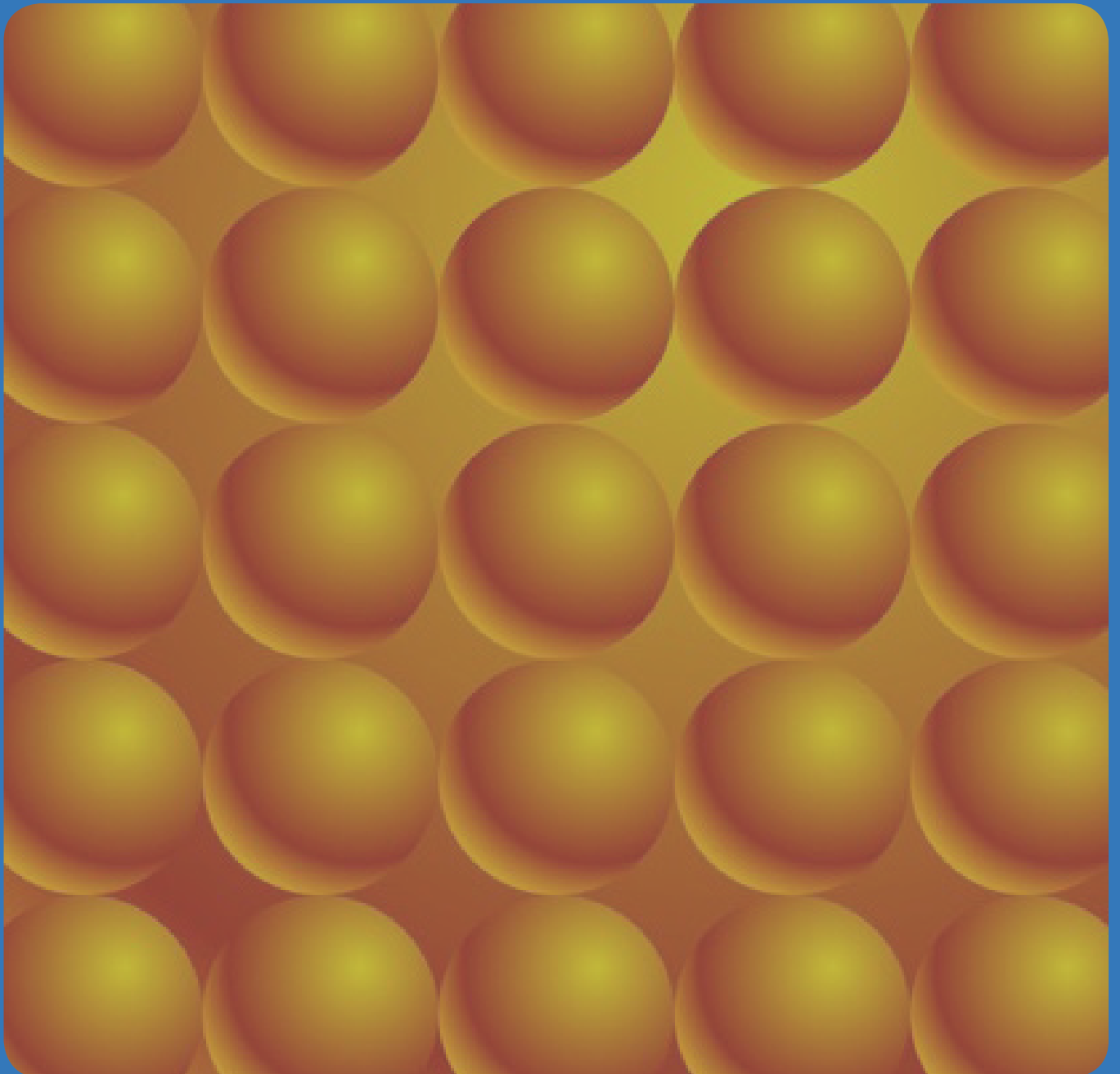




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Editorial

Towards a mental health democracy

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Introduction

Despite advances in research and medical technology, between 76% and 85% of people with serious mental disorders had received no treatment in the previous year according to the world mental-health survey conducted by the WHO in 2011 (1). Still, nowhere in the world does mental health enjoy parity with physical health in national policies and budgets or in medical education and practice (2,3,4). Although WHO has stressed the importance of social determinants in health and mental health, public policies continue to neglect how poverty affects mental health, creates violence, social exclusion and breakdown of communities.

As the Special Rapporteur to the UN on the right of everyone to enjoy the highest attainable standard of physical and mental health points out precisely “the crisis in mental health should be managed not as a crisis of individual conditions, but as a crisis of social obstacles, which hinders individual rights. Mental health policies should address the “power imbalance” rather than “chemical imbalance” (3:19). These obstacles are:

- Dominance of the biomedical model
- Power asymmetries
- Biased use of evidence in mental health

Situation in Greece

In Greece, those obstacles are evident at every level. The doctor – patient relationship remains central; still there are two trends in the way this relationship is manifested. On the one hand, as a consensual and complementary relationship; here, the doctor ideally straggles to restore patient’s health and protect him. According to existing social norms, patients have to want to recover and the doctors are the ones to help. On the other hand, as one of conflict. The perception here is that the patient-doctor relationship, generally and particularly in the area of mental health, appears to be one of conflict and full of challenges. The underlying assumption of both the consensual and conflicting approach is that the doctor-patient relationship is asymmetrical, with health care professionals drawing their power from their established authority. This, in turn, permits them to operate as mediators in social control (3:190-191). However, the extent to which a doctor must exercise such an authority remains particularly questionable. Patients have to face a double bond. On the one hand, they encounter more and more declarations calling them to claim their rights in information and decision-making, to seek information from multiple sources and to have a say in the quality of services provided, and on the other hand, they are required to submit to the doctor’s judgement and expertise. Development of psychiatry, closely following relevant social developments, is constantly transforming clinical-theoretical models, means of organising services and a relationship with users and their families. Decision-making power in mental health is concentrated in the hands of biomedical gatekeepers, in particular biological psychiatry backed by the pharmaceutical industry. At the clinical level, power imbalances reinforce paternalism and

even patriarchal approaches, which dominate the relationship between psychiatric professionals and users of mental health services. Organised professional associations such as those of psychiatrists and trade unions exacerbate this imbalance by resisting reform of service provision and working models.

The asymmetry of the medical therapeutic relationship is organised around the scientific knowledge and technical know-how, around the ignorance of the individual's needs and their wishes. Thus, opinion is legalised socially and supplies the stereotype dominating relationships between the psychiatric team and patients-users, even if this is conducted in a theoretically "open" community framework and not within a total psychiatric institution (5, 6). In this asymmetrical game, however, where one "loses" and the other "wins", each one is aware of both roles, the one stigmatising and the other being stigmatised. User participation grants to those specified roles a mental, social and institutional opening, strengthening, as F. Basaglia stated, the negotiating position of the weak.

The basis of common action and transformation of traditional psychiatric culture towards a collective democracy of health can be established from such a beginning. In a statement regarding ethics, P. Ricoeur (7) describes the doctor-patient relationship as an agreement of trust, a kind of forged alliance between two people against a common enemy, the disorder. However, before an agreement of trust can be established, there must be a stage of suspicion, embarrassment and reluctance. The patient expresses a request for treatment, suspicious against the one who is in theory the expert, and the doctor who tries to cater to patient requests, may, in turn, become suspicious of non-compliance to the treatment prescribed by him.

In order for the agreement to be established, Ricoeur stressed that both involved parties must recognise the uniqueness of this relationship, the "non- interchangeable character of one with the other". Therefore, the only possibility for this agreement to work is to consider the contracting parties as authentic partners rather than a "democratic alibi" used as argument of legacy by mental health professionals which requires the active involvement of the patient in the management and development of his treatment and care.

We can, however, observe three paradoxes in this agreement. The first paradox is that the subject is not an object, but the body is a part of the physical reality observed and is "objectified" by ethics, the approach and the technical arsenal of biological medicine-psychiatry. Psychiatry is often on a slippery slope, following the disconnection of body and soul in a simplistic biological reductionism, obscuring a big part of understanding and consequently the holistic care of the ailing subject.

The second paradox has to do with the fact that the individual is not a commodity, nor should medicine be subject to the laws of the market; however, in fact, medicine has a price and a high social cost for public health and private healthcare. The last paradox overlaps the previous ones: suffering is private, but health is public. If all these contradictions generate conflict and if misguided psychiatrisation and the penalisation of social problems create enormous contrasts, the only possible framework where a possible solution may emerge is the consensual/conflicting process of the involved parties (8).

We would add to the obstacles the democratic function level, what we would call "democracy deficit". Open access of European citizens to quality healthcare, social welfare and education services, as well as the declared aim of reducing social inequalities and social exclusion formed part of the European identity. The principles of social protection came close to such an axiological, ethical, legal and institutional level that Western Europe was characterised a "secure" society, in the sense that it was capable of providing security and protection to its members. The need for bold reforms in Greece was already clear since the birth of the Greek state in the face of the "ineffective, irrational and/or morally unacceptable mode of operation of its institutions" (9). The lack of resources driven by the biomedical model that obscures social factors leads, especially during the economical, political and social crisis in our country, to shifting the burden of care to society rather than building and reinforcing a protection system.

Suggestions

On the basis of a “joint morale”, we are required to discuss collectively and democratically the relations between disease and health and what we call personalised care, treatment and life plan to showcase a “third way” where the involved parties, namely, the social groups receiving services, the people involved in general health and mental health and local communities with their representatives, will empower their participative movement and will become involved in openly processing and evaluating a health system, where all coexist (10, 11, 12). The “open dialogue” approach may represent a promising tool promoting a radical change of traditional psychiatric culture and practice.

User involvement should become national policy with a specific framework that will be structured gradually on the basis of good examples. In cases where users offer services (care, consultancy, participation in research and training), the relationship with the service or with the action in general must be remunerated, so that obligations are met on both sides and there are no phenomena of patronising. Training programmes must be established, structured by users for users and professionals.

At European level, very few users’ and relatives’ movements are independent and powerful in terms of funding, while most are supported by a specific few number of people and are vulnerable to crises (13). In order for user participation to work properly, there should be allocation of authority and recognition of user and family associations as institutional interlocutors with validity and arguments (14) and users must be considered active citizens with rights and obligations and not faceless collateral losses of a dysfunctional system. Provided we continue to recognise the right of individuals to self-determination, besides any social dictates describing fear of the unfamiliar and the unwillingness to take on responsibility and to delete whatever is different, we can continue talking about the non-negotiable dignity inherent in any individual, irrespective and beyond social, political, financial and cultural crises or “trends”. Concerted efforts – from policymakers, epidemiologists, health economists, clinicians, patients and their families – for ameliorating the mental health impact of the recession in

Greece are urgently needed, in order to militate against exacerbation of psychiatric morbidity in the foreseeable future and to avoid a potential outbreak of suicides (15).

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Review

E-cigarette use among adolescents: Controversies and challenges for future research

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Abstract

As e-cigarette use increases rapidly, it is important to examine its appeal, influence and effects among adolescents. Evidence shows that adolescents using e-cigarettes are at higher risk to initiate and/or continue using tobacco and cannabis. E-cigarettes have been promoted in multiple ways by the media as a healthier alternative to smoking and some studies present benefits of its use when compared to combustible cigarette smoking. On the other hand, numerous studies on adolescent populations point out the negative biological effects of e-cigarettes due to chemical substances that some of their products contain, as well as its sociological and emotional effects. In 2012, the United States Centre of Disease Control and Prevention estimated that e-cigarette use doubled among middle and high school students. In Greece, significant changes in smoking behaviors have been observed during the past few years, possibly as a combined result of the implemented tobacco control and austerity measures. A study among Greek adolescents reported that in 2015 39% of 16 year-old high school pupils nationwide had smoked cigarettes at least once in their lifetime, while 13% were regular smokers (1). Another study reported that half of the population of 15 year-old Greek pupils who have used combustible cigarettes have also tried e-cigarettes (2). In the present paper we review literature regarding e-cigarette use during adolescence and discuss some key issues, such as probable reasons for the initiation and/or continuation of its use, as well as its physical, emotional and social effects. Finally, we present some public health measures that have been proposed aiming at controlling e-cigarette use among adolescents.

Key words: adolescents, smoking, e-cigarette, vaporizer, vaping.

Introduction

It has been estimated that approximately 25 million 13–15 years old boys and 13 million girls of the same age smoke cigarettes or use smokeless tobacco products worldwide. Regarding the prevalence of the phenomenon, significant differences occur between countries. In 2014 9.2% of United States high-school students smoked cigarettes, while at the same year the “2014 Health Behavior in School-aged Children Study” conducted among 15-year-old pupils in Greece reported 36.9% lifetime smoking of conventional cigarettes and 16.6% lifetime use of e-cigarettes, mostly experimenting (0.5% reported current e-cigarette use) (3). According to the “Global Youth Tobacco Survey” conducted in 108 countries between 1999 and 2016, the countries with the highest prevalence of tobacco use among youth are generally non-very-high HDI (Human Development Index) countries. In several of these countries tobacco use among adolescent girls is now more common than among adult women, while in some countries tobacco is now more commonly used by youth than by adults (4).

Adolescent smoking has been known to be a major issue for health systems and the public health of the entire population. Apart from the profound adverse effects of nicotine on the developing brain, the issue of transition appears to be also rather significant, since 60-90% of adult smokers started smoking before the age of 18 years. At the same time the duration of tobacco use is more likely to be longer among those who start tobacco use at an earlier age than those who start it later in life (5). However, during the last decade a new public health issue has emerged. Since its introduction in the market (2007 in the United States) e-cigarette has been increasingly used by adolescents worldwide. According to the Centre of Disease Control and Prevention, 1.78 million students reported having ever used e-cigarettes as of 2012, while in 2014 13.4% of high-school students in the United States reported having used e-cigarettes in the past 30 days. E-cigarette use in many countries remains unregulated by national or international organizations with no restrictions on its sale to children and adolescents. What is more, the overall impact of e-cigarette on public health is still uncertain, raising serious concerns and an urgent need for systematic and extensive research on the field.

Method

In the present paper we investigated existing evidence regarding e-cigarette use among adolescents. We conducted a literature review on PubMed and Google Scholar using the key words: “adolescents”, “e-cigarette”, “teenagers”, “vaping”. Studies using adult population or investigating tobacco use, cannabis or other drug abuse were excluded. Our research resulted in 57 results. Articles should be published in English and included both original researches and literature reviews. It should be noted that we found only a small number of studies investigating the issue in the Greek adolescent population.

Psychosocial factors related to e-cigarette use

Relevant literature shows that adolescent groups with e-cigarette users often include also combustible cigarette smokers (6). This may mean that combustible cigarette smokers may act as a potential risk factor for their peers not only by providing cigarettes, but also by presenting patterns and attitudes of smoking related behavior and thus familiarize smoke-free adolescents with the image of a smoker (6,7). According to the “problem behavior theory” adolescents who reject mainstream values are susceptible to adopt several types of deviating behavior (8).

On the other hand, adolescents who are considered to be at “lower risk” may initiate the use of e-cigarettes and prefer it to combustible cigarettes, because of the perception that the e-cigarette is more socially acceptable and not as damaging to health, as the combustible cigarette (9). Evidence also indicates that adolescents who start e-cigarette use, become more prone to attitudinal changes that could lead to a growing interest to experiment with or even initiate marijuana or other substance use as well (6,7). This may be also facilitated through the availability of several types of marijuana that can be inhaled through a device similar to the e-cigarette or even through the e-cigarette itself, by using marijuana liquids that contain the hallucinatory THC substance instead of the regular e-cigarette liquids, which may or may not contain nicotine.

Adolescents, who are already familiar with the inhalation of e-cigarette liquids, may thus perceive the THC liquid inhalation as something not as harmful (6).

Evidence shows that some adolescents might not even know that the e-cigarette contains nicotine, thus they might be inhaling nicotine without even realizing it. Among these adolescents, previous combustible cigarette use did not correlate to the initiation of the use of e-cigarettes containing nicotine (10). Furthermore, Dutra's findings suggest that the e-cigarette was not associated with the decline of combustible smoking, as far as the adolescents are concerned (11).

The electronic cigarette is becoming a trend, replacing to some extent combustible cigarettes and gaining appeal among adolescents, who may experience feelings of empowerment, rebelliousness or edginess through e-cigarette use. Adolescents may even enjoy the variety of e-cigarettes and their flavors, which may also act as status symbols, depending on their price, quality and style.

According to a recent literature review of 25 research articles the most significant variables associated with e-cigarette use among adolescents were male gender, older age, conventional smoking, peer influence, as well as daily and heavier smoking (12).

A study conducted in Germany with a sample of 2,693 adolescents (mean age = 12.5 years, SD = 0.6), shows that 126 students (4.7%) had tried e-cigarettes, 76.2% (n = 96) of whom had also tried conventional cigarettes and thus were considered as dual users. E-cigarette use was associated with parental, family members' or friends' combustible cigarette smoking, male gender, older age, lower academic achievement and higher sensation seeking scores. Interestingly enough, lifetime use of conventional cigarettes at baseline was associated neither with e-cigarette nor with dual use at the follow up measurement (13). Another study investigating the temporal regularity of e-cigarette use found a decrease during the past 30 days, a finding which may indicate that adolescents are not using the e-cigarette on a regular basis (10).

A further study conducted in 27 European countries has

shown that: "the perception that e-cigarettes are harmful increased from 27.1% in 2012 to 51.6% in 2014, but there were major differences in prevalence and trends between member states. Among those who reported that they had tried using an e-cigarette in the 2014 survey, 15.3% defined themselves as current users" (14). Another interesting finding of the study was that those who had tried an e-cigarette in order to quit smoking were more likely to be current users (14).

A study of 2084 11th- and 12th-grade students in Southern California found that 499 (24.0%) students had used an e-cigarette, 200 of whom (9.6%) were current users (among the past 30 days), 390 (18.7%) students had tried a combustible cigarette and 119 (5.7%) were current cigarette smokers. The majority of the students agreed on the fact that cigarettes (98.6%) and e-cigarettes (86.0%) are harmful for one's health, but almost half of current e-cigarette users disagreed on the harmfulness of e-cigarettes. 40.5% (n = 81) of current e-cigarette users had never tried combustible cigarettes. This study's findings regarding the association between adolescent's e-cigarette use and family members' and/or friends' e-cigarette use or combustible smoking are in concordance with the findings of many other similar studies(15).

Leventhal et al conducted a study, which included two follow-up assessments (after 6 and 12 months), studying a sample of 2,530 high school students in California and found that e-cigarette use was positively associated with the use of combustible tobacco products. E-cigarette use was also associated with male gender, native Hawaiian/Pacific islander ethnicity, lower parental education level, peer smoking, impulsivity, use of non-nicotine or tobacco substances and delinquent behavior. Positive associations were also found between e-cigarette use and other types of smoking, such as combustible cigarette, hookah and cigar smoking (16).

According to Morean et al, factors such as using nicotine e-liquid or purchasing e-cigarettes from tobacco shops, gas stations and online retailers were all associated with combustible cigarette smoking (p-values < .01). Adolescents using e-cigarettes that contain nicotine were also found to be heavier e-cigarette users (p < .01). Thus, the main finding of this study is that it is

more likely adolescents who use e-cigarettes containing nicotine not only smoke other types of cigarettes as well, but are also heavier users. It was reported that a significant number of adolescents did not know the levels of nicotine concentration in the e-cigarettes that they used. This finding combined with the lack of adequate evidence on nicotine concentration in e-cigarettes used by adolescents raises serious concerns about the levels and consequences of youth exposure to nicotine (17).

According to Leventhal et al's study, adolescents using only e-cigarettes reported lower levels of internalizing syndromes, such as generalized anxiety disorder, obsessive-compulsive disorder, panic, depression, social phobia in comparison to adolescents using combustible cigarettes only, but higher levels of panic disorder, anhedonia and depression when compared to non smokers. As far as externalizing syndromes (rash action during positive affect, alcohol drug use/abuse, mania) are concerned, dual users presented the highest levels of psychiatric comorbidity, followed by single product users (combustible or e-cigarette users only) and non smokers who presented the lowest levels (18).

E-cigarette and tobacco products use in Greece among adolescents

In Greece, significant changes in smoking behaviors have been observed during the past few years, possibly as a combined result of the implemented tobacco control and austerity measures. A study about smoking, alcohol and drug use among Greek adolescents reported that in 2015 39,2% of 16-year-old high school pupils nationwide had smoked cigarettes at least once in their lifetime, while 13% were regular smokers, predominantly males (1). Another study in Greece reported that half of the population of 15-year-old pupils who have used combustible cigarettes, have also tried e-cigarettes (2).

Male adolescents were 7 times more likely to use e-cigarettes, while female gender was associated with lifetime tobacco use. E-cigarette use was associated with current not heavy smoking (1). Alcohol and low parental monitoring correlated with tobacco, but not with e-cigarette use. Cannabis and peer smoking showed

a stronger correlation with tobacco, than with e-cigarette use (2).

According to Farsalinos's study conducted in 2017, e-cigarette users in Greece tend to be current or former smokers. The authors argue that it's highly unlikely for people that have never smoked before to prefer e-cigarettes that contain nicotine or to even start using e-cigarettes. Finally, another interesting finding of the same study was that "most participants overestimated the harmfulness of e-cigarettes relative to smoking" (19).

Discussion

Adolescence is considered to be the critical age of starting and establishing tobacco use (20). Adolescents prefer using multiple and flavored tobacco products (21) and this preference could cause susceptibility to nicotine dependence and continuance of tobacco use (22). According to the "gateway theory", early initiation of alcohol or tobacco use during adolescence can increase the risk of initiating cannabis use or other illegal-harmful substances (1). E-cigarette use can be also viewed as a gateway to combustible cigarette smoking (23).

According to the Centre of Disease and Control, e-cigarette use increased about 8 times from 2011 to 2016 among middle and high school students (24). A substantial number of adolescents who use e-cigarettes also smoke combustible cigarettes (25, 9) and tend to associate themselves with other e-cigarette/combustible cigarette users (6). On the other hand, because of the more negative perceptions associated with combustible cigarette smoking (26), adolescents who use e-cigarettes may view themselves in a different light when compared to the image they have for combustible cigarette smokers (27). Furthermore and given the higher sensitivity of the adolescent brain to nicotine, the biological and physiological effects of nicotine contained in e-cigarettes are thought to contribute significantly to the overall phenomenon of nicotine addiction (5, 28).

Conclusion

Various measures have been proposed aiming at reducing

or controlling the increase of tobacco and e-cigarette use among adolescents. Some of the proposed measures to include increasing the costs of tobacco/ e-cigarette products (for example, by increasing taxes) while making the e-cigarette and its products unavailable to minors, for example by raising the minimum age of sale for tobacco/ e-cigarette products to 21 years old (29). Other measures could be the promotion of healthy habits by the media, the reduction of tobacco/e-cigarette advertising, promotion and availability, the implementation of community, school and university policies and interventions that promote tobacco-free environments and lifestyles, as well as the prohibition of smoking in public, work related, school and university areas (20, 22, 30). Maintaining a strong racial identity, as well as ethnic pride or being part of productive groups (such as art, gymnastics, dance groups) and focusing the attention on higher academic achievement is also considered a way to prohibit adolescents from initiating e-cigarette use, as well as tobacco or combustible cigarette use (20). In conclusion, evidence indicates that specific measures, such as public health monitoring and health awareness programs, could help adolescents acquire relevant knowledge and finally change their smoking behavior.

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Constantinos Togas, Foteini Mavrogiorgi, George Alexias

Examining the relationship between coping strategies, perceived social support and mental health in psychosocial and environmental problems

Research

Examining the relationship between coping strategies, perceived social support and mental health in psychosocial and environmental problems

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Abstract

Introduction: Coping strategies are used in stressful situations and have been examined in many studies. However, very few studies have examined the association between coping strategies, perceived social support and mental health in psychosocial and environmental problems in the general population.

Methods: A cross-sectional study was conducted with a sample of 482 individuals (n=482) from Greece's general population. A composite questionnaire was used, including demographic information, the Coping Strategy Indicator (CSI), the Multidimensional Scale of Perceived Social Support (MSPSS) and the General Health Questionnaire-28. The program SPSS 21.0 was used for data analysis.

Results: Mean age of the participants=38.67 years (M = 38.67, SD = 13.20, Min = 18, Max = 71, Range=53), men=36.9%, women=63.1. Mean score of the CSI scales: Problem Solving=23.60, Seeking Social Support=23.33, Avoidance-Distraction=9.82, Avoidance-Withdrawal=8.45. Mean score of MSPSS=67.79 and of the GHQ-28=23.71. Younger participants had higher score in Seeking Social Support ($F_{4,462}=3.112, p=0.015$) and lower score in Avoidance-withdrawal ($F_{4,467}=3.265, p=0.012$) scales. There were no significant differences between the type of stressors in the CSI scales score. Concerning the GHQ-28, women had higher score than men in Somatic symptoms ($t=-2.875, df=476, p=0.004$) and in Anxiety/Insomnia ($t=-2.667, df=474, p=0.007$) subscales. Illiterate-graduates of primary school had higher score in GHQ-28 ($F_{3,464}=3.382, p=0.018$) and in Anxiety/Insomnia subscale ($F_{3,470}=5.277, p=0.001$). The type of stressor was found to be significant in severe depression subscale ($F_{9,472}=2.603, p=0.006$). Age correlated significantly only with Seeking Social Support ($r=-.129, p<0.05$), while a positive correlation was found between Avoidance-Withdrawal and GHQ-28 ($r=.117, p<0.05$) and a negative one between MSPSS and GHQ-28 ($r=-.283, p<0.01$).

Discussion: Avoidance-withdrawal coping strategy and low perceived social support predict mental health problems (anxiety/insomnia, social dysfunction, somatic symptoms, depression) in general population. Differences in coping strategies are associated with age, age group, gender and in mental health problems with age group, gender, educational level and type of stressor. Future research is suggested, so that further clarification of the study's results to be possible.

Key-words: Stress, coping strategies, social support, mental health, psychosocial problems.

Introduction

Considerable amount of research has been made in the area of strategies for coping with stress during the past few decades. Lazarus and Folkman define coping as “the person’s constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person’s resources” [1]. According to them, coping is “process oriented, influenced by the personal situation and a person’s efforts to manage demand without a prior assumption about what constitutes good or bad coping” [2].

Researchers divide coping as active versus passive strategies or problem-focused versus emotion-focused strategies, especially when considering the impact of coping on the mental health [1,3,4]. For example, active coping was associated with reports of less depression and passive coping with reports of greater depression in a sample of rheumatoid arthritis patients [5]. Other researchers divide coping strategies into three categories: active behavioral coping, active cognitive coping the avoidance coping [6]. In a later distinction, Folkman groups coping styles into problem-focused, emotion-focused and problem assessment-focused [7].

Researchers have also found that the emotion-focused coping is positively correlated with poor mental health and a reliance on emotion-focused coping to the exclusion of problem-focused coping is associated with greater psychological maladjustment [8-10].

Another distinction is between avoidance-oriented coping (ignoring or withdrawing from the stressor or associated feelings) and approach-oriented coping (directed towards dealing with either the problem or related emotions) [11,12]. Avoidant-coping styles are associated with personality characteristics and outcomes that are negative, whereas approach-oriented styles are linked to positive traits and results [13,14]. For example, Herman-Stabl, Stemmler & Petersen found that adolescents that used approach coping reported the fewest symptoms of depression, while avoidant copers reported the most [15]. A study conducted by Stewart et al. showed that people who used avoidant coping strategies had higher rates of depression and anxiety, while those who used active coping strategies and positive reanalysing had lower depression and

anxiety [16]. Furthermore, it has been suggested that problem solving does play role in adaptive responses to stress and self-appraised ineffective problem-solving ability may play a causal role in predicting future depressive symptoms and results in psychological maladjustment [17-20].

Whether a particular type of coping strategy is more or less effective may depend on the controllability of the stress factor [21-23]. Forsythe and Compas state that when it comes to controllable stressors, active coping or problem-focused coping may be useful, while active coping may be less helpful when an uncontrollable stress factor occurs [22]. Even though most stress factors can evoke both coping styles, the problem-focused coping strategy can appear when people think that something helpful can be done, while the emotion-focused coping strategy can appear when people think that the stress factor is something to endure [8].

Gender differences have been found in coping strategies: Men use more frequently the problem-focused strategies and women the emotion-focused strategies [8,24]. Concerning the level of education, it seems that it does not affect the coping strategies [24-26].

As far as the age concerns, controversies exist concerning its influence on the stress and coping process [27]. Folkman & Lazarus agree that there are not significant differences in coping strategies associated on age [8,28]. Most studies have shown that older adults differ little from younger adults in their approaches to coping with stress [29]. Aldwin, Sutton, Chiara & Spiro examined middle-aged, young-old, and old-old men and found that nearly a quarter of the old-old reported having had no problems and they expended less coping effort even when they did have problems [27]. The types of problems reported varied systematically with age. Middle-aged men were more likely to appraise their problems both as challenges and as annoyances than the older men. However, there were no age differences in perceived stressfulness of the problem or coping efficacy [27]. Similarly, Whitty found no differences between age groups in the effectiveness of coping strategies people employ [30]. In another relevant study (Aldwin, 1991) there was found a negative relationship between age and the reported use of escapist coping strategies [29].

Constantinos Togas, Foteini Mavrogiorgi, George Alexias

Examining the relationship between coping strategies, perceived social support and mental health in psychosocial and environmental problems

Previous research has consistently identified factors that differentiate between coping with or without the aid of social support. These findings suggest it may be more meaningful to distinguish between “socially supported” and “self-sufficient” coping styles rather than whether the corresponding strategies are directed towards managing either problems or emotions [31].

The concept of social support originates from clinical and therapeutic practice and is defined as the objectively available network of connections that provides a sense of intrapersonal relationships, approval and safeness, and the possibility of acquiring different types of assistance in a difficult situation [32]. Albrecht and Adelman define social support as the verbal and non-verbal communication that decreases the uncertainty about the state of the person or relationship and aims at improving the perception of personal control in life [33]. The main characteristics of social support are communication, reduction of uncertainty and improved control. Social support that an individual receives from others is recognized as a prognostic factor for health and well-being [34].

It can be described by analyzing two of the most important dimensions of it (structural and functional support) [35]. Structural support refers to five characteristics: social network size, coherence and homogeneity, density, frequency of interaction and availability of contacts. The size of social network can be understood as the objectively available number of individuals that can provide support and a sense of bonding. Coherence and homogeneity of support can be seen in the demographic and social similarity but in the common experiences of people, as well. Density of relationships is the level of mutual reliance between partners who interact. Frequency of contacts is described by the ratio of the number of contacts per unit time. Support availability is the number and ease of creating relationships [35]. Functional support is the kind of interaction or its consequences that has to do with the exchange of psychological or instrumental benefits. It can be categorized into emotional support, practical support and social inclusion [36].

Social support, along with other factors (e.g. socioeconomic status, mental health, stress and personality), has an important impact on health [34]. Schaefer, Coyne and Lazarus referred

to five types of social support: emotional, esteem, network, information and tangible support [37]. Similarly, Cohen et al. referred to three main types of social support: emotional, informational and tangible-instrumental support [34].

Wills and Shinar dichotomized social support as perceived and received social support as such that is considered to be available in relation to what is actually available [38]. Perceived social support refers to people's beliefs about the level and quality of support available to them. It is considered that the perception of social support is very important because it shows how a person thinks of the support he has at his disposal and whether it can be requested when necessary [39].

The perception that emotional support is available seems to have a much stronger impact on mental health than actual social support. Cohen and Wills found that perceived social support is more important than actual social support, as far as health behaviors are concerned. If the support resources are not perceived by an individual, the person cannot make practical use of them [40]. These conclusions are supported by studies that found perceived social support to have a greater impact than actual social support on health and well-being [41,42].

Many studies have showed that adequate social support is associated with the reported severity of the psychological and physical symptoms of a person and plays a preventive role between symptoms and stressors [43-45].

According to World Health Organization (WHO) mental health is a constituent part of health and is directly linked to physical health and behavior. Moreover, mental health is more than the absence of mental illness. WHO has recently defined it as “a state of well-being in which the individual realizes his / her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his / her community” [46].

Several demographic data have been found to affect mental health and predict mental problems. In general, women are more likely to experience anxiety disorders and depression than men. Furthermore, women with no social support, who are exposed to life events, are more vulnerable than men without support [47]. The level of education seems to effect mental

health, i.e. in North America, anxiety and depressive disorders are about twice as common in low-education groups relative to high-education groups [48]. With regard to age, there are conflicting results about the relationship between age and depression [49]. Some investigators reported a negative linear relationship between age and depressive symptoms [50]. However, other investigators concluded that depressive symptoms increase with age [51]. It has also been suggested that the relationship between age and depression is U-shaped, that is depressive symptoms decline from young adulthood to midlife and then begin to rise again with increasing age [52].

Although coping strategies have been examined in many studies, the investigation of the association between coping strategies, perceived social support and mental health in psychosocial and environmental problems is a relatively neglected area of research. This study linked these three variables together by testing their intercorrelations, taking into account the reported psychosocial problem. According to the authors' knowledge, this is one of the few studies that investigates this topic. The aim of this study was to examine the association between coping strategies, perceived social support and mental health in psychosocial and environmental problems. Based on the theoretical principles of coping theory, it was hypothesized that: 1) the Problem Solving strategy is positively associated with mental health (as it is evaluated with the GHQ-28) (Hypothesis 1), 2) perceived social support is positively associated with the Seeking Social Support coping strategy (Hypothesis 2), 3) the Avoidance coping strategy are positively associated with the mental health symptoms (Hypothesis 3), 4) perceived social support is negatively associated with mental health symptoms (Hypothesis 4).

Methods

A cross-sectional study was conducted with a sample of 482 individuals (n=482) of Greece's general population from all over the country. The procedure of the distribution of the questionnaires lasted four months (November 2017– February 2018). According to the selection criteria the sample included men and women aged 18 - 75 years old with a sufficient mental level that they could perceive the questions of the psychometric tools. Individuals with diagnosed mental health problems were excluded from the sample. The basic variables were the coping

strategies, the perceived social support and the mental health.

A brief description of the purpose of the study was given to all participants along with instructions for the questionnaire. They had the chance to ask for further clarifications concerning the questions. All participants took part on a voluntary basis and were not remunerated for their participation. Once participants provided consent, they received the questionnaires, which they completed anonymously and individually. They were also informed that they could stop completing the questionnaire at any time if they wished and that their decision to withdraw would not imply any negative consequence for them.

A composite questionnaire was used, including demographic information, the Coping Strategy Indicator, the Multidimensional Scale of Perceived Social Support (MSPSS) and the General Health Questionnaire-28 [53-55]. All these three questionnaires have been translated and culturally adapted for the Greek population by several scholars.

Participants

The mean age of the participants was 38.67 years (M_{age} = 38.67, SD = 13.20, Min = 18, Max = 71, Range=53) and the mean number of their family members was 3.65 (M =3.65, SD= 1.20, Min = 1, Max =8, Range=7). The rest demographic characteristics of the sample and type of stressor are presented in Table 1.

Table 1. Demographic characteristics of the sample and type of stressor

	Frequency	Percentage(%)
Gender		
Men	178	36,9 %
Women	304	63,1 %
Age group		
≤25 years	110	23.0 %
26-35 years	101	21.1 %
36-45 years	97	20.3 %
46-55 years	126	26.3 %

>55 years	45	9.4 %
Household income		
<15.000 €	193	40.6
15.000-24.999 €	143	30.1 %
25.000-34.999 €		20.4 %
35.000-44.999 €	25	5.3 %
45.000-60.000 €	11	2.3 %
>60.000 €	6	1.3 %
Level of education		
Illiterate –Primary school	21	4.4 %
Secondary school	18	3.8 %
Lyceum	132	27.5 %
Higher education (students or graduates)	308	64,2 %
Occupation		
Student	66	13.8 %
Unemployed	39	8.1 %
Private employee	114	23.8 %
Civil Servant	146	30.4 %
Businessman-Farmer	69	14.4 %
Pensioner	22	4.6 %
Housewife	17	3.5 %
Type of stressor		
Problems with primary support group	137	28.4 %
Problems related to the social environment	71	14.7 %
Educational problems	14	2.9 %
Occupational problems	97	20.1 %
Housing problems	3	0.6 %

Economic problems	59	12.2 %
Problems with access to healthcare	0	0 %
Problems related to interaction with the legal system/crime	3	0.6 %
Health problem of the respondent	74	15.4 %
Mental health problem of the respondent	22	4.6 %
Other psychosocial and environmental problems	2	0.4 %

Measures

Coping Strategy Indicator (CSI)

CSI is the only coping questionnaire that was wholly empirically derived. It first requests demographic information and then asks the participants to describe a recent (within the previous six months) stressful event. It consists of 33 items divided in three scales: 1) Problem Solving (i.e. "Rearranged things around you so that your problem had the best chance of being resolved"), 2) Seeking Social Support (i.e. "Let your feelings out to a friend") and 3) Avoidance (i.e. "Tried to distract yourself from the problem"). Responses are indicated by means of a three point scale: a lot (3), a little (2), or not at all (1). There is a total score for each scale and the higher score indicates greater use of the corresponding coping strategy [53].

The questionnaire has been translated into many languages (Spanish, French, Chinese, Korean, Czech etc) and some studies support a clear three-dimensional structure similar to the original validation [56-58]. However, another study by Ager and MacLachlan proposed a four-factor model involving the bipartition of the Avoidance factor (Avoidance-Withdrawal, Avoidance-Distraction) [59]. This division was also evident in the original validation but was rejected [53].

The CSI is psychometrically superior to other coping questionnaires and its psychometric properties are satisfactory [60]. The Greek version of the instrument consists of 31 items divided in four scales (Problem Solving, Seeking Social Support, Avoidance-Distraction, Avoidance-Withdrawal) and has satis-

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factory psychometric properties [61]. Avoidance-Withdrawal scale consists of items referring to isolation, wishful thinking or daydreaming. In this study this version was used and Cronbach's α ranged from .632 to .948 for all four CSI scales (Problem Solving=.948, Seeking Social Support=.902, Avoidance-Distracton=.723, Avoidance-Withdrawal=.632).

In the original validation the reported problems were grouped in four categories (work/school related, interpersonal, personal change, fate events) but in the Greek adaptation they were grouped according to DSM-IV-TR classification (AXIS IV "Psychosocial and Environmental Problems") [62]. In this study two more categories (health problem of the respondent-mental health problem of the respondent) were added in this classification in order to represent more accurately the reported problems.

Multidimensional Scale of Perceived Social Support (MSPSS)

It consists of 12 items and measures perceptions of support from 3 sources: Family, i.e. "My family really tries to help me", Friends, i.e. "My friends really try to help me" and Significant Other, i.e. "There is a special person who is around when I am in need" [54]. A seven-point Likert scale is used for the rating and the total score is the sum of all items divided by 12. The higher score indicates greater level of perceived social support. There is also a mean score for each subscale.

The questionnaire has been translated into many languages and has been shown to have good to excellent psychometric properties [54,63]. In this study, the Greek translation of MSPSS was used and Cronbach's α was equal to .915 [65].

General Health Questionnaire-28 (GHQ-28)

It is used to detect possible psychological disorder [55]. It is not designed to detect chronic mental health conditions. It consists of 28 questions divided in four subscales: Somatic symptoms (i.e. "Have you recently been feeling perfectly well and in good health?"), Anxiety/insomnia (i.e. "Have you recently lost much sleep over worry?"), Social dysfunction (i.e. "Have you recently been managing to keep yourself busy and occupied?"), Severe depression (i.e. "Have you recently felt that life is entirely hopeless?"). The

total score ranges from 0 to 84 and higher scores indicate a greater possibility of psychological distress (Goldberg & Hillier, 1979). There is also a score for every subscale. The GHQ-28 has high test-retest reliability and construct validity [66]. In the present study the Greek version of the questionnaire was used and Cronbach's α was equal to .911 [67].

Data analysis

The statistical program SPSS 21.0 was used for the analysis of data. The analysis included at first the descriptive statistics. Statistically significant differences between two variables were checked by t-test for independent samples, while statistically significant differences between more groups were checked by ANOVA. Pearson's correlation coefficient (r) was used for the investigation of linear correlation among quantitative variables. The statistical significance (p -value) was set to 5%.

Results

At first, two of the authors of this study worked independently and grouped the reported problems in these categories. Finally, the degree of their agreement was examined by Kappa coefficient. Its value was equal to 0.911 ($p < 0.001$) indicating high agreement.

Men reported more frequently problems with primary support group (25.8%), occupational problems (20.8%), economic problems (17.4%), health problems (15.2%) and problems related to the social environment (11.2%) etc. On the other hand, women reported more frequently problems with primary support group (29.9%), occupational problems (19.7%), problems related to the social environment (16.8%), health problems (15.5%) and economic problems (9.2%).

Descriptive Statistics for the CSI, MSPSS and GHQ-28 are presented in table 2.

Table 2. Descriptive Statistics for the Coping Strategy Indicator, Multidimensional Scale of Perceived Social Support (MSPSS) and General Health Questionnaire-28 (GHQ-28)

	Mean	SD	Minimum	Maximum	Range
Coping Strategy Indicator					
Problem Solving scale	23.60	7.37	11	33	22
SeekingSocialSupportscale	23.33	6.15	11	33	22
AvoidanceDistractionscale	9.82	2.81	5	15	10
AvoidanceWithdrawalscale	8.45	2.23	4	12	8
Multidimensional Scale of Perceived Social Support (MSPSS)					
Total score	67.79	11.61	18	84	66
"Family" subscale	5.69	1.23	1	7	6
"Friends" subscale	5.34	1.24	1	7	6
"SignificantOther" subscale	5.91	1.09	1.25	7	5.75
General Health Questionnaire-28 (GHQ-28)					
Total score	23.71	12.71	0	80	80
"Somaticsymptoms" subscale	6.51	4.28	0	21	21
"Anxiety/insomnia" subscale	7.68	4.64	0	21	21
"Socialdysfunction" subscale	6.86	3.19	0	20	20
"Severedepression" subscale	2.79	3.76	0	21	21

Table 3 and 4 present the scores of CSI and GHQ-28 questionnaires in relation to gender, age group, level of education and type of stressor.

Table 3. Scoring of CSI scales in relation to gender, age group, level of education and type of stressor.

	n	Problem Solving	Seeking Social Support	Avoidance-Distraction	t
Gender					
Men	178	23.91	22.88	9.62	8.43
Women	304	23.42	23.59	9.94	8.47
p		NS	NS	NS	NS
Age group					
≤25 years	110	23.24	24.27	9.89	7.97
26-35 years	101	25.38	24.55	9.54	8.89
36-45 years	97	23.23	22.89	10	8.86
46-55 years	126	23.19	22.04	10.02	8.30
>55 years	45	23.16	23.00	9.24	8.36

p		NS	0.015	NS	0.012
Level of education					
Illiterate –Primary school	21	25.16	22.50	8.48	8.40
Secondary school	18	25.19	20.89	8.72	8.76
Lyceum	132	23.45	23.38	9.76	8.39
Higher education (students or graduates)	308	23.48	23.51	10.04	8.47
p		NS	NS	NS	NS
Type of stressor					
Problems with primary support group	137	23.57	23.23	9.86	8.65
Problems related to the social environment	71	24.22	24.26	9.96	8.22
Educational problems	14	18.79	21.71	11.46	8.14
Occupational problems	97	22.95	22.78	9.93	8.27
Housing problems	3	17.50	25.00	15.00	10.00
Economic problems	59	23.87	23.51	9.69	8.43
Problems with access to health care	0	0	0	0	0
Problems related to interaction with the legal system/crime	3	19.33	22.00	10.33	7.0
Health problem of the Respondent	74	24.97	23.46	9.15	8.59
Mental health problem of the Respondent	22	24.67	24.19	9.64	8.91
Other psychosocial and environmental problems	2	14.50	16.50	13.00	6.00
p		NS	NS	NS	NS

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Note: NS=No significant

As for the CSI scales, the results were:

The effect of *age group* was found to be statistically significant in Seeking Social Support ($F_{4,462}=3.112, p=0.015$) and in Avoidance-Withdrawal ($F_{4,467}=3.265, p=0.012$) scales. Participants who were 26-35 years old had significantly higher score than participants who were 46-55 years old in Seeking Social Support. Moreover participants who were ≤ 25 years old had significantly lower score than participants who were 26-35 years old and 36-45 years old in Avoidance-withdrawal scale.

Table 4. Scoring of GHQ-28 in relation to gender, age group, level of education and type of stressor.

	n	Totalscore	Somaticsymptoms	Anxiety/insomnia	Social dysfunction	Severedepression
Gender						
Men	178	22.47	5.78	6.95	6.98	2.85
Women	304	24.46	6.94	8.12	6.80	2.75
p		NS	0.004	0.008	NS	NS
Age group						
≤ 25 years	110	27.08	7.03	8.96	7.05	3.96
26-35 years	101	21.71	6.17	6.94	6.51	2.04
36-45 years	97	22.95	6.64	7.65	6.86	2.30
46-55 years	126	23.39	6.48	7.42	6.79	2.79
>55 years	45	22.05	5.76	7.09	7.30	2.36
p		0.021	NS	0.016	NS	0.001
Level of education						
Illiterate –Primary school	21	30.35	8.43	10.10	7.29	4.48
Secondary school	18	23.53	5.18	7.11	6.61	4.33
Lyceum	132	25.37	7.18	8.64	6.54	3.09
Higher education (students Or graduates)	308	22.59	6.15	7.14	6.99	2.46
p		0.018	NS	0.001	NS	NS
Type of stressor						
Problems with primary support group	137	24.04	6.62	7.53	6.96	2.95
Problems related to the social environment	71	21.49	6.11	7.03	6.66	2.00
Educational problems	14	24.92	4.86	8.31	7.79	4.14
Occupational problems	97	23.43	6.74	7.40	6.85	2.57
Housing problems	3	19.67	5.67	7.33	5.67	1.00
Economic problems	59	21.46	5.84	7.98	7.05	2.33
Problems with access to health care	0	0	0	0	0	0
Problems related to interaction with the legal system/crime	3	24.67	7.33	7.67	8.00	1.67
Health problem of the Respondent	74	24.47	6.84	7.72	7.15	2.77

There were not found significant differences between the type of stressors in the CSI scales score. It seems that type of stressor does not affect the selection and use of a certain coping strategy and people use a certain coping strategy regardless of the problem that they have to cope with.

Concerning the GHQ-28, the following significant results were found:

The effect of *gender* was found to be statistically significant in Somatic symptoms ($t=-2.875, df=476, p=0.004$) and in Anxiety/Insomnia ($t=-2.667, df=474, p=0.007$) subscales. Women had significantly higher score than men in these subscales.

The effect of *age group* was found to be statistically significant in total score or GHQ-28 ($F_{4, 462}=2.907, p=0.021$) and in Severe Depression ($F_{4, 474}=4.512, p=0.001$) and Anxiety/Insomnia ($F_{4, 468}=3.092, p=0.016$) subscales. Participants who were ≤ 25 years old had significantly higher score in GHQ-28 and in Anxiety/Insomnia subscale than participants who were 26-35 years old. Moreover participants who were ≤ 25 years old had significantly higher score in Severe Depression subscale than participants who were 26-35 and 36-45 years old.

The effect of *level of education* was found to be statistically significant in total score of GHQ-28 ($F_{3, 464}=3.382, p=0.018$) and in Anxiety/Insomnia subscale ($F_{3, 470}=5.277, p=0.001$). Participants who were illiterate or graduates of primary school had significantly higher score in GHQ-28 and in Anxiety/Insomnia subscale than participants who were students or graduates of higher education.

The effect of *type of stressor* was found to be statistically significant in severe depression subscale score ($F_{9, 472}=2.603, p=0.006$). Participants who reported mental health problems had significantly higher score in this subscale than participants who reported problems with primary support group, problems related to the social environment, occupational problems, economic problems and health problems.

Age was correlated significantly only with one of the CSI scales (Seeking Social Support, $r=-.129, p<0.05$) and with anxiety ($r=-.091, p<0.05$) and depression ($r=-.094, p<0.05$) subscales

of the GHQ-28. Positive significant correlations were observed between Avoidance-Withdrawal scale and GHQ-28 (and somatic symptoms, anxiety/insomnia and social dysfunction subscales). There was also a positive significant correlation between Seeking Social Support Scale and Friends and Significant Other subscales of the MSPSS. In Table 5 are presented the correlations between the CSI scales and MSPSS and GHQ-28. MSPSS total score was negatively correlated with GHQ-28 score. There were also significant negative correlations between all MSPSS subscales with all GHQ-28 subscales. These correlations are presented in table 6.

Table 5. Correlations between the CSI scales and MSPSS and GHQ-28.

	CSI			
	Problem Solving	Seeking Social Support	Avoidance Distraction	Avoidance Withdrawal
Multidimensional Scale of Perceived Social Support (MSPSS)				
Total score	-.031	.042	.027	-.013
"Friends" subscale	-.030	.092*	-.018	-.020
"Family" subscale	-.076	-.075	.052	-.049
"Significant Other" subscale	.035	.095*	.013	.029
General Health Questionnaire-28 (GHQ-28)				
Total score	.015	.032	-.026	.117*
"Somatic symptoms" subscale	.019	.008	-.065	.102*
"Anxiety/insomnia" subscale	.031	.027	-.022	.108*
"Social dysfunction" subscale	.000	.053	.015	.097*
"Severe depression" subscale	-.020	.009	.030	.055

Note: * $p<0.05$, ** <0.01

Table 6. Correlations between MSPSS and GHQ-28.

	GHQ-28

	Total score	Somatic symptoms	Anxiety/insomnia	Social dysfunction	Severe depression
Multidimensional Scale of Perceived Social Support (MSPSS)					
Total score	-,283**	-,181**	-,195**	-,173**	-,339**
"Friends"	-,236**	-,159**	-,186**	-,138**	-,280**
"Family"	-,230**	-,148**	-,152**	-,142**	-,269**
"SignificantOther"	-,245**	-,142**	-,161**	-,134**	-,311**

Note: **<0.01

Discussion

This study was conducted in order to evaluate the relationship between coping strategies, perceived social support and mental health in psychosocial and environmental problems. The basic result was that Avoidance-Withdrawal coping strategy (i.e. isolation, wishful thinking, daydreaming) is positively correlated to mental health problems in general population. The results reveal that individuals who use this coping strategy in order to cope with stressors present poor mental health and have mental health problems (especially anxiety/insomnia and somatic symptoms) and social dysfunction. But no significant correlation was found between the Avoidance-Distraction and mental health problems. Furthermore, no significant correlation was found between avoidance-distraction and avoidance-withdrawal strategies and depression, contrary to the results of another study, in which avoidant copers reported the most symptoms of depression [15]. These findings are consistent with the results of other studies, in which was found that avoidant-coping styles are associated with outcomes that are negative and partially confirm the hypothesis 3 that Avoidance coping strategy is negatively associated with mental health [13,14].

Perceived social support was negatively correlated with mental health problems. This result confirms Hypotheses 4 and is consistent with previous relative studies, which have demonstrated that low social support is one of the predictors of psychological prob-

lems and is associated with depression, anxiety, social problems and somatic complaints and adequate social support plays a preventive role between symptoms and stressors [43-45].

Although problem solving has been found to play role in adaptive responses to stress and is negatively associated with depression, in this study the Problem Solving strategy was not significantly correlated with mental health and Hypothesis 1 was not confirmed [17, 18]. A similar result was found by Togas & Alexias [61].

There were not found significant differences between the type of stressors in all CSI scales score. It seems that the type of stressor does not affect the selection and use of a certain coping strategy. That is, people use a certain coping strategy regardless of the problem that they have to cope with. Similar results were found by Togas & Alexias [61]. In the original validation of the CSI, the type of stressor was examined as a dependent variable and only sex influenced the reporting stressor, men mentioning more work-related and women more interpersonal problems [53].

Contrary to previous research data, there were not found significant differences between men and women in coping strategies in this study [8,24]. Age correlated significantly only with Seeking Social Support coping strategy. In contrast to these findings, a positive correlation between age and Problem Solving scale and a negative one between age and Avoidance-Distraction scale was found by Togas & Alexias [61]. A significant negative correlation between age and Seeking Social Support was found in other studies, too [59,61]. On the other side, age had no effect in other studies or a very limited effect in a Flemish sample [8,28,30,53,58]. Moreover, in this study there was not significant correlation between age and avoidance coping strategies, as it was found by Aldwin [29].

Although most studies have shown that older adults differ little from younger adults in their approaches to coping with stress, in this study the effect of age group was found to be statistically significant in Seeking Social Support and Avoidance-withdrawal coping strategies [29]. Younger participants used more frequently seeking social support and less frequently Avoidance-withdrawal strategy than older adult participants. Similarly, younger partic-

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ipants presented more mental health problems (Severe Depression, Anxiety/Insomnia etc.) than older adult participants (26-35 and 36-45 years old). However, different results are reported by Aldwin, Sutton, Chiara & Spiro, who found that there are no age differences in perceived stressfulness of the problem or coping efficacy [27]. There were not significant differences in coping strategies associated with the level of education of the respondents and this finding coincides with previous research data [24].

There was also a positive correlation between Seeking Social Support and Friends and Significant Other subscales of the MSPSS. That is, perceived social support from friends and significant other persons is associated with seeking social support as a way of coping with different stressors. Consequently, Hypothesis 2 was partially confirmed. A similar correlation is reported by Togas & Alexias, too [61]. Similar results were found by Zabalegui, Cabre- ra, Navarro & Cebria, who found a significant positive correlation between perceived social support and seeking and using social support in advanced cancer patients [68].

In this study men reported more frequently problems with primary support group and occupational and economic problems and women problems with primary support group and occupational problems and problems related to the social environment. In the same way, men reported more work-related and women more interpersonal problems in the original validation of the Coping Strategy Indicator [53].

Concerning the GHQ-28, the effect of type of stressor was found to be statistically significant in severe depression and participants who reported mental health problems had significantly higher score than participants who reported problems with primary support group, problems related to the social environment, occupational problems, economic problems and health problems.

Women had significantly higher score than men in the somatic symptoms and in Anxiety/Insomnia (but not in depression and social dysfunction). This finding is partially consistent with the data presented by other scholars (i.e. Afifi) who report that women are more likely to experience anxiety disorders and depression than men [47]. The effect of level of education was found to be statistically significant in total score of GHQ-28 and in Anxiety/Insom-

nia subscale and participants who were illiterate or graduates of primary school had significantly higher score than participants who were students or graduates of higher education. Consistently with the findings of other studies, participants who were illiterate or graduates of primary school had significantly higher score in GHQ-28 and in Anxiety/Insomnia subscale than participants who were students or graduates of higher education. But no differences were found in depression [48].

There was a significant negative correlation between age and anxiety and depression subscales of the GHQ-28. In addition, younger participants (≤ 25 years old) had significantly higher score in these subscales than older adult participants. Similar findings were found by Lawton, Kleban & Dean, who reported a negative linear relationship between age and depressive symptoms [50].

In conclusion, the present study showed that avoidance-withdrawal coping strategy and low perceived social support are predictors of psychological problems and are associated with anxiety/insomnia, social dysfunction, somatic symptoms and depression in general population. Furthermore, there are differences in coping strategies associated with age, age group, gender and in mental health problems associated with age group, gender, educational level and type of stressor.

The advantages of this study include the examination of an original topic, that is, coping strategies in relationship to different psychosocial problems. In addition, the study had an adequate sample and participants completed standardized questionnaires with satisfactory psychometric properties. As for the limitations, it must be highlighted that this is a cross-sectional study, in which it is not possible to support causal relations and therefore the generalization of the derived conclusions requires special consideration. Another limitation is the great percentage of higher education participants (students or graduates) in the sample.

Regarding the extension of the research results in clinical application, the reduction of using avoidance-withdrawal coping strategy and the development of perceived social support from the family, the friends and the significant others can contribute to recession of mental health symptoms and to promote mental health and improve an individual's wellbeing. Therefore, it is easi-

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er for mental health professionals to identify the most vulnerable people and to implement various interventions, in order to promote one's mental health.

Future research is suggested, so that further investigation and clarification of the study's results is possible. Similar research can be conducted with different research designs (i.e. prospective studies) and with larger sample both from general and clinical populations.

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Special article

Professor Max Kassowitz (1842–1913) of the University of Vienna

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Abstract

Historical research allows the rectification of an undeserved historical neglect for scientists of international renown in their time. With new biographical details, the present article reconstructs the life and work of Professor Max Kassowitz, a key figure in pediatric medicine and neurology in turn-of-the-century Vienna. Kassowitz, an academic pediatrician of humble Jewish-Bohemian origins, left valuable contributions on congenital syphilis and the treatment of rickets and dental diseases in children. A child prodigy, he graduated from the University of Vienna at the age of 21. From 1881 until his retirement in 1906 he headed the Public Children's Institute, which he expanded by adding departments of diverse specialties. He assigned the neurology clinic to the young Sigmund Freud; from that period date the latter's landmark papers in pediatric neurology. Kassowitz published 250 papers and a dozen voluminous monographs on various biomedical themes, including osteogenesis, infectious diseases, and immunity. Older sources testify to his remarkable critical and diagnostic ability. Kassowitz considered the invigorating effects of alcohol one of the biggest errors of science; he and his wife Emilie were actively involved in the Anti-Alcohol Movement. During the last two decades of his life, he became immersed in issues of biological philosophy. On the basis of his scientific accomplishments, Max Kassowitz was a pioneer who merits recognition as having played a vital role in the advancement of medicine in Central Europe.

Keywords: Max Kassowitz, Sigmund Freud, History of Medicine, Pediatric Neurology, University of Vienna

Max Kassowitz (Fig. 1) was an influential figure in European academic pediatrics around the fin-de-siècle. He gained international reputation for his fundamental work on congenital syphilis, on the introduction of phosphorus to treat rickets, and for his effort to fight dental diseases in children. Yet, there is only a brief biographical note [2] in the modern biomedical literature, published in Hebrew. He was born on 14 August 1842 in Pressburg (today Bratislava, Slovakia), the eldest child, among four boys and two girls, of Ignaz Kassowitz (1818–1875), a Jewish-Bohemian tailor, and Katharina Kassowitz, née Pollak (1821–1878).

A valuable source of information on the family are the collected papers of Kassowitz's youngest daughter, Antonie Kassowitz-Stolper (1890–1988), a graduate of the Department of Philosophy of Friedrich Wilhelm University in Berlin [12]. During World War I, Antonie ('Toni') volunteered as an assistant nurse for the Red Cross at the First Surgical Clinic of the University of Vienna, headed by neurosurgeon Anton von Eiselsberg (1860–1939). With her husband, the respected author and publisher in economics Gustav Stolper (1888–1947), they fled Germany in July 1933, six months after Hitler's ascension to the Chancellery, and emigrated to the United States (1933–1975, 1983–1988) and Canada (1975–1983).

Max Kassowitz was a child prodigy. He graduated from the German Gymnasium with honors when he was 16 years old. He entered the University of Vienna, commuting by steamboat up the Danube, and completed his medical studies in 1863. His teachers included the anatomist Josef Hyrtl (1810–1894), pathologist Carl von Rokitsansky (1804–1878), dermatologist Josef von Škoda (1805–1881), and surgeon Józef Dietl (1804–1878). During his studies, Kassowitz earned his living as a stenographer in the Parliament under Anton von Schmerling (1805–1893).

For the following six years, Kassowitz worked as attending physician in various departments of the Vienna General Hospital. In 1869 he joined the Vienna Public Children's Institute, headed by Leopold Maximilian Politzer (1814–1888). Twelve years later, upon Politzer's retirement, Kassowitz became director of that hospital. Under his leadership, the Institute was expanded into a polyclinic to include departments of internal

medicine, surgery, dermatology, neurology, otorhinolaryngology, and ophthalmology, all staffed by young volunteer, unpaid physicians. The number of children visiting the hospital tripled, from 6,000 in 1886 to almost 18,000 by 1900.

The Department of Neurology was entrusted by Kassowitz to the young neurologist Sigmund Freud (1856–1939), who had just returned from his training in La Salpêtrière, Paris, under Jean-Martin Charcot (1825–1893). Freud worked at the Institute as consulting physician on two or three mornings a week through 1897. In that period, Freud published a series of important works on pediatric neurology, including 'On hemianopsia in early childhood' (1890), 'A clinical study on cerebral hemiplegia of children' (1891) coauthored with the pediatrician Oscar Rie (1863–1931), 'An account of the cerebral diplegias of childhood in connection with Little disease' (1893), 'On familial forms of cerebral diplegias' (1893), and the pediatric neurology classic, 'Infantile cerebral paralysis' (1897) [4]. In 1896 Freud was succeeded in his post by Emil Redlich (1866–1930). The Institute was disbanded in 1938, when Austria was annexed by the Third Reich.

In 1886 Kassowitz was appointed *Privatdocent* and in 1891 Associate Professor (Extraordinarius) of Pediatrics at the University of Vienna.

The scientific output of Kassowitz, between 1874 and 1914, comprises some 250 articles and a dozen monographs, virtually all single-authored [5, 11]. In 1890 he founded and edited a journal, *Beiträge zur Kinderheilkunde aus dem I. Öffentlichen Kinder-Krankeninstitute in Wien* ('Contributions to Pediatrics from the First Public Hospital for Children in Vienna').

Kassowitz wrote 75 papers on osteogenesis and rickets, syphilis, diphtheria and other infectious diseases, and serum immunization; 15 papers on dentition, tetanus, infantile myxedema, Down syndrome, and micromelia; 40 papers on alcohol and its abuse; 30 papers on general science, biology, and philosophy, covering topics such as vitalism and teleology, the crisis of Darwinism, free will and morality, and consciousness; and 12 papers on diverse popular themes for lay audiences.

In 1883 Kassowitz introduced a method for treating rickets

with phosphorus dissolved cod liver oil (rich in vitamin D), first in rabbits and then in children. He histologically examined rickets specimens in the Department of Pathology headed by Salomon Stricker (1834–1898) and described the inflammatory lesions of bones.

His monographs in pediatrics include 'Congenital syphilis' [6], 'Metabolism and immunity' [8], and '36 Lectures in Practical Pediatrics for Students and Physicians' [10]. Based on clinical observations, Kassowitz concluded that the transmission of syphilis to a fetus largely depends on the duration of the disease in the mother; according to the 'Kassowitz law', the longer the interval between infection and pregnancy, the more benign is the outcome in the infant [3].

The three-part 'Normal Osteogenesis and Diseases of the Bone System in Rickets and Congenital Syphilis' (Wilhelm Braumüller, Vienna, 1881, 1882, 1885), with 626 pages and 17 color plates, is considered a classic of pediatrics. His 'Lectures on the Diseases of Children during the Period of Dentition' (1882) were translated into Italian by Filippo Pagliari, Professor and Director of the Brefotrofo Provinciale di Roma, under the title *Lezioni sulle Malattie dei Bambini durante il Periodo della Dentizione* (Riforma Medica, Napoli, 1893).

In the last two decades of his life, Kassowitz became concerned with biological and philosophical problems. He authored a four-volume 'General Biology' [7] of nearly 1800 pages that covered (I) the formation and breakdown of the protoplasm; (II) heredity and development; (III) metabolism and energy exchange in the animal organism; and (IV) nerves and psyche. This was followed by the book 'World-Life-Psyche' [9], based on a series of popular science lectures on natural philosophy, intended for the general public (Fig. 2).

Kassowitz was a life member of the German Society for Children's Diseases and of the Russian Society for Children's Diseases in St. Petersburg. On the occasion of his 70th birthday in 1912, 30 physicians from Vienna, Budapest, Prague, Berlin, Düsseldorf and Basel compiled, under the auspices of the Pediatric Society of Vienna, a *Festschrift* to honor their mentor and colleague [5]. One of the chapters was contributed by Kas-

sowitz's eldest son, Karl Kassowitz (1886–1978), at the time volunteer assistant in the Kaiserin-Auguste-Victoria-Haus to fight infant mortality.

Max Kassowitz retired from practice in 1906. He died of pneumonia in Vienna on 22 June 1913, a year before the onset of World War I. His remains were interred at Döblinger Cemetery. In the announcement of his passing, *The Lancet* noted, "...he showed remarkable critical and diagnostic ability, so that he was appointed extraordinary professor when he had only been six years qualified...he wrote many valuable works and papers, not only on rickets, on which subject he was a great authority, but also on general biology, metabolism, and immunity" [1].

Kassowitz married Emilie, née Rosenthal (1854–1938) in 1876. The couple first met ten years earlier, when the young medical intern was called to treat her for cervical lymphadenitis [12]. The couple lived for 33 years at Steindlgasse 2, in a narrow lane in the building that housed the Children's Institute. Their three daughters, Julie, Anna and Antonie, and two sons, Karl and Ernst, were born and grew up there. Emilie belonged to a musical family. In 1903 she became a founding member of the 'Society of Abstinent Women', of which she also served as Vice President. Max and Emilie Kassowitz received numerous honors, including a Golden Cross of Merit, and became actively engaged in the Anti-Alcohol Movement. In a lecture before the Vienna Physiological Club in November 1898, Max Kassowitz claimed: "If I have helped to bring about the downfall of the dogma of the nourishing and invigorating properties of alcohol, which I must consider one of the most ill-fated errors of science, then I would see in it a sufficient reward for my efforts" [11].

Kassowitz's collected papers were posthumously published in a single volume [11], including a complete bibliography, at the initiative of his eldest daughter, the philosopher Julie Kassowitz-Schall (1882–1924).

Ethical approval

This article does not contain any studies with human participants or animals performed by any of the authors.

Conflict of interest

The authors declare that they have no conflict of interest.

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Captions for Figures

Figure 1 Max Kassowitz (1842–1913), Professor Extraordinarius of Pediatrics, University of Vienna. From a period postcard (author's archive). Copying, redistribution or retransmission without the authors' express written permission is prohibited.

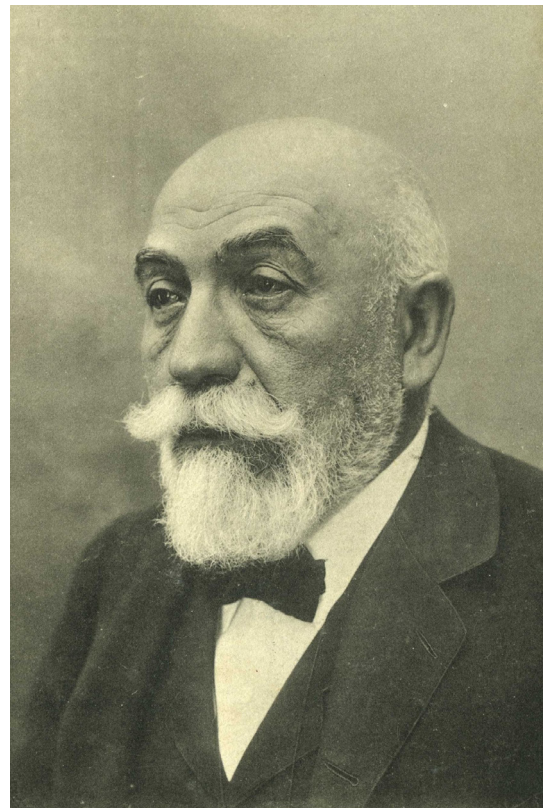
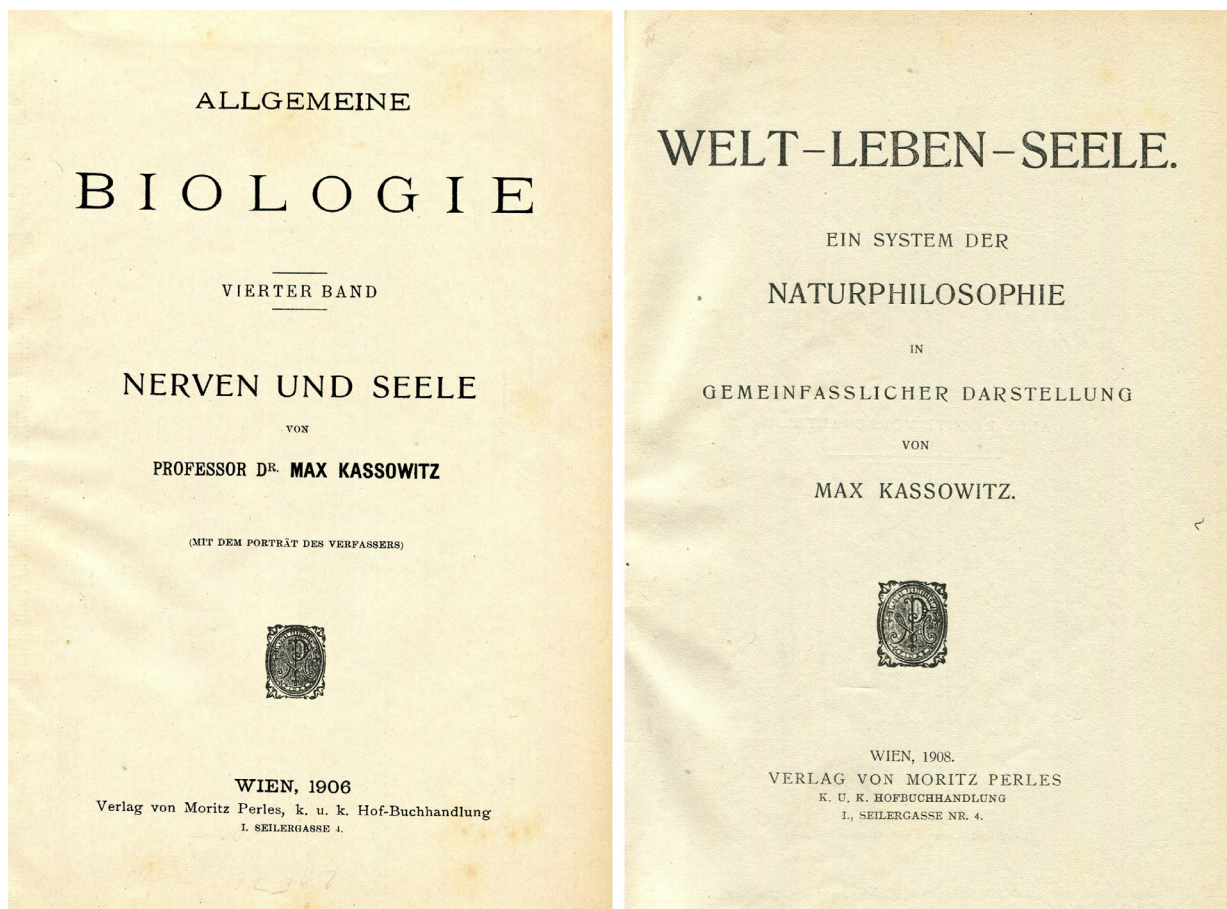


Figure 2 Title pages of the monographs Nerves and Soul [7] (fourth volume of 'General Biology', 1906) and World–Life–Soul [9] (A System of Natural Philosophy in a More Comprehensive Presentation, 1908) by Max Kassowitz (author's archive). Copying, redistribution or retransmission without the authors' express written permission is prohibited.



Special article

Empowering dialogues: the problems of service users, family members and carers' associations in Greece

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Abstract

The voice of people with mental health problems has historically been weak to express the demands for better care and end of abuse. In the effort to reform and improve mental health services in Greece, the lack of a social movement is often referred to as a central problem by experts. It is important to describe and study the problems that prevent mental health service users and their relatives from achieving their goals, contributing to the change that is clearly required and strengthening their word. A mixed methods study provides us insight to the basic problems of associations representing users and carers in Greece. These are: Available efficient space for meetings, service provision, administrative purposes, technical capacity, difficulty in clarifying and prioritizing purposes and goals, difficulty in engaging active members, and ambivalence towards the state and mental health professionals. We are interested at the qualitative characteristics of engagement and relationships between associations and other stakeholders. Proposals are made to further study and actions to strengthen the ability of clubs to achieve their goals and to promote reforms for better mental health care. A need to reconsider the attitudes and behaviors associations should foster towards a healthy democracy is emerging.

Key words: User Representation, engagement, ethnographic research method, organizational culture, institutional - group dynamics.

Introduction

The advances in research in neurosciences are phenomenal and the need for an open and constructive dialogue between clinical neuroscience and mental health is becoming more and more evident (1). Systematic research is mapping the neurobiology of disease and trying to identify brain regions, connections, circuits and biological functions as basis for possible explanation and treatment of mental illness (2). Understanding serious mental health disorders, especially schizophrenia, has been a long-standing challenge, generating constant dispute, but also showing links between neurosciences, psychology, cognitive studies, even psychoanalysis (3,4,5,6). But who is talking on behalf of the "mental health" field? Who is representing the patients? In research conducted in recent decades, 95% of the cases pertain to objectives and methodologies that are not close to patients' preferences and priorities. The literature is therefore flooded by and relevant resources are tied to research on the effectiveness of psychotropic drugs, as well as on the genetic factors of mental disease, while service users would prefer to know more about the effectiveness of psychotherapy or methods of self-help (7).

WHO and EU directives and guidelines for the organization of mental health services (8, 9, 10, 11) highlight the importance of developing and implementing policies and strategies to promote the active engagement and participation of users of services and their relatives in the mental health system. However, the voice of people with mental health problems has historically been weak in expressing the demands for better care, elimination of exclusion, abuse and violence. In the effort to reform and improve mental health services in Greece, the lack of a social movement that supports the philosophy of the psychiatric reform is often referred to as a central problem by experts with different professional and institutional roles in relation to the psychiatric field (12, 13). It is important to describe and study the problems that prevent mental health service users and their relatives from achieving their goals, so as to contribute to both the systemic change, that is clearly required, and maximising their representation. The literature review shows that, while there is some quantitative data on the level and form of representation of associations in different fields, there is a lack of information

concerning the regulations and the specific procedures followed by associations. Also, there is a need for evidence on the relationship between associations and other stakeholders and the qualitative characteristics of such engagements.

The Working Group for the Review of the Psychargos Program in 2011 held a focus group with vast institutional representation, aiming to record the problems and suggestions of service recipients and their relatives. The problems described are considered long term, unresolved, and are associated with problems reported in other European countries (14, 15). Our most recent study focuses on recording the challenges faced by service users, family members and carers' associations in Greece. Self report through questionnaires (16) reveals that the problems associations in Greece are facing are:

- Available efficient space for meetings, service provision, administrative purposes
- Trained staff (for secretarial support, drafting of proposals, communication - public relations)
- Equipment
- However research through focus groups (17) has also recorded the following problems:
 - Difficulty in clarifying and prioritizing purposes and goals
 - Serious difficulty in engaging active members
 - Ambivalence towards the state and mental health professionals

In all cases, the problems that associations are expressing are part of the general social, political and economical situation in Greece.

Problems regarding the wider context

First, problems regarding the public mental health service system: lack of coordination, low efficiency, and lack of accountability (18, 13). According to the latest national epidemiological research, only 32% of those with a common mental disorder report that they visited a specialist in the last year (19).

The already low efficiency of the social protection system has been further affected by the economical and social crisis. According to OECD (20), in Greece people lose 55% of their net income when they are newly unemployed, and up to 96% when they become long-term unemployed. The percentage of people unable to cover their medical needs financially reaches up to 11% (21). In this unstable and problematic context people representing mental health service users and their carers need to increase their actions and make their voices louder.

Purposes and goals

The forms of participation of users and their families are manifold:

Training of other users, family members or professionals, informing other users, family members, the general public and the mass media, self-help, support – provision of services, advocacy, evaluation of programmes and services, research. Two main areas of interest of all associations are providing self help and advocacy. Associations in Greece take all different kinds of initiatives. What is evaluated as most useful is self help for members: information about mental health disorders and treatment methods, support, social networks, sense of belonging. Focus group research showed that there is confusion between purposes, aims and goals, lack of prioritization and clarification.

The level of agreement between members on the purposes of the associations is a key factor of its organizational capacity. It is a predicting factor of an organization's ability to move from declaration of principles and 'pointing fingers' to taking action and filling the gap between needs and policies. Literature review suggests that there is no evidence of how associations manage this kind of change. As change we consider not only the desire to resolve problems, but also the practical use of experience, as well as the broadest possible incorporation of the available know-how. In addition, change is the minimization of the gap between the acquisition of new knowledge and its implementation, as described by Blisker et al. (22). A key factor in this is organizational readiness for change, as described by Weiner (23,24). In this particular field of research, we can trace an epistemological resemblance to the concept of readiness for individual psychosocial rehabilitation (25). Organizational readiness for change is assessed through the level of agree-

ment between the members of the organization regarding its purposes, and technical readiness (available financial, human and technological resources). It's described as a commonly accepted psychological state in which the members of the organization feel committed to implementing an organizational change and are confident that they collectively have the skills required for it (24). There are tools for the quantitative measurement of organizational readiness in health (26), which have been used in research regarding hospital management. An ethnographical research in Greek associations will shed light on the levels of agreement between members and on possible institutional resistances to such change. It can also help us understand group dynamics inside and between associations and power relations. The ethnographic method allows us to place a strong emphasis on exploring the nature of a particular social phenomenon, rather than setting out to test hypotheses regarding it (27, 28).

Technical capacity

All associations participating in the study, regardless of the number of years of operation or the number of projects and actions that they have implemented, report difficulties concerning human and economical resources. More specifically, there're no available venues for administrative purposes, meetings or activities. Required equipment (computers, copy machines etc) is also lacking. Associations that have available spaces that are provided by other agencies would prefer other places, where there could be more autonomous. Regarding human resources, there is lack of trained personnel that would perform necessary tasks, such as secretariat, fund raising or communication.

Level and quality of representation

The World Health Organisation (29, 30) provides data regarding the extent of user and family involvement and representation (on the basis of whether there is representation or guidelines) in committees relevant to the services (in planning, implementation, review) and relevant to actions (in stigma, prevention, promotion of mental health). In the countries where they exist, family associations participate in the formulation and implementation of legislation in 34 % of cases on a regular basis, in 50

% on a non-regular basis and in 16 % never or rarely.

For the establishment or operation of associations, there is regular government funding in 15 out of the 42 countries. Of the EU15 countries, government support is not provided in Finland, Italy, Greece and Sweden. Users participate in committees related to the planning of services in 20 of the 42 countries (47.6 %), as do families. In committees for the implementation of plans related to the services, there is user participation in 15 countries and family participation in 18 of the 42 (35.7 %). For review of policies, participation in committees exists in 17 countries for users and 17 for families, out of the 42 (40.4 %). In committees related to actions (stigma, prevention, promotion) there are 12 countries, Greece included, where there is no participation at all. Namely, users and families are not represented at any action implementation level for mental health (planning, application, review). In Greece, service users are represented in the Special Committee of the Ministry of Health for the protection of rights of people with mental health problems following the Mental Health Law of 1992 (Law 2716). In 2017 the new law (n.4461) for the administrative reform of the mental health services supported the participation of user representatives at local level in the Sector Committees and local bodies for rights protection. However, actual representation is not ensured, either because in some Greek areas there are no willing representatives or because the procedure for the selection of representatives by the state is not transparent. This is obviously associated with the resistances, or rather the paternalistic stances, imposed by mental health professionals, especially psychiatrists, during the reform of the psychiatric services and model (13, 16).

The aforementioned WHO study for Europe does not inform about the quality of involvement. Representation may mean anything from a simple presence to participation in the decision-making. The actions and services to which we refer differ to a great extent between and within countries. From the comparative study of the data, W.H.O. arrives at a series of conclusions.

The extent of representation and support is consistent with the available resources as well as each country's model of services. If there is involvement in an area, there is increased possibility of similar involvement in more areas of action. Users and

families are represented and supported equally. The WHO concludes that what is missing are regulations, specific procedures, study of the involvement and relationship characteristics between associations and other involved bodies.

Members' engagement

Associations of users in Greece exist since 1984, while the first families' association formed in 1999. They consist of 130 members on average. However, civil society in Greece is considered "cachectic, atrophic or fragile" (31). Only 4% of respondents in a world scale survey said that they have volunteered (32), bringing Greece in the last position among 135 countries. In a 2008 European Social Survey, 59.8% of Greek participants claimed that «we must be careful» in relation to trust in others, where the average was 38.8%. Associations seem to be ambivalent and in a confusing relationship with the state, and with family and political parties as institutions (33). All these concern a state that, as described (34), follows an ineffective, irrational and morally unacceptable mode of operation of its institutions. This situation in Greece must be considered as a part of the European context, which is characterised by a deficit of democracy and furthers social inequalities.

The role and support of carers

Even though in recent years there is capacity building training available for NGOs through associations like HIGGS or Social Dynamo, there is still lack of adequately trained association members that would help in the development of their associations. Such training could involve skills in leadership, project management, group dynamics, etc. Furthermore, 93% of carers report they do not receive care themselves (35). A recent study by COFACE Families Europe on the challenges and needs of family carers in Europe with 1160 participants reports: 80% of care work in Europe falls on family members, who are left without adequate financial compensation, social support, or a pension scheme. Family carers face significant challenges when it comes to reconciling their professional and personal life, accessing community-based services, and also concerning their financial situation, health, administrative procedures, and social recognition. It is especially concerning that 73% of the respondents do not receive any fi-

nancial compensation for their work, as carers, and almost 2/3 of them don't have access to any kind of social benefits (36). Family carers are Europe's invisible workforce representing one of the most silenced, socially excluded groups. Furthermore, poverty is a big threat for carers: 1 in every 3 respondents stated that they had difficulties to make ends meet as a consequence of their caring role. Since there are often no flexible time arrangements in place at work, many family carers faced challenges in reconciling work with care, and had to leave their job or reduce their working hours. In Greece, 96.5% admit that the economic crisis has created insurmountable difficulties for families with a disabled person (37).

Discussion

Undeniably, there is a need for further data that will help us understand the dynamics of the organizations representing users. Data should be provided in a way that association members would be able to use them as feedback for the improvement of their actions and management of required change. Establishing procedures and respecting institutional rules are essential steps towards ensuring the viability of the organizations. In this framework, the example of the Alcoholic Anonymous is useful. They started in 1935 by two people. In 1939, the first teams had 100 members in 2 cities. By 2007, it's estimated that 2 million members participate in more than one hundred thousand teams all over the world. In the beginning there was a challenge: "Our Society then entered a fearsome and exciting adolescent period. The test that it faced was this: Could these large numbers of erstwhile erratic alcoholics successfully meet and work together? Would there be quarrels over membership, leadership, and money? Would there be strivings for power and prestige? Would there be schisms which would split A.A. apart? Soon A.A. was beset by these very problems on every side and in every group. But from this frightening and at first disrupting experience the conviction grew that A.A.'s had to stick together or die separately. We had to unify our Fellowship" (38). We see that the fears and threats that AA members face decades ago remain central problems in the development of representative organizations. Dilemmas regarding the nature of change (micro vs. macro, static vs. dynamic, in-

cremental vs. revolutionary etc.) make the ability to see beyond change imperative (39). Collaborative research on the complex underlining group and institutional dynamics, as well as on the resistances they create, is needed.

Wider and active engagement of members is a difficult task and it's strongly related to trust towards institutions. A critical approach to social capital development is needed. We need to reconsider the attitudes and behaviors associations should foster towards a healthy democracy (40). Scarcity of resources in the public health sector raises the responsibilities that citizens and group of shareholders must undertake. A rise in the level and quality of patients' representation in decision making process and the creation of a new paradigm in social capital development could increase the level of health democracy in our country (41). Such efforts combined with fighting stigma could bring about a shift in the mental health care system as a whole. Undeniably, empowerment of participation and representation of people belonging to vulnerable groups is an effective method of treating pathologies of power and social violence (42).

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