responses are listed below. Responses were recoded into at most three categories. Qualitatively different responses were kept separate (for example, positive, neutral and negative responses) and categories with low frequency were separated only when they presented substantive interest (for example, the 7.4 % who believed that their family was worse off or very much worse off than the average).

Family Economic Status

“How good or bad do you think the financial situation of your family is, compared to other families in this country?” The seven possible responses, from “Very much better” to “Very much worse”, were recoded into the three categories “better” (41.5 %), “average” (51.2 %) and “worse” (7.4 %).

Family Structure

“Which of the following people live in the same household as you?” was followed by a list of ten categories of people, from which it was determined whether the adolescent was living with both biological parents (83.0 %) or not.

Satisfaction with Parents

The items “How satisfied are you usually with your relationship to your mother?” and “... your father?” were both answered on a scale from “Very satisfied” to “Not satisfied at all”. Satisfaction with parents was recorded as whichever of the two responses showed the greater degree of satisfaction, recoded as “satisfied” (92.2 %), “so-so” (4.2 %), and “not satisfied” (3.6 %).

Parental Monitoring

“Do your parents know where you spend your Saturday nights?” The available responses “Always know”, “Often know”, “Sometimes know” and “Usually don’t know” were recoded into “always” (62.0 %), “often” (23.0 %) and “sometimes/rarely” (15.0 %).

Parental Discipline

“How often do the following statements apply to you?” was followed by “My parents set specific rules about what I can do at home” and “My parents set specific rules about what I can do outside home”. Available responses to each question were “Almost always”, “Often”, “Sometimes”, “Rarely” and “Almost never”. The response showing greater discipline was retained, recoded as “almost always” (20.1 %), “often/sometimes” (48.5 %) and “rarely/almost never” (31.4 %).

Any Illicit Drug Use

“Have you ever used any of the following substances? If yes, how many times?” was followed by separate responses for cannabis, ecstasy, amphetamines, LSD, crack, cocaine, heroin, magic mushrooms and GHB, using a scale of seven categories from “Never” to “40 times or more”. The final response was recorded as “yes” (15.3 %) for any reported use of at least one substance, otherwise “no”. In most cases, cannabis use was reported (13.4 %).

Daily Smoking

“How many cigarettes have you smoked in the past 30 days?” The seven response categories, from “None” to “More than 20 cigarettes per day”, were grouped as “daily smoking” (19.4 %) and “less often/none” (80.6 %).

Alcohol Use

“Have you ever drunk any alcoholic beverage (e.g. beer, wine, ouzo, tsipouro, alcopops, wine, whisky, vodka, cognac, etc.)? If yes, how many times during the last 30 days?” The seven responses from “Never” to “40 times or more” were dichotomized as “never/<10 times” (85.2 %) and “10 times or more” (14.8 %). The cut-off of 10 times or more was chosen because light alcohol use at meal-times is common within the Greek family.

Visit to Doctor for Psychological Problem

“During the last 12 months how many times (if any) did you visit a doctor or other specialist for a psychological problem or symptom?” Responses, on a six-point scale from

“Never” to “10 times or more”, were dichotomized into “yes” (6.8 %) and “no” (93.2 %).

Satisfaction with School

“How satisfied are you usually with your school?” was answered on a five-point scale from “Very satisfied” to “Not at all satisfied”, and dichotomized into “satisfied/so-and-so” (73.4 %) and “not satisfied” (26.6 %).

Repeated Grade

“Have you ever been held back at school?” was answered as “never”, “yes, in primary school”, “yes, in junior high” or “yes, in senior high”, and recoded as “no” (91.4 %) or “yes” (8.6 %).

Physical, emotional or sexual abuse was established from three items: “Have you ever been abused by someone in your family or someone else? (1) Emotionally (with offensive words, threats, insults), (2) Physically (by hitting or injuring), (3) Sexually (with sexual propositions, touching or other sexual acts)”. Each item had seven responses “Mother”, “Father”, “Older siblings”, “Other relative”, “Someone else I know”, “Someone I don’t know” and “Nobody”. Reported abuse of any type by mother, father, or older siblings was recorded as *abused by family member* (24.2 %). Reported abuse of any type by another relative, someone else I know or someone I don’t know was recorded as *abused by someone outside the family* (22.5 %).

Self-esteem was measured using Rosenberg’s (1965) scale consisting of ten items each answered on a scale from 1 to 4. Low scores indicate low self-esteem, after reversing the direction of scoring of negatively worded items. The self-esteem score was calculated as the average of the responses to the individual items, subject to there being no more than one missing answer. The properties of this and the following two scales in this population were discussed in Kokkevi and Fotiou (2009). Cronbach’s alpha for the self-esteem scale was 0.77 in the present study.

Depressive mood was measured using a short 6-item version of the Center of Epidemiological Studies Depression (CES-D) scale (Radloff 1977; Kokkevi and Fotiou 2009). A high score indicates high depressive mood. The depressive mood score was calculated as the average of the responses to the individual items on a 1–4 scale, subject to there being no more than one missing answer. The value of Cronbach’s alpha in the present study was 0.80.

Antisocial behavior was measured using a 10-item scale taken from the Monitoring the Future Survey conducted in the USA (Johnston et al. 1982). The mean of responses to individual items on a 1–5 scale was calculated, subject to at least nine items having been answered. Higher scores indicate more antisocial behavior. The value of Cronbach’s alpha in the present study was 0.85.

Statistical Analysis

The relationship between each of the examined risk behaviors—self-reported suicide attempts and running away from home—and the demographic and psychosocial variables was investigated separately using logistic regression. Cases with missing value for any of the variables were excluded; 20,338 cases (87.4 %) remained in the analysis of suicide

attempts and 20,822 (89.4 %) in the analysis of running away. In order to examine for possibly different associations between risk behaviors and risk factors in boys and girls, interactions between gender and the other factors were also tested. The final models included only the factors that were significantly associated with the dependent variable ($P < 0.01$).

For better presentation of the interaction effects, two dummy variables were created, one for the effect of the factor in boys and another for its effect in girls, in place of the usual dummy variable coding which employs one dummy variable for the factor and one for the interaction.

Because of the non-proportional sampling, a design weight (proportional to the inverse of the probability of selection) was used for each prefecture in order to adjust to the correct proportion of the national school population. This was incorporated into all the statistical analyses. The effect of clustered sampling, with class as cluster, was also incorporated into the analyses. All analyses were performed using IBM SPSS 19.

Results

Table 1 shows the self-reported lifetime prevalence of lifetime suicide attempts and running away from home, with breakdowns by gender and age. The prevalence of self-reported suicide attempts in the total sample was 11.3 % and approximately half of these adolescents made more than one attempt (Table 1). The prevalence was more than twice as high in girls as in boys, and was much higher in the 19-year-olds than in younger adolescents. The overall prevalence (11.6 %) and repetition rates of running away from home were similar to those for suicide attempts. However, in contrast to suicide attempts, the prevalence of running away was higher among boys than girls. The oldest age group reported prevalence rates more than three times as high as the youngest.

The co-occurrence of suicide attempts and running away was common. The prevalence of running away was 25.6 % among those who reported suicide attempts compared to 9.8 % among those who did not. The prevalence of self-reported suicide attempts was 24.9 % among those who reported running away from home compared to 9.5 % among those who did not.

Table 2 shows the results of the logistic regression analyses with the two high-risk behaviors as dependent variables. As predicted by our hypotheses, self-reported suicide attempts and running away from home shared several common correlates among the psychosocial factors that were tested for inclusion in the model. These were: low satisfaction with parental relationships, less parental monitoring, dissatisfaction with school and poor school performance (repeating a grade), regular smoking, emotional and psychological or behavioral problems (as expressed by increased depressive mood, antisocial behavior and visits to a doctor for psychological problems), and physical or emotional abuse (either by a family member or by another person). As indicated below, some of these factors had different strengths in the two regressions, or appeared in a significant interaction with gender in one regression but not the other. However, all effects were in the same direction in both regressions with the sole exception of gender. This was a very strong common correlate for both behaviors but (as hypothesized) in opposite directions, female gender being associated with a much higher probability of self-reported suicide attempts (odds ratio, OR = 2.8) and male gender with a much higher probability of running away (OR = 0.3 for female gender, hence 3.3 for male).

Table 1 Lifetime prevalence (%) of self-reported suicide attempts and running away from home, by gender and age

	Total n = 23,279 (%)	Boys n = 11,661 (%)	Girls n = 11,618 (%)	15–16 years old n = 11,728 (%)	17–18 years old n = 10,453 (%)	19+ years old n = 1,098 (%)
<i>Suicide attempts</i>						
Any	11.3	6.7	16.0	10.2	11.6	18.1
Once	5.8	3.1	8.6	5.1	6.0	10.1
Twice or more	5.5	3.6	7.4	5.1	5.6	8.0
<i>Running away from home</i>						
Any	11.6	14.7	8.4	8.9	12.0	31.3
Once	6.8	8.2	5.3	5.5	7.1	15.4
Twice or more	4.8	6.5	3.1	3.5	4.9	16.0

Among these common correlates, the strengths of the associations with the two dependent variables were different in some cases. Lack of parental monitoring and anti-social behavior (among girls) were much more strongly associated with running away than with suicide attempts. On the other hand, depressive mood and visits to a doctor for psychological problems (among boys) were much more strongly associated with suicide attempts than with running away from home.

Besides these common variables, several behavior-specific differences were noted. Low self-esteem was a significant factor for suicide attempts but not for running away. Factors associated with running away but not with suicide attempts were: not living with both parents, frequent alcohol consumption and illicit drug use.

A significant interaction with gender in the regression for suicide attempts was found for visits to a doctor for psychological problems; this was a strong risk factor for both genders but especially for males. Significant interactions with gender in the regression for running away were found for the use of any illicit drug, which was a clearly significant risk factor only for males, regular smoking (significant only for females), and antisocial behavior (a very strong risk factor for females but less so for males).

Family economic status and parental discipline were not significant in either regression. The lack of significance of the former meant that our hypothesis of the effect of the socioeconomic crisis was not supported by this analysis.

Discussion

The aim of the present study was to gain insight into running away and suicide attempts among adolescents, and their associated factors, as early indicators of mental health problems. In providing data on runaway behavior in an adolescent community sample, it fills a gap that we believe to exist in the international literature. Furthermore, it deepens our understanding of this behavior through its examination in parallel with the self-destructive and life-threatening behavior of suicide attempts. We examined commonalities between the two behaviors including their prevalence and psychosocial correlates on the basis of the

Table 2 Results of logistic regressions with dependent variables any self-reported suicide attempt and running away from home

	Suicide attempts		Running away	
	OR	(99 % CI)	OR	(99 % CI)
Female	2.8	(2.3–3.5)	0.3	(0.1–0.6)
Age			1.1	(1.1–1.2)
Not living with both parents			1.4	(1.1–1.7)
Satisfaction with relationship with parents				
Satisfied	1 ^a		1 ^a	
Neither satisfied nor dissatisfied	1.6	(1.3–2.0)	1.3	(1.0–1.6)
Dissatisfied	1.8	(1.4–2.3)	1.4	(1.1–1.8)
Parental monitoring				
Always	1 ^a		1 ^a	
Often	1.1	(1.0–1.3)	1.5	(1.3–1.7)
Sometimes/rarely	1.3	(1.1–1.5)	2.0	(1.7–2.4)
Dissatisfied with school	1.2	(1.0–1.5)	1.3	(1.1–1.5)
Repeat grade	1.5	(1.1–2.0)	1.7	(1.4–2.2)
Daily smoking last 30 days	1.7	(1.4–2.2)		
Among females ^b			2.0	(1.5–2.8)
Among males ^b			1.2	(0.9–1.6)
Frequent alcohol consumption			1.4	(1.2–1.8)
Any illicit drug lifetime				
Among females ^b			1.1	(0.8–1.6)
Among males ^b			1.8	(1.4–2.3)
Low self-esteem scale (1–4)	1.3	(1.2–1.4)		
Depression scale (1–4)	2.0	(1.7–2.3)	1.2	(1.0–1.4)
Antisocial behavior scale (1–5)	1.6	(1.3–1.9)		
Among females ^b			3.2	(1.8–5.9)
Among males ^b			1.6	(1.3–2.0)
Abused by family member	2.2	(1.9–2.6)	1.8	(1.5–2.1)
Abused by someone outside the family	1.5	(1.2–1.7)	1.3	(1.1–1.6)
Visits to a doctor/psychologist for psychological problem	2.1	(1.6–2.8)		
Among females ^b	1.9	(1.4–2.5)		
Among males ^b	4.3	(2.9–6.4)		

^a OR = 1 indicates the reference category

^b Interaction terms with gender

hypothesis that they might constitute two alternative expressions of young people's discontent and unhappiness with their family or school microenvironment. Our final aim was to identify early signs of maladjustment that could assist the implementation of timely interventions for preventing full-blown disorders and related consequences. This is of primary importance, especially during the current period of severe economic recession that is placing enormous stress on Greek families.

The two behaviors had similar levels of prevalence among Greek adolescents—11.3 % for self-reported suicide attempts and 11.6 % for running away from home. Girls showed

higher rates of suicide attempts than boys, and boys higher rates of running away than girls. The prevalences of both behaviors were very close to the averages for 16-year-old students in European countries participating in the ESPAD survey (Hibell et al. 2012). Findings from the USA show an annual prevalence of running away of 6.7 %, with greater frequency among boys than girls (Ringwalt et al. 1998), and 7.8 % for suicide attempts, more common among girls than boys (Eaton et al. 2012). These gender differences concur with the established finding that internalizing behaviors (such as suicide attempts) are more common among females than males whereas the opposite holds for externalizing behaviors (such as running away) (Hawton et al. 2003; Waldrop et al. 2007; Evans et al. 2005; Peter et al. 2008; Boesky et al. 1997).

Self-reports of suicide attempts and running away were found to co-occur frequently; approximately a quarter of the adolescents who reported the one behavior, also reported the other. This corroborates findings from other studies that more than half (54.9 %) of run-away and homeless adolescents endorsed some level of suicidal ideation and that a quarter of them (26.3 %) had attempted suicide in the year prior to the interview (Yoder et al. 1998).

The psychosocial and behavioral characteristics that were found to be associated with both behaviors included family relationships, parental monitoring, school adjustment, victimization, and behavioral and emotional problems. These findings are in line with other reports of the risk and protective factors for the psychological and physical health of young people (Resnick et al. 1997; Karademias et al. 2008; Kokkevi et al. 2008, 2011; Hawkins et al. 1992). They indicate, in line with our hypothesis, that negative emotions—either related to one’s self (low self-esteem and depressive mood), or to an unfavorable family or school environment in which the adolescent does not feel happy and secure—may create the need to “escape” by seeking a way out through suicide attempts or running away from home (Tyler et al. 2011). Developmental characteristics at this period of life such as reduced self-control and proneness to acting-out behaviors increase the probability of such actions. In this light, running away by adolescents has been considered as an equivalent of “living suicide” (Peled and Cohavi 2009). The presence of many correlates common to both behaviors suggests that suicide attempts and running away may also share common etiological factors, possibly shared with other risk behaviors as well.

Regarding gender-specific associations, our results show that boys who reported that they had attempted suicide were characterised by more intense psychological problems (visits to doctor for psychological problems) than girls. Girls who had run away from home showed a stronger deviancy from social norms (measured by the antisocial behavior scale) than boys. A possible explanation of these gender differences is that a higher association is expected between deviant behaviors and other characteristics when both have low prevalence; for example, attempted suicide and visiting a doctor for psychological problems are both rarer among boys than girls, and correspondingly their association is stronger for boys than for girls.

Low economic status is considered to be a risk factor for mental health (Solantaus et al. 2004). In our study, despite the much higher percentages of reported suicide attempts (20.7 %) and running away (20.4 %) among students who perceived their family as less well-off than most other families—compared to 10.5 % for suicide attempts and 10.9 % for running away among the other students—economic status did not appear as a significant correlate in the regression analysis for either of the behaviors. Furthermore, comparing the 2007 and 2011 student surveys, the economic recession in Greece seems not to have had a significant impact on the rate of self-reported suicide attempts among Greek adolescents. This finding does not appear to support our hypothesis regarding the impact on

these behaviors of the economic crisis in Greece. It is possible, however, that the repercussions of the deep economic crisis that started in 2008 had not yet affected Greek families severely by 2011. In addition, economic hardship in the family might have been underestimated by adolescents, because of a protective attitude on the part of parents towards their offspring regarding the existence of problems until their impact becomes more strongly felt (Safilios-Rothschild 1967; Madianos and Madianou 1991). The supporting role of the extended family in attenuating stressful situations should also be mentioned here. It is typical of Greek family culture that members of the extended family rally to face difficulties (Georgas 2006). Grandparents provide emotional support and financial assistance to their children's families, even out of their low pensions, in order to help the parental generation. They also provide daily child care, assistance and protection to their grandchildren, making every effort to shield them from exposure to painful realities (Svensson-Dianellou et al. 2010).

In fact, many of the changes observed between 2007 and 2011 are indicative of a deteriorating situation. These include increases in low family economic status (from 5.2 to 7.3 %) and in parental unemployment (from 1.2 to 4.8 % for the father and from 19.4 to 22.6 % for the mother). Certain psychosocial measures reported in these two surveys also show a negative trend, such as decreased parental monitoring (from 17.2 to 15.1 %), an increase in lack of satisfaction with parents (from 2.9 to 3.6 %) and an increase in students' illicit drug use (from 12.0 to 15.3 %). However, these are all items reported by only a minority of students. Data from the next nationwide survey, to be carried out in 2014, are expected to shed more light on the longer-term consequences of the economic crisis for families.

Strengths

The strengths of our work include the fact that it provides data on the issue of running away among the general population of adolescents, a topic that has not been widely studied in the international literature. Another merit is that it approaches with a common methodology and within the same population two high-risk behaviors that share the common behavioral element of the adolescent's need to escape from his or her current living situation. We believe that the commonalities and differences revealed in the analyses of the two behaviors deepen our understanding of these phenomena. Finally, these data provide a baseline for comparisons with data from the forthcoming 2014 student survey that is expected to contribute to further improvement of our understanding of adolescent risk behaviors and the impact of the economic recession in Greece.

Limitations

Because the study is cross-sectional in nature, the usual reservation, that it does not allow etiological inferences to be drawn, applies. However, the young age of the population under study suggests that the factors associated with these two behaviors are more likely to be their causes than their consequences. Another limitation of our study—in common with most school studies—is that it relies on self-reports. However, it has been asserted that self-reports elicit more valid data from this age group than other methods are able to (De Wilde and Kienhorst 1995).

Implications

Findings from this study underline the need for preventive efforts to be oriented towards vulnerable families and youth in the afflicted Greek society. School-based mental health programmes including early interventions have shown evidence of impacts across a range of emotional and behavioral problems (O’Connell et al. 2009). Schools and teachers should receive greater support in identifying as early as possible students who are at risk because of school difficulties or an unfavourable family situation, and making the necessary referrals to specialised services. Despite the impact of current financial restrictions on the primary health care system, it is imperative to identify and support the growing number of families that faces economic stress. The development within Greece of the necessary community mental health services for children and adolescents, and their linkage to schools, is therefore an increasingly important policy for reducing health risks among adolescents.

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Conflict of interest The authors declare that they have no conflict of interest.

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