Turun yliopisto
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EXPLORING THE IMPACT OF MENTAL HEALTH EDUCATION ON ADOLESCENTS' PERCEPTIONS ABOUT MENTAL HEALTH AND MENTAL ILLNESS

Improving community health

Evanthia Sakellari

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University of Turku

Faculty of Medicine
Department of Nursing Science
Doctoral Programme in Nursing Science

Supervised by

Professor Helena Leino-Kilpi, RN, PhD
Department of Nursing Science
University of Turku and Turku University Hospital
Turku, Finland

Professor Andre Sourander, MD, PhD
Department of Child Psychiatry
University of Turku
Turku, Finland

Professor Athena Kalokerinou-Anagnostopoulou, RN, PhD
Department of Nursing
National and Kapodistrian University of Athens
Athens, Greece

Reviewed by

Professor Riittakerttu Kaltiala-Heino, MD, PhD
School of Medicine
University of Tampere
Tampere, Finland

Adjunct Professor Jari Kylmä, RN, PhD
School of Health Sciences, Nursing Science
University of Tampere
Tampere, Finland

Opponent

Professor Päivi Åstedt-Kurki, RN, PhD
School of Health Sciences, Nursing Science
University of Tampere
Tampere, Finland

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

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As you set out for Ithaka
wish for the voyage is a long one,
full of adventure, full of knowledge.
C.P. Cavafy, 1911

ABSTRACT

The purpose of this study was to explore perceptions of mental health and mental illness as well as the perceptions towards people with mental illness among adolescents, and further to examine the impact that a mental health educational intervention has on these perceptions. The review of the literature revealed a small number of publications on mental health educational interventions among adolescents which aimed at increasing knowledge and affecting attitudes towards mental illness with positive results.

Fifty nine pupils (13-16 years old) from two randomly selected secondary schools around Athens, Greece, participated in this study. These schools were randomly selected as the experimental group (n=28) which participated in the mental health educational intervention, and the comparison group (n=31), which did not receive any intervention. Data were collected using individual interviews with open-ended questions, drawings and a questionnaire (Opinions about Mental Illness - O.M.I. scale).

The participants described mental health and mental illness before and after the intervention, using the same expressions for both terms. Among the experimental group, changes were seen within the same expressions after the intervention, although some descriptions did not change. However, after the intervention, participants in the experimental group did not confuse mental health with mental illness and they also included specific diagnostic examples or stated that mental illness can happen to anyone and it can be managed. Moreover, they expressed positive attitudes towards mentally ill people, which they had not done before the intervention.

The analysis of the drawings before the intervention showed that mentally ill persons were drawn similarly in both groups. After the intervention, the drawings of the participants in the experimental group changed, including fewer negative elements, while the drawings of the comparison group did not change.

Regarding the results on the O.M.I. scale, it was found that the score on the Social Discrimination factor significantly decreased from pre-test to post-test in both study groups. The experimental group had higher levels on Social Discrimination at pre-test compared to the comparison group, but this difference was not significant at post-test. No significant changes were found for the Social Restriction factor for either study group. Scores of the Social Care and Social Integration factors increased significantly only in the intervention group.

Overall, the results of this study indicate that the mental health educational intervention had a positive impact on the perceptions about mental health and mental illness among adolescents, and (mental) health professionals can use these results for implementing similar interventions and further research.

Keywords: mental health, mental illness, persons with mental illness, mental health education, adolescents, schools, interviews, drawings, O.M.I. scale

TIIVISTELMÄ

Tämän tutkimuksen tarkoituksena oli tutkia miten mielenterveys ja mielisairaudet mielletään sekä sitä, miten nuoret suhtautuvat ihmisiin, joilla on mielisairaus, ja tutkia lisäksi mielenterveyteen liittyvän opetuksen vaikutusta näihin käsityksiin. Kirjallisuuskatsauksesta ilmeni pieni määrä julkaisuja, jotka käsittelivät nuorille kohdennettua mielenterveyttä koskevaa opetusta, jolla pyrittiin vaikuttamaan mielisairauksien tuntemukseen ja asenteisiin positiivisin tuloksin.

Tutkimukseen osallistui 59 oppilasta ikähaarukassa 13–16 kahdesta satunnaisesti valitusta peruskoulusta Ateenan (Kreikka) alueelta. Koulut oli valittu satunnaisesti tutkimusryhmäksi, joka muodostui 28 oppilaasta, jotka osallistuivat mielenterveysasioiden opetukseen, ja 31 osallistujan vertailuryhmästä, joka ei saanut opetusta mielenterveysasioista. Tietoa kerättiin yksittäisillä haastatteluilla, joihin sisältyi avoimia kysymyksiä, piirroksia ja kyselylomake.

Osallistujat kuvasivat mielenterveyttä ja mielisairautta ennen opetusta ja sen jälkeen käyttäen molemmissa samoja ilmaisuja. Vaikka koeryhmässä nähtiin muutoksia samoissa ilmaisuissa opetuksen jälkeen, oli myös kuvauksia, jotka eivät olleet muuttuneet. Opetuksen jälkeen koeryhmään osallistuneet eivät kuitenkaan sekoittaneet keskenään mielenterveyttä ja mielisairautta ja he myös kertoivat erityisiä esimerkkejä diagnooseista tai totesivat mielisairautta voivan ilmetä kenellä tahansa ja että sitä voidaan hoitaa. Heidän asenteensa mielenterveyspotilaisiin oli positiivinen, toisin kuin ennen opetusta.

Ennen opetusta tehtyjen piirustusten analyysistä ilmeni, että mielenterveyspotilaat kuvattiin samalla tavalla molemmissa ryhmissä. Opetuksen jälkeen koeryhmään osallistuneiden piirustukset muuttuivat ja niissä oli vähemmän negatiivisia elementtejä, mutta vertailuryhmän piirustuksissa ei sitä vastoin tapahtunut muutosta.

O.M.I. mielipidemittarin tuloksista selvisi, että sosiaalisen syrjintätekijän (Social Discrimination factor) tulos kasvoi merkittävästi koetta edeltäneestä tilanteesta testin jälkeiseen tilanteeseen verrattuna molemmissa tutkimusryhmissä, kun taas koeryhmässä sosiaalisen syrjinnän tasot olivat korkeampia ennen koetta verrattuna vertailuryhmään, mutta tämä ero ei ollut tilastollisesti merkitsevä. Sosiaalisen rajoitustekijän (Social Restriction factor) osalta ei löytynyt merkittäviä muutoksia kummassakaan tutkimusryhmässä. Sosiaalista sopeutumista (Social Care and Social Integration factors) koskeva tulos kasvoi merkittävästi ainoastaan opetusta saaneessa ryhmässä.

Yleisesti tämän tutkimuksen tulokset osoittavat, että mielenterveyteen liittyvä opetus vaikutti positiivisesti siihen, miten nuoret mieltävät mielenterveyden ja mielisairauden ja (mielen)terveysalan ammattilaiset voivat käyttää tuloksia toteuttaessaan vastaavia toimenpiteitä ja lisätutkimuksia.

Avainsanat: mielenterveys, mielisairaus, mielenterveyspotilaat, mielenterveysasioiden opetus, nuoret, koulut, haastattelut, piirrokset

ΠΕΡΙΛΗΨΗ

Ο σκοπός της παρούσας μελέτης ήταν να διερευνήσει τις αντιλήψεις των εφήβων για την ψυχική υγεία και την ψυχική νόσο, καθώς και για τα άτομα με ψυχική νόσο, και περαιτέρω να εξετάσει την επίδραση μίας παρέμβασης αγωγής ψυχικής υγείας σε αυτές τις αντιλήψεις. Η βιβλιογραφική ανασκόπηση εντόπισε ένα μικρό αριθμό δημοσιεύσεων σχετικά με παρεμβάσεις αγωγής ψυχικής υγείας σε έφηβους με στόχο να επηρεάσουν τις γνώσεις και τις στάσεις απέναντι στην ψυχική νόσο.

Στην μελέτη αυτή συμμετείχαν 59 μαθητές ηλικίας 13-16 ετών από δύο τυχαία επιλεγμένα σχολεία της δευτεροβάθμιας εκπαίδευσης της Αθήνας. Η ομάδα παρέμβασης (28 μαθητές) συμμετείχε στην αγωγή ψυχικής υγείας, ενώ η ομάδα σύγκρισης (31 μαθητές) δεν συμμετείχε σε καμία παρέμβαση αγωγής υγείας. Τα δεδομένα συλλέχθηκαν μέσω ατομικών συνεντεύξεων με ανοιχτού τύπου ερωτήσεις, ζωγραφιές και ένα ερωτηματολόγιο (Κλίμακα για τις Στάσεις για την Ψυχική Ασθένεια – O.M.I. scale).

Οι συμμετέχοντες περιέγραψαν την ψυχική υγεία και την ψυχική νόσο, πριν και μετά την παρέμβαση, χρησιμοποιώντας τις ίδιες εκφράσεις για τους δύο όρους. Μετά την παρέμβαση, μεταξύ των συμμετεχόντων της ομάδας παρέμβασης υπήρξαν αλλαγές στις περιγραφές, ενώ υπάρχουν και περιγραφές οι οποίες δεν άλλαξαν. Επιπλέον, η σύγχυση της ψυχικής υγείας με την ψυχική νόσο δεν υπάρχει στους συμμετέχοντες της ομάδας παρέμβασης, οι οποίοι επίσης ανέφεραν διαγνώσεις, ότι η ψυχική νόσος αφορά στον καθένα και μπορεί να αντιμετωπιστεί, εκφράζοντας θετικές στάσεις απέναντι στα άτομα με ψυχικές ασθένειες.

Οι ψυχικά ασθενείς παρουσιάζονται αρχικά ομοίως στις ζωγραφιές και των δύο ομάδων. Μετά την παρέμβαση, οι ζωγραφιές των συμμετεχόντων στην ομάδα παρέμβασης είχαν αλλαγές, παρουσιάζοντας λιγότερα αρνητικά στοιχεία, ενώ οι ζωγραφιές της ομάδας σύγκρισης δεν άλλαξαν.

Όσον αφορά στα αποτελέσματα της κλίμακας «O.M.I.», βρέθηκε ότι οι τιμές του παράγοντα Κοινωνική Διάκριση μειώθηκαν σημαντικά στην β' φάση και στις δύο ομάδες. Δεν παρατηρήθηκαν σημαντικές αλλαγές για τον παράγοντα Κοινωνικός Περιορισμός και για τις δύο ομάδες μελέτης. Οι τιμές των παραγόντων Κοινωνική Φροντίδα και Κοινωνική Ενσωμάτωση είχαν σημαντική αύξηση μόνο στην ομάδα παρέμβασης.

Συμπερασματικά, τα αποτελέσματα αυτής της μελέτης δείχνουν ότι η παρέμβαση αγωγής ψυχικής υγείας είχε θετικό αντίκτυπο στις αντιλήψεις σχετικά με την ψυχική υγεία και την ψυχική νόσο μεταξύ των εφήβων. Οι επαγγελματίες (ψυχικής) υγείας μπορούν να χρησιμοποιήσουν τα αποτελέσματα αυτά για την εφαρμογή παρόμοιων παρεμβάσεων και την εκπόνηση περαιτέρω μελετών.

Λέξεις κλειδιά: ψυχική υγεία, ψυχική νόσος, άτομα με ψυχική νόσο, αγωγή ψυχικής υγείας, έφηβοι, σχολεία, συνεντεύξεις, ζωγραφιές, κλίμακα «O.M.I.»

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ABBREVIATIONS

DALYs	Disability-Adjusted Life Years
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders-IV
EU	European Union
O.M.I. scale	Opinions about Mental Illness scale
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom
USA	United States of America
US	United States
W.H.O.	World Health Organization

LIST OF ORIGINAL PUBLICATIONS

This thesis is based on the following publications, which are referred in the text by their Roman numerals from I – V:

I Sakellari E, Leino-Kilpi H, Kalokerinou-Anagnostopoulou A. 2011. Mental health educational interventions in secondary education aiming to affect pupils´ attitudes towards mental illness: a review of the literature. Journal of Psychiatric and Mental Health Nursing 18, 166–176.

II Sakellari E, Sourander A, Kalokerinou-Anagnostopoulou A, Leino-Kilpi H. 2014. The impact of an educational mental health intervention on adolescents' perceptions of mental illness. Journal of Psychiatric and Mental Health Nursing 21, 635–641.

III Sakellari E, Sourander A, Leino-Kilpi H. 2014. Perceptions of mental health among adolescents in Greece. British Journal of Mental Health Nursing 3, 126-131.

IV Sakellari E, Lehtonen K, Sourander A, Kalokerinou-Anagnostopoulou A, Leino-Kilpi H. 2014. Greek adolescents' views of people with mental illness through drawings: mental health education's impact. Nursing and Health Sciences. DOI: 10.1111/nhs.12113.

V Sakellari E, Sourander A, Kalokerinou-Anagnostopoulou A, Leino-Kilpi H. Opinions about Mental Illness among adolescents. The impact of a mental health educational intervention. Submitted.

1. INTRODUCTION

Mental health is recognised globally as being of enormous social and public health importance (Johnstone 2001). "There is no health without mental health" was the clear message of the European Conference on Promotion of Mental Health and Social Inclusion (Geber-Teir 1999). The Mental Health Action Plan for Europe (W.H.O. 2005a) recommends that mental health should be made as an inseparable part of public health. Mental health should be a priority within the framework of health care services and especially within health promotion and health education (Sakellari 2010).

The vision of the W.H.O. Global Mental Health Action Plan 2013-2020 (W.H.O. 2012a; 2013a) is "*a world in which mental health is valued, promoted and protected; mental disorders are prevented and persons affected by these disorders are able to exercise the full range of human rights and to access high quality, culturally-appropriate health and social care in a timely way to promote recovery, in order to attain the highest possible level of health and participate fully in society and at work, free from stigmatization and discrimination*". Furthermore, the recent W.H.O. (2013b) report titled "Investing in Mental Health" stresses the responsibility of the governments to ensure that needs are met and that the mental health of the whole population is promoted and urges governments and other stakeholders to undertake a number of key actions including provision of better information, awareness and education about mental health and illness.

Mental health is essential to positive growth and development, it is a basic human right, and is fundamental to all human and social progress. It is a prerequisite to a happy and fulfilled life for individual citizens, for effectively functioning families and for societal cohesion (Jané-Llopis & Braddick 2008). Likewise, mental disorders affect the functioning of the individual, resulting in not only enormous emotional suffering and a diminished quality of life but also alienation, stigma and discrimination. This burden extends further into the community and society as a whole, having far-reaching economic and social consequences (W.H.O. 2002). Mental Health Europe (2011) recommends that public awareness should be raised, stressing the need to carry on developing anti-stigma campaigns and education, to measure their impact and to further publicise.

At any point in time, mental and behavioural disorders are present in about 10% of the adult population worldwide (W.H.O. 2004a). Most adults with a psychiatric disorder had a diagnosable disorder as children (Kim-Cohen et al. 2003). One fifth of teenagers under the age of 18 years suffer from developmental, emotional or behavioural problems, while one in eight has a mental disorder. Among disadvantaged children the rate is one in five (W.H.O. 2004a). Children and adolescents with mental disorders can be at increased risk of mental ill-health in adulthood (W.H.O. 2007). The proportion of adult psychiatric disorders that can be attributed to any juvenile disorder before 15 years of age ranged from 23% to 46% (Kim-Cohen et al. 2003). We are likely to have to deal with mental illness at some time, whether in family members, colleagues or

ourselves (Gray 2002). Some 2 million young people in the European Region of W.H.O. suffer from mental disorders ranging from depression to schizophrenia, and many of them receive no care or treatment (W.H.O. 2005b). Young people with the highest incidence and prevalence of mental ill health receive the least help to overcome these threats to their survival, well-being and contribution to others (McGorry 2011).

Internationally, one of the challenges in the last years has been developing new, integrated community treatments and new supporting programs for chronic patients (Vezzoli et al. 2001). Most people who suffer from severe mental illness live within the community (Stark et al. 2004), but this physical presence does not mean that they are included as part of those communities (Perkins & Repper 2005), and negative attitudes toward mental disorders have been known to worsen the overall quality of life of the patients (Aghanwa 2004). However, real progress in the care of persons with mental illness requires that stigmatisations are reduced alongside improvements in prevention, treatment and self-help strategies (Crisp et al. 2005).

Negative evaluations of the mentally ill date back to ancient times; public sentiment favoured socially rejecting mentally ill people and continually kept a social distance from mentally ill people (Martin et al. 2000). The public's reactions to mental illness include a plethora of prejudicial beliefs, emotions and behaviours that lead to discrimination against the mentally ill (Corrigan 2004). Stigmatisation, discrimination and non-respect for the human rights and dignity of mentally ill and disabled people still exist, challenging core European values, and thus, the Green Paper on Mental Health proposes to establish an EU-strategy on mental health (European Commission 2005). People with mental illness are aware of the general public's tendency to stigmatize and consider them dangerous, irresponsible, socially isolated individuals who are unlikely to improve, and thus, they lose their self-esteem, experience adverse quality of life, and become demoralized by the community's rejection (Emrich et al. 2003). Thornicroft et al. (2009) found that 47% of the 729 participants experienced discrimination in making or keeping friends; 29% (of 724) had experienced discrimination in finding a job, and 29% (of 730) discrimination in maintaining employment.

The starting point for diminishing stigmatisation, claimed by Byrne (2000) for all target groups and at every level, is education. Education enables the public to make more informed decisions about mental illness (Corrigan & Penn 1999). It is targeted not only to inform and prevent, but it also forms the attitudes towards mentally ill people in order not to marginalise them (Papageorgiou-Vasilopoulou 2005). An increase in mental health literacy in the population may assist prevention, early intervention, effective self-help and support of others in the community (Jorm 2000). Since the promotion of mental health is a more extensive concept than preventing mental health problems (Puolakka et al. 2011), it is crucial to promote an understanding of the nature of mental health and mental illness as a means of changing policies and practices in education, employment, law and health which are critical to mental health (Herman 2001). In addition, promoting respect, tolerance, empathy and an appreciation of diversity should begin early in life (Sabir Ali & Iftikar 2006). Moreover, as Pinto-

Foltz and Logsdon (2009) support, adolescence is an opportune time to encourage positive attitudes, reduce stigma related to mental disorders and reduce the illness burden across the life span.

Although mental health is an essential issue in health care worldwide, in most parts of the world, mental health and mental disorders are not considered as important as physical health (W.H.O. 2001a). Investment in mental health and awareness and assessment of the mental health impact of policy changes and political decisions are necessary actions in all countries (Rutz 2001). Moreover, Herrman (2001) supports that the promotion of community understanding about the nature of mental health and mental illness, is the key to changing the policies and practices in education, employment, law and health which are critical to mental health. Across European countries, despite the acknowledgement of prevention and promotion by politicians and policy makers, the priority of mental health promotion and mental disorder prevention seems to be lower when it comes to translation of words into action (Jané-Llopis & Anderson 2006). The Monitoring Positive Mental Health Environments Project recommends fostering the development of mentally healthy schools by implementing health promoting school programmes which should include health education to the general public, including lessons on mental health issues (Lehtinen 2008). The EU project MINDFUL proposed several indicators for positive mental health which include promotion of mental health through schools and education (Lavikainen et al. 2006). Hennessy, Swords and Heary (2007) call for more research on mental health education programmes and the understanding of mental health among children. Muennich-Cowell (2010, 2011) in her editorials supports that "school health researchers are challenged to develop and test adaptable enough interventions to be implemented around the world" (Muennich-Cowell 2010) and "system wide intervention studies can isolate problems that need to be addressed and allow for adoption of established population and individual focused mental health promotion programmes available to school nurses" (Muennich-Cowell 2011).

Adolescents are at the developmental stage where they develop cognitive abilities which include formal operational thinking (Mussen et al. 1990), form many attitudes about life, and discover various meanings of the concept of mental health (Fitzgerald et al 1995). It is supported by a school based awareness programme that young people can be important sources of information and have an impact on the community (Rahman et al. 1998). Adolescent mental health is essential for the building and maintenance of stable societies (W.H.O. 2005b). The US Department of Health and Human Services (2013) supports that health and quality of life rely on many community systems and factors and not simply on a well-functioning health and medical care system, and thus, making changes within existing systems, such as improving school health programmes and policies, can effectively improve the health of many in the community. In Europe, The EU Green Paper for Mental Health encourages actions and an EU strategy towards the improvement of the population mental health in general (European Commission 2005). It is clear that the community programmes for mental health are the most interesting challenges today.

The ultimate goal of this study is to contribute to an increase in awareness of the issue of mental health and mental illness among adolescents, and to stimulate further mental health interventions among this target group which will further contribute to the community health.

It is important to note that the aim of this study is to explore the perceptions on mental health and mental illness. Regarding the term of mental illness, several concepts are used in the literature, and these do not provide a clear and accurate distinction. In DSM-IV manual, it is noted that although this manual provides a classification of mental disorders, it must be admitted that no definition adequately specifies precise boundaries for the concept of mental disorder (A.P.A. 1994). In addition, it is proposed to use the term "mental/psychiatric" (Stein et al. 2010). In this study, "mental illness" is used to describe conditions such as schizophrenia, and "mental disorders" is used to describe the entire spectrum of mental disorders. In addition, the different terms which refer to mental disorders are cited as they are used in the original references.

2. REVIEW OF THE LITERATURE

The main concepts of the study and the summary of literature review are described in this part of the literature review. First, the study started with a systematic review of the literature conducted in order to identify educational interventions implemented among adolescents with the aim of affecting the knowledge and attitudes towards mental illness (I). For the purposes of this systematic review, the databases searched were: Medline (1950 to November 2008), CINAHL (1982 to November 2008) and Psychinfo database (1860–2008). Additionally, the literature review was also conducted in the explorative phase (II-V) and it has been updated for the purposes of this summary. It was conducted in the same way as described above and published earlier (I). The update of the systematic literature review resulted in the addition of three new studies. One different issue has been identified in the updated review, which is that one of the studies aimed at attitudes towards peers with mental illness and not any age person in general as the rest. The Tables 1 and 2 describe in the same way as in Paper I the results of the updated systematic review. In Table 1 the new studies found are presented briefly and in Table 2 the instruments used and the testing timing are presented.

The literature search turned out to be challenging, as only a few articles were found meeting the inclusion criteria (I) demonstrating that this is not a well-researched topic. The limited numbers of published studies primarily focus on knowledge about and attitudes towards mental illness. Their results are encouraging with regard to increasing adolescents' knowledge about mental health and illness, and in reducing their negative attitudes towards people with mental health problems (Sakellari et al. 2011), which were also found in the new studies identified by the updated review (Table 1). However, the previous studies do not provide information regarding how the adolescents understand mental health and mental illness with respect to mental health educational interventions. Thus, it was concluded that relatively little work has been done on mental health educational interventions among adolescents, though a great deal of research has been done in other areas connected to mental health.

The literature review in this summary consists of four main parts. First, several issues of mental health and mental illness are described starting with definitions of mental health and mental illness, followed by the prevalence of mental illness and finally the stigma of mental illness and attitudes towards mentally ill persons. The second, section focuses on adolescents. Third is mental health education and promotion with regards to adolescents. Forth, the literature review is summarised.

Table 1. Brief description of the updated systematic review studies (2008-2014)

	Authors, year, country	Participants	Methods & length of intervention	Outcomes
1	**Yau, Pun & Tang (2011), Hong Kong**	1.040 students (12-19 years) (no control group)	- interactive learning eco-tour 3 hours - health link green club six 2- hours sessions	- positive attitude changes, acceptance, and social inclusion of people with mental illness - enhancing awareness of mental health - reduction in public stigma and in the self-stigma of seeking psychological help (by participants in eco-tour programme)
2	**Chan, Mak & Law (2009), Hong Kong**	255 secondary school students - 88 students: education - 94 students: education-video - 73 students: video-education	- education - education-video - video-education 30 min. lecture 5 min. questions-answers session 15 min. video	- the education-video condition compared to education condition showed larger improvements in stigmatizing attitudes at post- test, in social distance at post-test & follow-up, and in knowledge at follow-up - in comparison of video-education condition and education condition the change was the same
3	**Pejović-Milovančević et al. (2009), Serbia**	63 high school students (adolescents/15 years?)	- two parts programme six weeks each meeting lasted for 60 min. (15 min. theoretical considerations & 45 min. workshop)	- social discrimination and tendency towards social restriction were reduced - social awareness of mental health-related problems increased

Table 2. Instruments and test timing of the updated systematic review studies (2008-2014)

	Instrument & author	Content of instruments	Test timing
1	1. Public Stigma Scale for Mental Illness (Mak 2010)[1] 2. Self-stigma of seeking help (SSOSH) scale (Vogel et al. 2006) 3. Satisfaction survey (only at follow up) 4. Reflections on participants' experiences (qualitative)	1. 17 items assessing the stigma towards people in recovery 2. 10 items measuring the self-stigma associated with seeking psychological help 3. Questions: " The programme enhances my understanding of mental health", "The programme enhances my understanding of organic farming", "The programme is beneficial to me", and "I would recommend others to participate in the programme" 4. Cards of acknowledgement	- pre - post (one month after the programmes)
2	1. Public Sigma Scale (Mak & Leung 2008)[2] 2. Social Distance Scale modified version developed for secondary school students (Schulze et al. 2003) 3. Knowledge Test developed for this study similar to others (Holmes et al. 1999, Pinfold et al. 2003, 2005a, Stuart 2006, Watson et al. 2004) 4. Level of Contact Report (Corrigan et al. 2005)	1. 12 items measuring the stigmatizing attitudes towards people with schizophrenia in terms of three components: affective, cognitive and behavioural 2. 11 statements describing planned behaviours towards people with schizophrenia (one statement not used because it assessed emotional rather than behavioural responses 3. 32 items of true-false assessing factual knowledge about schizophrenia 4. 8 items assessing previous experiences with schizophrenia by describing eight situations in which intimacy of contact with people with schizophrenia varied	- pre - post - 1 month follow-up
3	Opinion about Mental Illness questionnaire (Struening & Cohen 1963)	51 items (5 factors: Authoritarianism, Benevolence, Mental Hygiene Ideology, Social Restriction and Interpersonal Etiology)	- pre - post (six months after the programme)

[1] Unpublished manuscript; cited by Yau, Pun & Tang (2011)
[2] Unpublished manuscript; cited by Chan, Mak & Law (2009)

2.1. Mental Health, Mental Illness and perceptions towards persons with mental illness

Mental health is a basic human right, it is fundamental to all human and social progress and is a basic requirement in order to live a happy and fulfilled life (Weare 2007). Mental health refers to the successful performance of mental function, resulting in productive activities, fulfilling relationships, and the ability to adapt to change and adversity (U.S. Department of Health and Human Services 1999). Various authors have provided a description of mental health. Among them, Herrman et al. (2005) support that mental health is the foundation for well-being and effective functioning for an individual and for a community. Mental health refers to the individual's subjective feelings of well-being, optimism and mastery, the concepts of resilience, or the ability to deal with adversity, and the capacity to be able to form and maintain meaningful relationships (Lavikainen et al. 2000). Kovess-Masfety et al. (2005) state that mental health has been conceptualised as a positive emotion in various ways, such as feelings of happiness, as a personality trait inclusive of the psychological resources of self-esteem and mastery, and as resilience, which is the capacity to cope with adversity. Additionally, Johnstone (2001) supports that mental health is much more than the absence of mental illness and that it may be defined as the capacity of individuals and groups to interact with one another and the environment in ways that promote subjective well-being, optimal development and use of cognitive, affective and relational abilities. Furthermore, Secker (1998) has concluded earlier that mental health tends to be conceptualised in terms of elements, such as problem solving, social competence and autonomy/mastery. Mental health has been variously conceptualised as a positive emotion (affect) such as feelings of happiness; as a personality trait inclusive of the psychological resources of self-esteem and mastery; and as resilience, which is the capacity to cope with adversity (Kovess-Masfety et al. 2005).

The W.H.O. (2011a) defines mental health as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. Mental health is an integral and essential component of health. It includes concepts such as resilience, a sense of mastery and control, optimism and hope as well as our ability to initiate and sustain relationships and to play a part in our social world (European Commission 2008). The W.H.O. constitution states that health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity", and thus, an important consequence of this definition is that mental health is described as more than the absence of mental disorders or disabilities (W.H.O. 2010).

Illness relates to a way of being for the individual concerned (Radley 1994). A generalised response is that illness is an abnormal functioning of a body's system(s), and evolves into more specific assessments of what we observe and believe to be wrong (Spector 2004). Throughout the 1970's mental health and illness are seen as opposite poles of a continuum, with most people falling somewhere in between the extremes. Since the 1980's people who are mentally ill are placed into specific disease

categories by the identification of specific symptoms (Horwitz & Scheid 1999). Mental Illness is characterised by alterations in thinking, mood, or behaviour associated with distress or impaired functioning (U.S. Department of Health and Human Services 1999). Mental illness refers to conditions that affect cognition, emotion, and behaviour such as schizophrenia and depression (Manderscheid et al. 2010). The Canadian Mental Health Association (2012) defines mental illnesses (also called mental disorders) as a variety of psychiatric conditions which typically show thought, behavioural or emotional impairments as a result of genetic, environmental, biological and psychosocial factors. Individuals experiencing a mental illness may have problems with behavioural and emotional control, communication and their sense of reality may become distorted. According to the W.H.O. (2012b) mental disorders comprise a broad range of problems with different symptoms. However, they are generally characterized by a combination of abnormal thoughts, emotions, behaviour and relationships with others. Examples are schizophrenia, depression, mental retardation and disorders due to drug abuse.

Mental illnesses are described, diagnosed and experienced in different cultures (Burnard et al. 2006). In ancient Greece, Hippocrates related the cause of mental illness to the brain (Christodoulou et al. 2011). However, it has not always been described in the same way. There have been alternative and questionable theories. For example, Szasz (1960) has argued that mental illness is a myth. Fifty years ago, Szasz noted that modern psychiatry rests on a basic conceptual error - the systematic misinterpretation of unwanted behaviours as the diagnoses of mental illnesses pointing to underlying neurological diseases susceptible to pharmacological treatments. He proposed that the phenomena formerly called “psychoses” and “neuroses”, now simply called “mental illnesses”, should be viewed as behaviours that disturb or disorient others or the self; reject the image of the patients as the helpless victims of pathobiological events outside their control; and withdraw from participating in coercive psychiatric practices as incompatible with the foundational moral ideals of free societies (Szasz 2011). Foucault (1965) believes that “madness” is a societal development and it is determined by the different societies how it is experienced. Foucault demonstrated how over time the insane have been driven from a realm of empathetic and somewhat esteemed regard to a place of segregation and isolation (Hunton 2010). Moreover, different cultures embrace different taxonomies of mental disorders and therefore, it might be possible to be “mad” in one culture and “sane” in another (Bentall 2003).

It has been estimated that 450 million people worldwide suffer from a mental or behavioural disorder (W.H.O. 2003). It has been found that seven of the top ten causes of disability in industrialised countries were mental disorders (Zarrinpar 2002). Approximately 14% of the global burden of disease has been attributed to neuropsychiatric disorders (Prince et al. 2007). Major depression and related affective disturbances are placed in the second rank world-wide for the DALYs causes (Anthony et al. 2009). Mental disorders are an important source of loss of healthy life for women aged 15-44 years and they make up 3 of the 10 leading causes of disease burden in low- and middle-income countries, and 4 of the leading 10 in high-income countries (W.H.O. 2008a). In a prospective longitudinal study, half of the individuals who met

criteria for a major DSM-IV diagnosis at 26 years of age first had a diagnosable disorder at 11 to 15 years of age, and three-quarters had a first diagnosis before 18 years of age (Kim-Cohen et al. 2003). It is predicted that by 2020 major depression will be the second largest health problem worldwide (W.H.O. 2001b). The WHO (2004c) also estimates that 151 million people suffer from depression and 26 million people from schizophrenia. Unipolar depression makes a large contribution to the burden of disease, being at third place worldwide and eighth place in low-income countries, but at first place in middle- and high-income countries (W.H.O. 2008a). Community-based epidemiological studies have estimated lifetime prevalence rates of mental disorders in adults at 12.2%−48.6% and 12-month prevalence rates at 8.4%−29.1% (W.H.O. 2008b).

In Europe, mental disorders are experienced by approximately one in ten citizens, and in many EU states depression is the most common health problem (European Commission 2010). It is estimated that nearly 50 million EU citizens experience mental disorders (European Pact for Mental Health and Well-Being 2008). A recent European study (Alonso and Lepine, 2007) found that 25.9% of participants reported a lifetime presence of any mental disorder, and 11.5% had experienced a mental disorder during the past 12 months. About 15 % of EU citizens have sought help for a psychological or emotional problem in the past 12 months and 7% have admitted to taking antidepressants in the past 12 months (European Commission 2010). Wittchen et al. (2011), conclude that in any one year, the proportion of the European Union's population suffering from a mental disorder is 38.2% (164.8 million people). In the USA, data from the National Comorbidity Survey Replication show that the twelve-month prevalence of any psychiatric disorder is 26.2% (Kessler et al. 2005a) and the lifetime prevalence is 46-4% (Kessler et al. 2005b).

Adolescents are generally perceived as a healthy age group, and yet 20% of them, in any given year, experience a mental health problem, most commonly depression or anxiety (W.H.O. 2012c). In high-income countries, between 5% to 20% of children and adolescents need mental health services (W.H.O. 2005c). One fifth of adolescents under the age of 18 suffer from developmental, emotional or behavioural problems and one in eight have a mental disorder (Jane-Llopis & Anderson 2005). The twelve month prevalence estimates for depressive illness range from 1% to 11% with higher rates in adolescents (Chisholm et al. 2004). Moreover, a meta-analysis on estimates of the prevalence of child and adolescent depression are 5.7% for adolescents and 2.8% for children (Costello et al. 2006). Finally, child and adolescent mental problems are highly prevalent throughout Europe, with epidemiological studies from different European countries demonstrating high prevalence rates (W.H.O. 2008c). The W.H.O. estimates that some two million young people in the European Region suffer from mental disorders ranging from depression to schizophrenia (W.H.O. 2005a). And yet, the majority of adolescents with mental health problems do not receive professional help for their problems (Sournader et al. 2001), and mental health problems in adolescence tend to be under-recognised and under-treated (Sourander et al. 2004).

In Greece, before World War II, mental illness carried a significant stigma, treatment was far from adequate, and mental health had never been high on the political agenda (Douzenis 2007). Traditionally, psychiatric care in Greece was institutionalised (Zisi 2002). In Greece, before 1983-84, mental health was based in nine large psychiatric hospitals (Constantopoulos 2006). The Psychiatric Reform was commenced in Greece in 1983 through the passing of the National Health System Act 2071/83 (Ministry of Health and Welfare 2001). Therefore, the number of long-stay patients in public mental hospitals between 1984 and 2000 decreased by 48.5% and the total number of patients was reduced by 55.7% (Madianos 2002). In Greece, 36,139 patients with mental disorders were discharged from hospitals (National Statistical Service of Greece 2001) during 1997. In 2004 the number decreased to 25,859 hospital discharges (National Statistical Service of Greece 2010). As a result of the reform, there is more emphasis on community-based care rather than institutional care. By the year 2010, only four psychiatric hospitals remain in operation (Ministry of Health and Welfare 2001). In 2003, in Greece, neuropsychiatric conditions were the highest cause of total disability-adjusted life-years amongst females (24.8%) and the second highest for the male population (19.5%) (W.H.O. 2006). Greek adolescent pupils have reported poor quality of life with regard to their mental well-being (Tountas et al. 2007). A study on Greek adolescents' emotional and behavioural problems showed that older adolescents (aged 15-17 years) reported more hyperactivity/inattention and more conduct problems than younger ones (aged 11-14 years), while girls reported more emotional symptoms and less prosocial behaviour problems than boys, and adolescents of low socioeconomic status reported more difficulties than those of medium and high socioeconomic status (Giannakopoulos 2009). Greek children (aged 6-11 years) had significantly higher scores for the Withdrawn, Anxious/Depressed, Attention Problems, Delinquent Behaviour, Aggressive Behaviour, Internalizing, Externalizing, and Total Problem scales of the Child Behaviour Checklist when compared to American children (MacDonald et al. 1995). Later, Roussos et al. (1999) found that Greek parents saw their children (6-12 years old) as more anxious and depressed and, therefore, as having more internalizing problems comparing to American ratings, and they also saw them as being more aggressive and delinquent; consequently Greek children had higher externalizing scores than the American children. Finally, factors associated with subjective health complaints among Greek adolescents included low parental mental health status, parental worry regarding the child's symptoms and low-quality parent–child relationships (Petanidou et al. 2014).

Mental health is seriously challenged by discriminatory practices both in terms of racism within psychiatry but also considering discrimination in a broader civil rights framework (Pinfold 2004). Stigma is a reality for many people with a mental illness, and they report that how others judge them is one of their greatest barriers to a complete and satisfying life (Canadian Mental Health Association 2013). A study found that harassment in the community was twice as common for individuals with mental health problems than for those in the general population (Berzins et al. 2003). The mentally ill experiences different forms of informal social stigmatisation and a course of characteristics are attributed to him/her, which are associated with stereotypes (Malliori et al. 2007). Social exclusion is a particularly powerful descriptor

of the experience of persons with mental health problems (Sayce & Curran 2007). Stigmatised individuals are aware that they are different from others, and this has implications to their identity; their overall sense of who they are (Blaine 2007).

Stigma associated with mental health problems is one of the key challenges to addressing mental health needs (Patel et al. 2007). Stigma and discrimination operative at individual, community and institutional levels continue to be a major challenge in mainstreaming mental health in general (W.H.O. 2011b). Stigma is one major social result of mental health problems, and although this study is not focused on stigma itself, it is discussed here since the perceptions of mental health and mental illness can lead to stigmatisation attitudes. Defining stigma and describing attitudes towards mentally ill persons as well as the impact on them follow below.

Stigma comes from the Greek word *στίγμα* "mark", it is the consequence of prejudice and prejudice is detriment or damage caused to a person by judgement or action in which his/her rights and dignity are disregarded (Lopez-Ibor 2002). Stigma is understood to mean a social construction whereby a distinguishing mark of social disgrace is attached to others in order to identify and to devalue them, thus, stigma and the process of stigmatisation consist of two fundamental elements, the recognition of the differentiating "mark" and the subsequent devaluation of the person (Arboleda-Florez 2002). The meaning of stigma is an unwelcome libellous attribute which deprives the person of the right of absolute social acceptance, undermines radically his/her social status and opposes human dignity (Malliori et al. 2007). Stigma is an attribute that is deeply discrediting and indicates an experience of shame and disgrace, while the stigmatised experience social distancing by others who are not ready to accept them as members in their social group (Thara & Srinivasan 2000). It is a social process, experienced or anticipated, characterised by exclusion, rejection, blame or devaluation that results from experience, perception or reasonable anticipation of an adverse social judgement about a person or group (Scambler 2009). Because there are so many stigmatised circumstances and because stigmatising processes can affect multiple domains of people's lives, stigmatisation probably has a dramatic bearing on the distribution of life chances in such areas such as earnings, housing, criminal involvement, health and life itself (Link & Phelan 2001). Stigmatisation should be seen as a social psychological phenomenon that originates in the relationships between individuals and between groups and constitutes a threat to the targeted individual's self-esteem and identity (Markström et al. 2009).

Stigma, prejudice and discrimination against those with mental illness cut across all classes and social groups (Arboleda-Florez 2003). Mental illness stigma existed long before psychiatry, although in many instances the institution of psychiatry has not helped to reduce either stereotyping or discriminatory practices (Byrne 2000). Stigma because of mental illness, especially schizophrenia and depression, is widespread. It affects different life domains: interpersonal relationships, housing, employment, and overall quality of life, and because of stigma, the rehabilitation of people with mental illness is jeopardised (Christoph et al. 2005). Quality of life for people with

schizophrenia has been found to be impaired compared to general population (Evans et al. 2007).

Four possible explanations of stigma are offered by a review of the literature: dangerousness, attribution of responsibility, poor prognosis, and disruption of social interaction (Hayward & Bright 1997). Moreover, Kaminski and Harty (1999) state that from a young age we are bombarded with imagery that is discriminatory regarding mental illness. One of the major causes of stigmatisation and discrimination is a lack of understanding of mental health by society (British Medical Association 2006); the basis for stigma is a fear of what is not understood, indicating a lack of knowledge or a misperception about mental illnesses on the part of the perceiver (Halter 2004). The public's lack of knowledge of the causes, symptoms, and treatment options for mental disorders, along with a lack of personal contact with affected individuals can result in prejudices and negative attitudes towards the mentally ill which consequently results in stigmatization and discrimination (Baumann 2007). On the other hand, a review on the literature on the predictors of negative attitudes towards mentally ill people concluded that there is a positive association between familiarity with mental illness and the acceptance of people with mental disorders (Angermeyer & Dietrich, 2006). Thus, contact is important for decreasing stereotypes (Rüsch et al. 2005) and for reducing stigmatizing attitudes about mental illness (Alexander & Link 2003, Couture & Penn 2003, Angermeyer Matschinger & Corrigan 2004, Aromaa et al. 2011), however a study among adolescents found that exposure increased stigma (Corrigan et al. 2005).

Social stigma has a tremendous impact on the daily lives of people with a mental disorder (Bos et al. 2009). Perceived stigma and overt discrimination against persons with mental illness causes distress, prevents people from disclosing their difficulties, affects how a psychiatric diagnosis is accepted and weather treatment will be adhered to, and may reduce opportunities for recovery (Dinos et al. 2004). Similarly, attitudes and beliefs that might discourage help-seeking behaviour, such as perceived stigma, were quite prevalent in a later study (Komiti et al. 2006). Stigma undermines social adaptation and leads to reduced adherence to treatment, non-disclosure and secrecy, reduced supportive social networks, self-esteem and psychological well-being (Harrison & Gill 2010). The negative consequences of stigma include discrimination in housing, education and employment and increased feelings of hopelessness (Hocking 2003). Negative community reactions have been one of the most important factors affecting community management of mental illness in the institutionalised era (Stuart 2003). The belief that mental disorders involve a high risk of social danger and unpredictable behaviours limits the implementation of community mental health care on a large scale (Magliano et al. 2004). Since the beginning of the community mental health movement, negative public attitudes have become essential factors in the management of mental illness as successful community reintegration and tenure depend on the existence of a tolerant and supportive community environment (Stuart & Arboleda-Florez 2001). Discrimination can result in barriers to accessing mental health services; the fear of stigmatisation may lead people to be reluctant to seek treatment, and hide diagnoses from friends and family (British Medical Association 2006). Huxley (1993) suggests that while there is a degree of greater openness about mental

illness, stigma remains pervasive. Arboleda-Florez (2003) has concluded that perceiving the mentally ill as dangerous and unpredictable is the basis of most stigmatising attitudes and is a major determinant of levels of social distance felt by many among the general public. Researchers have identified stigma and discrimination as important obstacles to people with mental illness being integrated within society (Bjorkman et al. 2008). If mentally ill people are seen as ill rather than as eccentric or bad, it is easier to seek ways of providing them with appropriate services, and to seek approaches to prevention and mental health promotion (Herrman 2001). Furthermore, unrejective, supportive and tolerant attitudes have an influence which make the patient's adaptation to the community easier and ensure that the patient joins the treatment (Taskin et al. 2003).

In the course of history, "insanity" has been imbued with negative meanings, which have come to be an integral part of the cultural common sense, our definitions of social reality (Angermeyer & Schulze 2001). In Western European societies, psychiatric stigma was well established in the classical period and even more so during the medieval period (Fobrega 1991) and repeatedly negative feelings and perceptions have been described in all kinds of societies (Ineland et al. 2008). Studies have shown that the general public sees people with mental illness as being dangerous (Corrigan et al. 2001, Gureje et al. 2005) and that other people should fear them (Corrigan et al. 2001) or people would not tolerate even basic social contact with them or be afraid to have a conversation with them (Gureje et al. 2005). This fear is based on the perceived association between mental illness and violence (Monahan & Arnold 1996). The public believe that most persons with serious mental illness are dangerous which leads to fear and like most sources of fear, people with serious mental illness are avoided (Corrigan et al. 2002). Moreover, the public feels it necessary to keep mentally ill patients at a distance in personal relations and has the tendency to terminate interaction with the mentally ill in social proximity (Taskin et al. 2003).

An early study in New Zealand in 1984 regarding community stereotype showed that the mental patient is unpredictable, tense and dangerous (Green et al. 1987). Similarly, it has been argued that a strong stereotype persists among the general public that mentally ill people are dangerous and that other people should keep a social distance from them (Link & Phelan 1999). The general public associates mental illness with hallucinations, delusions (often of a bizarre kind), psychomotor abnormalities and incoherent speech (Sartorius 1998). People with mental illness are often considered to be identifiable and different from the rest of the population (Herrman 2001). A study in 1976 and 2003 in a community of Northern Sweden, showed the perception of mentally ill as people committing violent acts more than others and the unwillingness to hire a babysitter that has been treated at a psychiatric clinic was more negative in 2003 than in 1976 (Ineland et al. 2008). A survey among British adults, aged 16 and over, showed a prevalence of negative opinions about mental disorders (Crisp et al. 2000). A later research among Greek citizens aged 18-65 years (Melissa et al. 2006) showed that 83% of them believed that people with mental disorders could be cured; an attitude which was mainly held by the majority of young people (18-26 years old). Moreover, the positive attitudes of the same participants towards people with mental

disorders were implied by answers which stated that these patients should not be marginalised, but they should have the right to education, find a job and be integrated into society as equals (Melissa et al. 2006). Finally, surprisingly, although healthcare staff might be expected to have a more open-minded view of people with mental health problems, the results indicate that negative, stigmatised views of people with mental illness are prevalence even among healthcare workers (Rao et al. 2009).

A primary component of population-based public health practice is education. Thus, if people are going to behave in a way that will promote their health and the health of their community, they first should know how to do so (McKenzie et al. 2005). Improving mental health brings significant benefits for overall health and quality of life, for individuals and for communities: these benefits are not only or necessarily the result of the absence of mental illness, but are due to aspects of positive mental health (Friedli 2009). One of the activities of promoting public health is health education (Earle 2007). Community health approaches have always used health education interventions (McKenzie et al. 2005). Through health education, communities and health professional bodies can prepare themselves for change and begin to effect the transformation in public policy that will address social and environmental inequalities and improve health (Wills & Earle 2007). Thus, the perceptions about mental health and mental illness are a major challenge for community health.

2.2. Mental Health Promotion and Mental Health Education

Health promotion and health education are important components of the role of Health Visitor, Nurse and Midwife (Norton 1998). Furthermore, in Greece, Health Visitors according to their professional rights are responsible for planning, implementing and evaluating health education programmes (Presidential Decree 1989).

The W.H.O. Ottawa Charter for Health Promotion (1986) defined health promotion as the process of enabling people to increase control over, and to improve their health (W.H.O. 1998). Tossavainen et al. (2004) support that health promotion education focuses on the development of the whole person, viewing the total individual in a total environment. Benefits of health promotion information may include changes in attitudes, increased awareness and knowledge, lowered risk for certain health problems, better health status, and improved quality of life (Modeste & Tamayose 2004). However, Pender et al. (2011) support that health promotion is motivated by the desire to increase well-being and actualize human health potential.

Education is defined as the experiences that influence the way people perceive themselves in relation to their social, cultural and physical environments; a complex and purposeful process for expediting learning (Modeste & Tamayose 2004). Health education is one of the means of achieving the goals of health promotion (Kok 2004). Health education is dedicated to the improvement of the health status of individuals and the community (Gilbert et al. 2011). Health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing

life skills which are conducive to individual and community health (W.H.O. 1998). It is part of health promotion and its effectiveness will surely be enhanced if there is a supportive environment established by a health policy (Norton 1998). Health education provides learning opportunities about health through interactions between educators and learners using a variety of learning experiences (Modeste & Tamayose 2004).

Mental health promotion, according to the W.H.O. (2010) involves actions to create living conditions and environments that support mental health and allow people to adopt and maintain healthy lifestyles. These include a range of actions to increase the chances of more people experiencing better mental health (W.H.O. 2010). The Framework for Promoting Mental Health in Europe supports that mental health aspects should be integrated to all health promotion programmes (Lahtinen et al. 1999). Mental health promotion is recognized as an integral component of health promotion in general (Sturgeon 2010). Promotion of mental health is an umbrella concept covering all positive activities, including individual, interactional, structural or cultural approaches, aiming both to increase the value and visibility of mental health and encourage concrete efforts to protect, maintain and improve mental health (Lahtinen et al. 1999). Mental health promotion aims to protect and support emotional and social wellbeing and create the conditions that enable optimal functioning of individuals, families, communities, and societies (McCollam et al. 2008).

Mental health education is an umbrella concept covering all educational approaches to increase knowledge and promote skills related to mental health (at population, group or individual level) which take place in the media, educational institutions, services and other settings (Lahtinen et al. 1999). Another widely used term is "mental health literacy", which is defined as the ability to gain access to, understand, and use information in ways which promote and maintain good health (Lauber et al. 2003). It refers to knowledge and beliefs about mental disorders which aid their recognition, management or prevention including the ability to recognise specific disorders knowing how to seek mental health information knowledge of risk factors and causes, of self-treatments, of professional help available, and attitudes that promote recognition and appropriate help-seeking (Jorm et al. 1997).

Regarding the aims of community health, mental health promotion aims to raise the position of mental health in the scale of values of individuals, families and societies, so that decisions taken by government and business improve rather than compromise the population's mental health, and allow informed choices about their behaviour (Herrman & Jané-Llopis 2005). Education replaces stigma with more accurate conceptions about the disorders through didactic programmes (Corrigan et al. 2002). Moreover, modifying public perceptions about mental illness could promote policy changes favourable to psychiatry (Austin & Husted 1998).

Wei and Kutcher (2012) argue that school-based mental health programming needs to be considered as part of usual child and youth mental health policies and plans. Along with this, W.H.O. (2004c) encourages governments (National Ministries of Health) to develop mental health programmes which, will include interventions for mental health promotion. There is some evidence that education may reduce the stigma of psychiatric

illness (Corrigan et al. 2005). Several studies have shown participation in brief courses on mental illness and treatment lead to improved attitudes about people with mental illness (Corrigan et al. 2002). In Athens (Greece) a mental health education programme was implemented in which different members of the community participated, with a positive feedback from the participants who benefited from this intervention (Vassiliadou et al. 2004). Another study in Japan suggests that an educational program is effective in reducing stigma attached to mental illness and disorder (Tanaka et al. 2003). In 1996, the World Psychiatric Association undertook a global programme to address the stigma and discrimination because of schizophrenia targeting different groups of the community in several countries across the world (Sartorius & Schulze 2005). Gale (2001) supports that mental health promotion can benefit everyone, even those who have not been experiencing mental health problems, and more recently, Puolakka et al. (2011) support that mental health promotion in schools has risen as a very important developing area in public health services with an international need. These interventions should be implemented within different settings of the health care system and outside of it, e.g. in schools.

School health education is concerned with developing, implementing and evaluating planned instructional programmes and activities that favorably influence knowledge, attitudes, habits and practices (Modeste & Tamayose 2004). School plays an important role in health and social-emotional development (Hosman & Jane-Llopis 2005), mental health awareness can be taught in school (Brown & Bradley 2002) and mental health instruction should be highlighted in school health education (Lahtinen et al. 1999). **S**chools are convenient, as well as crucial settings for initiating action, since youth spend large amounts of time there (European Commission 2005), and education belongs to schools, since it is largely responsibility for the transmission of knowledge, values, cultures, and offering opportunities of social interaction for children and young people (Caldas de Almeida 2001). Mental health education should reflect the needs of young people (Woolfson et al. 2009). Previously, a W.H.O. (1995) expert committee on comprehensive school health education and promotion recommended that mental health education be part of a comprehensive school health programme. Schools provide an essential arena for health education (Lavin et al. 1992, Hagquist & Starrin 1997) since they are already involved in the process of affecting the lives of students, staff, parents and entire communities (Lavin et al. 1992). The school environments, as well as curriculum content, provide a good opportunity to disseminate information, foster good habits and raise children's awareness of mental health (British Medical Association 2006). Several authors have suggested that school based mental health is one way of tackling the stigma associated with mental health problems (Essler et al. 2006).

Despite, health education, mental health promotion and the prevention of mental health problems generally receive few curriculum hours (Hootman & King 2003). Kutcher et al. (2009) argue that mental health, which is a fundamental part of student health and well-being, still remains largely absent from the education agenda. Nevertheless, DeSocio et al. (2006) showed that children who participated in a mental health education programme realized a significant gain in their knowledge about mental

health and mental illness. Hence, the adolescents are a group towards which mental health educational interventions should be addressed.

2.3. Adolescents as a target group for mental health interventions

Adolescent mental health is essential for the building and maintenance of stable societies (W.H.O. 2005b). Today's adolescents are the future adults who through participation can have an impact on the quality of life of the whole community. Hence, adolescents having the cognitive level of understanding the terms of mental health and mental illness and being the future adults of our society have been chosen as the study group of this interventional study for the purposes of this thesis.

The stage of adolescence marks the transition from childhood to adulthood (Bastable 2003). Usually an adolescent becomes deeply aware of many life issues and questions relating to himself and others, to community and nation. The teenager wants to formulate his/her own answers rather than rely on parents or teachers' judgements as in the years of childhood (Pikunas 1976). Adolescence is a time of rapid advance in cognitive skills and intense acquisition of new information that establishes the basis for a productive adult life (Golub 2000). It is a time of great change, when young people often acquire lifetime habits and attitudes (Naidoo & Wills 2000). It has been found that young people are the proper target group for changing social attitudes because they are in a state of developing their attitudes (Tesser & Shaffer 1990). During this period, later attitudes about life are formed (Fitzgerald et al. 1995). Young people are at an age when they are developing views on a range of topics that will impact their future adult behaviour (Pinfold et al. 2005b).

Piaget termed this stage of cognitive development as the period of formal operations. Adolescents have attained a new, higher-order level of reasoning superior to earlier childhood thoughts; they are capable of abstract thought and complex logical reasoning described as propositional as opposed to syllogistic. Their reasoning is both inductive and deductive, and they are able to hypothesize and apply the principles of logic to situations never encountered before. Adolescents can conceptualise and internalise ideas, debate various points of view, understand cause and effect, comprehend complex explanations and respond appropriately to multiple-step directions. They are able to understand the concept of health and illness, the multiple causes of disease, the influence of variables on health status and the ideas associated with health promotion and disease prevention (Bastable 2003). At 14-15 years of age, many adolescents fully acquire formal thinking and propositional operations (Pikunas 1976).

Negative attitudes toward mental illness emerge early in childhood (Wahl 2002). Children grow up learning the social stereotypes which are assigned to particular social groups within their society often before they have any direct contact and experience with these groups (Augoustions et al. 1994). Regarding young people, the results of a study on sex differences towards mental illness of secondary school students showed that girls exhibited more benevolence than boys and boys held more stereotyping, restrictive, pessimistic and stigmatising attitudes (Ng & Chan 2000). Rose et al. (2007)

have found 250 labels used by 14 year old English students to stigmatise people with mental illness. Furthermore, a study showed that adolescents are more likely to describe a mentally ill person as dangerous and violent after reading news reports of persons with mental illness committing violent crimes, compared to adolescents who read a factual article about mental illness (Dietrich et al. 2006). Another study asked young persons to recall news stories about mental health problems during the past twelve months and they found that only a minority could recall this kind of stories, while, the most common stories recalled among others were those involving crime or violence (Morgan & Jorm 2009).

Finally, because the target group of this interventional study was adolescents, proper methods to be used in order to collect the data were identified by reviewing the literature. Literature supports that drawings can be used to understand how people see their world (Guillemin 2004) and they reflect the way children comprehend reality (Pappa 2006), as drawing allow a more subjective input and they better present the child's experience (Bendelow & Pridmore 1998). Drawings have been used by an earlier study among children in order to describe the attitudes towards mentally ill people (Poster et al. 1986). However, the researchers did not implement any intervention. A later study used pictures drawn by primary school children in order to test the attitudes towards mental illness and the impact of an educational intervention, but the data were collected only after the intervention (Shah 2004).

2.4. Summary of the literature review

Mental health is a basic component of health and it contributes to living a happy and fulfilled life. Mental health is defined by the W.H.O. (2011a) as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. On the other hand, mental illness refers to conditions that affect cognition, emotion, and thus, the everyday life of the person who suffers from a mental illness is negatively affected. Mental illnesses are described, diagnosed and experienced in different cultures and their prevalence is high in the whole world. Stigma is a reality for many people with a mental illness in addition to prejudice and discrimination against them, having a big impact on their daily lives.

Literature supports that adolescents are the ideal target group for mental health educational interventions, since they are at the proper cognitive level and schools are the best settings to be implementing these interventions. Although there is evidence that mental health education has a positive impact on the attitudes towards mental health and mental illness, the review of the literature did not identify many study interventions among adolescents and thus, this study covers this gap in the sphere of community mental health and it provides evidence for the development of health sciences by providing implications for practice and research.

3. PURPOSE OF THE STUDY

The purpose of this study was to explore perceptions of mental health and mental illness as well as the perceptions towards people with mental illness among adolescents. The *perception* refers to the way in which something is regarded, understood, or interpreted (Oxford Dictionaries 2013).

Secondly, as literature supports (e.g. Macdonald et al. 1996, Nutbeam 1996, Turunen et al. 1999) evaluation is an essential activity for any health promotion programme and therefore, the purpose of the study was also to examine the impact of a mental health educational intervention, which can refer to impact evaluation; the assessment of short-term immediate impact of a programme.

The study aims to evaluate the impact and test if a mental health educational intervention can be effective for changing into more positive perceptions towards mental health and mental illness. The ultimate goal of the study is to promote a better understanding of mental illness among adolescents, to increase awareness about mental health and mental illness and to provide information for (mental) health professionals internationally which will stimulate further mental health educational interventions among this target group. Awareness about mental health and mental illness, as wells as positive perceptions of mental health and mental illness can lead to improvement of community health in general.

The research questions addressed in this study are as follows:

- Identifying published studies on mental health educational interventions aiming at affecting the knowledge of and attitudes towards mental illness among adolescents (Chapter 2, Section 5.1 and Paper I) as well as the concepts related to this study (Chapter 2).

- Exploring the perceptions of mental health and mental illness among adolescents (Chapter 5 and Papers II-V).

1. What are the perceptions of mental health and mental illness among adolescents? (Section 5.2.1 and Papers II-III)

2. What are the perceptions about persons with mental illness among adolescents? (Section 5.2.2 and Papers IV-V)

- Evaluating the outcomes of an educational mental health intervention designed to incur positive changes in perceptions of mental health and mental illness (Chapter 5 and Papers II-V).

3. Do the perceptions of mental health and mental illness change after the mental health education intervention? (Section 5.2.1 and Papers II-III)

4. Do the perceptions towards persons with mental illness change after the mental health education intervention? (Section 5.2.2 and Papers IV-V)

The progress of the study is illustrated in Table 3.

Table 3. Progress of the study

Phase of the study	Paper	Aims	Sample	Methods	Data analysis
Phase I Literature Review 2004-todate	I	To identify educational interventions implemented among adolescents with the aim of affecting the knowledge and attitudes towards mental illness	Literature focused on intervention studies with the aim of affecting the knowledge and attitudes towards mental illness (n=15)	Medline, CINAHL and Psychinfo, from the beginning of the databases until today	Systematic literature review
Phase II Intervention and Evaluation phase 2005-2013	II	To explore the perceptions of mental health among adolescents and to examine the extent to which these perceptions changed after the educational mental health intervention	Pupils (n=59) Experimental group (n=28) Comparison group (n=31)	Interviews	Content analysis
	III	To explore the perceptions of mental illness among adolescents and to examine the extent to which these perceptions changed after the educational mental health intervention	Pupils (n=59) Experimental group (n=28) Comparison group (n=31)	Interviews	Content analysis
	IV	To explore the perceptions of mentally ill people among adolescents and to examine the extent to which these perceptions changed after the educational mental health intervention	Pupils (n=59) Experimental group (n=28) Comparison group (n=31)	Drawings	Content analysis
	V	To explore the perceptions about mentally ill people among adolescents and to examine the extent to which these perceptions changed after the educational mental health intervention	Pupils (n=59) Experimental group (n=28) Comparison group (n=31)	O.M.I. Scale	Descriptive statistics T-test chi-square tests ANOVA measurements
Summary 2013-2014	Summary	To summarise the study findings and provide implications for practice and future research	All data above	All above methods	All above

4. MATERIALS AND METHODS

4.1. Literature review

The available data bases were used in order to perform the review of the literature. Furthermore, the internet was used in order to identify policy documents from the EU and the W.H.O. or other bodies. The guidelines for conducting systematic reviews set by Glasziou et al. (2004) have been used for this review.

4.2. Setting and participants

Setting

The study took place in two secondary schools around Athens, Greece. There are 460 public secondary schools throughout the greater Athens area for pupils 12-15 years of age (Education Research Centre 2006). All of the schools follow the same national curriculum (Ministry of Education and Religious Affairs 2014) as is mandated for all public schools in Greece (World Education Encyclopedia 2002). The two schools were randomly selected by a lottery draw and they are located in two different districts of Athens in which the pupils were from similar socioeconomic backgrounds. The two schools are not located in exceptional different leaving areas of Athens. Sociodemographic characteristics were collected in order to ensure that the two groups are comparable.

Schools are key settings for educational interventions targeting adolescents and were selected as the settings for this intervention study. Education is involved at all levels since schools are the primary locus of activity (Weist 2001). In addition, schools play a very important role in promoting mental health, since adolescents spend so much time at school (Johansson & Ehnfors 2006).

School health services in Greece began in 1910 (Alexandropoulou et al. 2010). School Health offices located at every region provide school health care primarily provided by Health Visitors. One of the school health services goals is to "develop and implement health education programmes" in particular (Law 2519/1997). According to the Health Visitor's professional rights "Health Visitors focusing upon Primary Health Care, give emphasis, among others, on the provision of health care at the school setting and they practice school health" (Presidential Decree 351/1989). In general, in Greece, health education and promotion in schools is part of the School Health Education Curriculum and is delivered as Health Education programmes (Soultatou et al. 2011).

Participants

Power analysis was calculated in order to ensure that the sample was adequate. Power analysis methodology represents a design, with two levels of the between-subject factor of two study groups and two levels of the within-subjects factor of time. A

repeated measures ANOVA power analysis was conducted. The effect size for this calculation used the ratio of the standard deviation of the effects for a particular factor or interaction and the standard deviation of within-subject effects. The power analysis was conducted for a single, two-group between-subjects factor, and a single within-subjects factor assessed over two time points. For this design, 60 participants (30/study group) achieves a power of 0.90 for the between-subjects main effect at an effect size of 0.37; a power of 0.95 for the within-subjects main effect at an effect size of 0.24; and a power of 0.95 for the interaction effect at an effect size of 0.24. Furthermore, the concept of saturation was followed as literature (e.g. Mason 2010) supports for the qualitative studies, that is, when the collection of new data does not shed any further light on the issue under investigation.

Hence, fifty-nine pupils aged 13-16 years old participated in this study. There were two groups of participants, and we randomly selected the schools for the experimental group and the comparison group. The experimental group consisted of 28 pupils who participated in the educational mental health intervention. The comparison group, consisting of 31 participants, did not receive any health education intervention; instead they received the standard education. Each group was made up of participants from one of the two schools in order to avoid contamination. Two participants dropped out of each group after the intervention.

All of the participants were born and raised in Athens. Table 4 presents the demographic characteristics of the participants and Table 5 their parents' educational level and their previous contact with a mentally ill person. The mean age was 14.3 years (SD=1.0 years) for the comparison and 13.7 years (SD=0.5 years) for the experimental group. The two groups of adolescents were similar in terms of sex and educational level of the parents. Also, the same proportion of adolescents had ever had contact with a mentally ill person, which in Greek language refers to persons who are patients and suffer from an illness (not disorders in general).

Table 4. Demographic characteristics for experimental and comparison group

	Experimental group	**Comparison group**	
	N(%)	**N(%)**	**P***
Age (years)			
13	9(34.6)	6(20.7)	0.247
14-16	17(65.4)	23(79.3)	
Gender			
Males	11(42.3)	13(44.8)	0.851
Females	15(57.7)	16(55.2)	

*chi-square test

Table 5. Additional background participants' characteristics

	Experimental group	Comparison group	
	N(%)	N(%)	P*
Contact with a mentally ill person			
No	17(65.4)	17(58.6)	0.606
Yes	9(34.6)	12(41.4)	
Educational level of the mother (years)			
≤12 years	14(53.8)	16(55.2)	0.921
>12 years	12(46.2)	13(44.8)	
Educational level of the father (years)			
≤12 years	14(53.8)	15(51.7)	0.875
>12 years	12(46.2)	14(48.3)	
Highest educational level of the parents			
≤12 years	11(42.3)	13(44.8)	0.851
>12 years	15(57.7)	16(55.2)	

*chi-square test

4.3. Data collection

First**,** a systematic literature review was conducted using Medline, CINAHL and PsycINFO, from the beginning of the databases until 2008 (I). This literature review was updated for the purposes of this thesis until today. The following keywords were used in the searches: mental health, health promotion, health education, school health education, school health, schools, secondary schools, students, high school. The inclusion criteria for the articles were the following:

1. include a mental health educational intervention, aiming to affect the level of knowledge and the attitudes towards and about mental illness,
2. include the outcomes for the mental health educational interventions conducted,
3. be written in English,
4. have secondary school pupils aged 12–18 years as participants (also high school would not be excluded), and
5. include any methodological design.

Next, appropriate instruments to evaluate the impact of the educational mental health intervention were identified. Additionally, other data collection methods were identified, namely, interviews and drawings, based on the literature. Finally, the mental health educational intervention was designed based on the literature.

The identified instrument Opinions about Mental Illness (O.M.I.) scale was one of the tools used to collect data (V). The aims of this study include exploring the perceptions of mental illness; however, this instrument has been used as one of the methods in order to explore more specifically what the participants think. The O.M.I. scale was

originally developed by Cohen and Struening (1962) and standardised for the Greek population by Madianos et al. (1987). The Greek version of the O.M.I. scale consists of 51 Likert format items and yields five factors:

A. Social Discrimination, includes 16 items (total scoring ranging from -14 to 66, more positive opinion is -14)

B. Social Restriction, includes 13 items (total scoring ranging from - 4 to 61, more positive opinion is - 4)

C. Social Care, includes 8 items (total scoring ranging from 30 to -10, more positive opinion is 30)

D. Social Integration, includes 8 items (total scoring ranging from 33 to -7, more positive opinion is 33)

E. Etiology, includes 6 items (total scoring ranging from 26 to – 4, more positive opinion is 26).

Individual interviews were also conducted in the Greek language with open-ended questions (II, III). Interviews were chosen in order to know all possible ways in which the respondent views (or experience) phenomena (Parahoo 2006). In that way the participants own ideas would be seen and not answers that are already presented as in the instrument used. The researcher asked the participants to present themselves to the classroom where the interviews took place privately with no other participant present. The researcher introduced herself at the first interview. First, she asked the participants to answer background information questions and then moved to the main research questions. The interviews were digitally recorded throughout their whole duration. The questions of the interviews were:

What is mental health? Could you describe a mentally healthy person?
What is mental illness? Could you describe a person with mental illness?

The instrument and the interviews also included pupils' background data. Additionally, the participants were asked to provide a drawing relative to the study; that is they were asked to draw a mentally ill person (IV). Taking under consideration the age of the participants, drawings were used as a data collection method because they reflect the way children comprehend reality (Pappa 2006), and they can be used as ways of understanding how people see their world (Guillemin 2004). Woodhouse (2012) encourages researchers to use visual methodology, since it "reveals information that perhaps would not be elicited by interviews or questionnaires". Furthermore, literature supports that using drawings as a method allows more subjective input and it is able to represent better the child's lived experience than by the use of more traditional and pre-determined a priori adult categories (Bendelow & Pridmore 1998). Drawings have been used previously in various studies among children (Poster et al. 1986, Pelander et al. 2007, Slusarska et al. 2004).

Before collecting the data, the researcher co-operated with the principals of the schools and the teaching staff in order to arrange a suitable timetable for conducting the

interviews and the intervention (Section 4.3). The data were collected in Greek in 2005 twice from both groups; once before and once after the educational mental health intervention. All data collection was conducted in a classroom by the researcher. The first, baseline, data collection took place during the same period of time for both groups before the intervention, which lasted one week. The second data collection started the next day of the intervention, during the same period of time for both groups and lasted one week. The individual interviews included the same open-ended questions before and after the intervention, the O.M.I. scale was administered before and after the intervention, as well as the same drawing was asked to be drawn from the participants. The study process and the data collection are illustrated in the figure below.

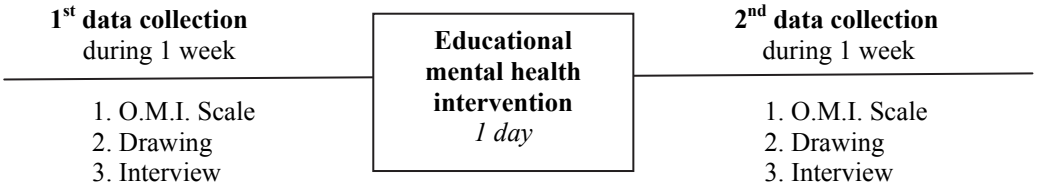

Figure 1. Study process and the data collection

4.4. Mental Health Educational Intervention

The mental health educational intervention was developed in order to increase awareness of mental health and mental illness, and to promote positive understanding of these concepts as well as towards people with mental illness among adolescents.

The mental health educational intervention was designed by the researcher for this study using definitions, concepts, and evidence from the existing literature. The studies identified by the literature review were used for this purpose (Schulze et al. 2003; Ng & Chan 2002). In addition to other material which included documents, booklets, fact sheets or information brochures by national and international (mental health) bodies such as:

- the W.H.O. Mental Health sector: http://www.who.int/mental_health/en/
- the Greek University Mental Health Research Institute: http://www.epipsi.gr/index.php
- the Greek Psychiatric Reform Programme "Psychargos": http://www.psychargos.gov.gr/
- the National Mental Health Strategy of Australia http://www.health.gov.au/hsdd/mentalhe
- the US National Institute of Mental Health: http://www.nimh.nih.gov/index.shtml
- the UK Institute of Mental Health: http://www.institutemh.org.uk/

The intervention was implemented for the experimental group after the baseline data collection was completed. It was conducted in a classroom by the researcher. It lasted

for two teaching hours (including the discussion) during a standard school day, and was included as part of the general curriculum.

Efforts were taken to make the content comprehensible. It is supported that mental health education should reflect the needs of young people and age preferences should be considered (Woolfston et al. 2009). Thus, the language used was adapted to fit the age and cognitive level of the pupils and professional terms were not used. Table 6 presents the content of the mental health educational intervention. The teaching methods used were lecture and discussion with visual aids (slides) showing the key points in order to support the education, as health education methodology literature supports (e.g. Gilbert et al. 2011). First, the researcher/educator introduced herself and presented the content of the mental health education session. Papers and pencils were provided to all participants in case they wished to take notes or write questions for later clarification. The lecture gave the opportunity to provide factual information in a logical sequence. Because of the long duration of the lecture, the educator summarised and reviewed the key points. Participants were encouraged to ask questions at any time. Additionally, the educator stopped several times to verify that the participants understood what was said in order to control the understanding based on the evaluation of participants themselves.

Table 6. Content of the Mental Health Educational Intervention

Subjects	Content	Duration
Introduction	- educator	5 min.
	- content of education	
Mental health	- definition (what is mental health)	10-15 min.
	- description - experience of mental health	
	- mental health promotion	
Mental illness	- definition (what is mental illness)	15-20 min.
	- bipolar mood disorder	
	- depression	
	- schizophrenia	
	- cause (biological, psychological, social factors)	
	- how patients experience mental illness (symptoms, etc)	
	- treatment (medication, psychotherapy, supportive counselling, rehabilitation interventions)	
Myths & Truths	Myths and truths about mental health and mental illness	10-15 min.
Messages to take home	Some things to remember (help-seeking, facing difficulties, mental health promotion, etc)	
Mental health care services	Mental health care services in Athens	5 min.
	contact information of available services especially close to them and for adolescents	
	where to find this contact information if needed in the future	
Discussion	Questions-answers	20-30 min.

4.5. Data analysis

For conducting the systematic literature review all previously described inclusion criteria were followed (I). When the search of the databases was completed, the articles were analysed in order to provide results according to their aims, the type of mental health education implemented, the instrumentation used and their outcomes.

Collected data were analysed first, in order to explore the perceptions of mental health and mental illness among adolescents and second in order to evaluate the outcomes of the educational mental health intervention. Outcomes evaluation aims to examine the effects of the interventions upon recipients (Wiggins et al. 2006).

Content analysis was used for the analysis of the interviews (open-ended questions). Content analysis refers to a technique for systematically analysing the content of communication, whether verbal, written or pictorial (Modeste & Tamayose 2004). The digitally recorded data from the interviews were transcribed verbatim in Greek in MS Word, as it is supported by the literature; the transcription of recordings of structured interviews is a pre-requisite to qualitative analysis (Morse & Morse 1996). The unit of analysis was the whole interviews as the literature (Graneheim & Lundman 2004) suggests. The analysis strategy used was inductive content analysis using the techniques described by Strauss (1987). The use of inductive content analysis is recommended when there are no previous studies dealing with the phenomenon or when it is fragmented (Elo & Kyngäs 2008) as is the case for this study. Emerging categories, which illustrate the participants' perception of mental health, were developed after repeated and rigorous reading of the transcripts. The researchers read the interviews several times in order to become familiar with the data.

First, the data was open coded (Strauss & Corbin 1990) based on the content of the interviews. This phase included unrestricted coding of the data (the participants' answers), which was tentative at this point. Then, the categories were formed using words taken directly from the participants' responses. This was done through labelling in order to group together similar responses. Finally, emerging categories were developed by combining similar content areas so as to reduce the number of categories by including some of them within similar, yet broader, categories. An example of the categories' establishing can be seen in Figure 2.

The drawings were analysed by inductive content analysis (Miles & Huberman 2001) and common themes from the drawings were generated. The adolescents' views of the person with mental illness in their drawings were explored. The drawings are not interpreted as they are not used as a diagnostic or therapeutic tool. The content analysis of the drawings included:

- the setting in which the mentally ill persons are drawn (eg, psychiatric hospital),
- persons and objects that appear in the drawings (e.g. where there other persons or objects drawn as well?),

- mentally ill person's placement in the drawing (eg in regards to others or if alone in which place of the paper),
- the appearance of the drawn persons (e.g. how their body was drawn, their size in regards to other people, their clothing),
- their emotional state-mood expressions (e.g. face expressions, tears),
- their activities (e.g. doing something, talking).

First, drawings were examined one by one and notes were made about each one regarding where that mentally ill was drawn, what else is also drawn, his/her placement, how he/she was drawn and what he/she was doing. Next, the drawings that were identified to belong together based on the characteristics that depicted according to the analysis described above, were put into the same groups.

Statistical methods were used for the analysis of the structured quantitative data (O.M.I. scale). Continuous variables are expressed with mean and standard deviation (SD). Categorical variables are presented with absolute and relative frequencies. For the comparison of proportions chi-square tests were used. For the comparison of study variables between the experimental and comparison group the participants' t-test was computed. Differences in changes of O.M.I. factors during the follow up period between two groups were evaluated using repeated measurements analysis of variance (ANOVA). In addition, the O.M.I. scores changes were also compared in regards to sex, educational level of the parents and in relation to previous contact with a mentally ill person. All p values reported are two-tailed. Statistical significance was set at $p=0.05$ and analyses were conducted using SPSS statistical software (version 18.0).

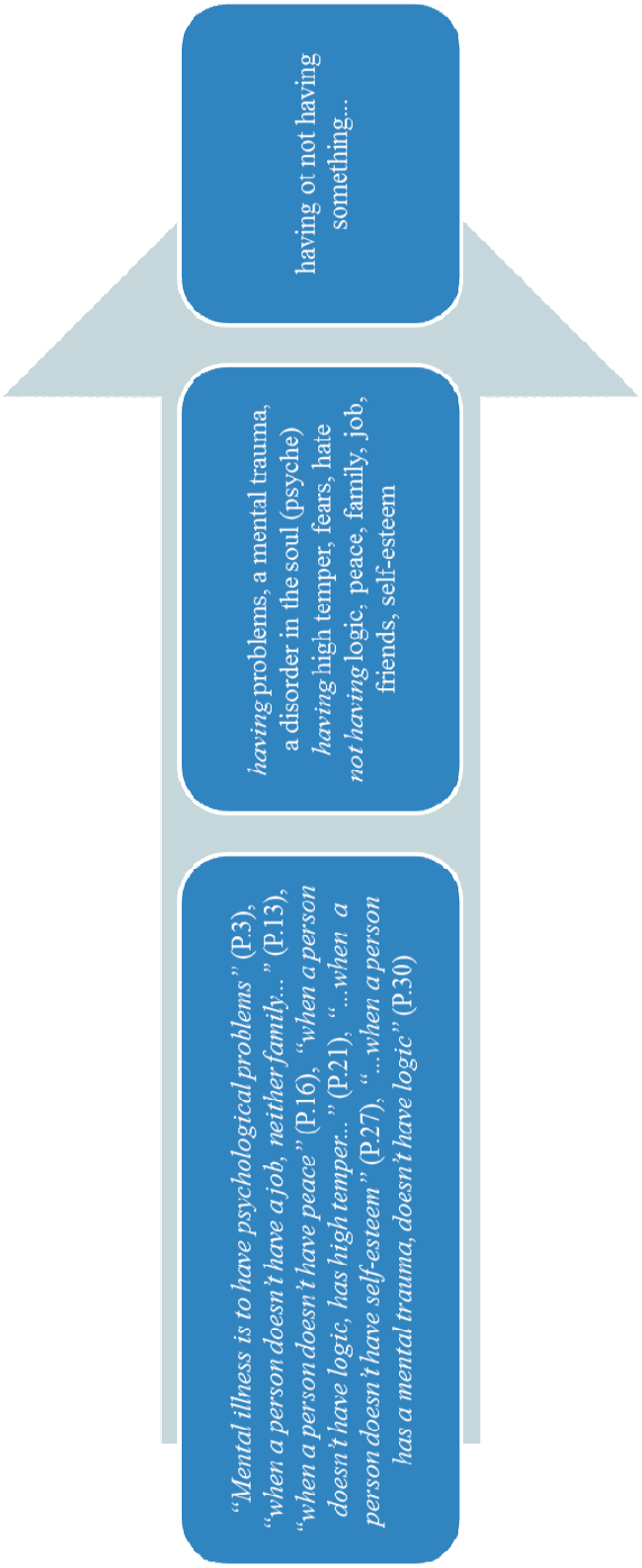

Figure 2. Example of emerged categories
(P.16= identification number of the participant)

4.6. Ethical considerations

During all phases of the study, current principles and standards were followed for conducting an ethically sound research (ICN 1996, Orb et al. 2000, Parahoo 2006, World Medical Association 2008) in full accordance with the present legislation concerning ethical review of scientific studies in Greece. The study included two phases:

In the **first phase,** the systematic literature review was conducted. There were no ethical issues in this phase. Potential bias in the literature review process were avoided by including all articles identified based on the inclusion criteria.

In the **second phase,** ethical approval and permission for conducting the study was granted by the Pedagogical Institute - Department of Research, Documentation and Educational Technology, (today The Institute of Educational Policy) of the Greek Ministry of National Education and Religious Affairs (Protocol Number 52298/Γ_7 – 26.05.05). Since the participants were under 18 years old, and the literature supports that in research with children consent should be obtained from parents/guardians and also from the children themselves (Holloway & Wheeler 1995), written informed consent forms were signed by both the participants and their parent or guardian.

Information concerning the research process, its objectives and how the results would be used in the future was provided both orally and in writing for potential participants and their parents/guardians. Participation was voluntary, and no identifying information has been used, so as to ensure the anonymity and confidentiality of the participant. Finally, the participants had the right to withdraw from the study at any time.

The data were analysed confidentially, and were not released to any outside party. Data were handled in such a way that the identities or perceptions of individual subjects could not be identified in any written report.

5. RESULTS

The results of this study are reported according to the research questions. The first phase includes the systematic literature review (I). Literature has been reviewed again in order to support the background and the results of the study. In the second phase, the perceptions of mental health and mental illness among adolescents and the impact of the educational mental health intervention on them are explored (II, III). These results are based on data collected by interviews.

Next, there is a focus on the person with mental illness with respect to the perceptions adolescents have towards mentally ill people as well as the impact of the educational mental health intervention (IV, V). The perceptions about persons with mental illness are based on data collected from drawings and the O.M.I. scale.

5.1. Mental health educational interventions

The systematic literature review identified fifteen studies in total, twelve in the first literature review (I) and three in the updated one (Chapter 2). Studies focused on the impact of mental health educational interventions among adolescents, and on the knowledge and attitudes towards mental illness. The results of the reviewed studies demonstrate that mental health educational interventions increase adolescents' knowledge about mental illness and reduce their negative attitudes towards people with mental illness. However, as a result of their limited number and their differences with respect to methodologies concerning the implemented interventions and the data collection, the collective insights obtained from these studies are very scattered. This limits their overall contribution to the development of health sciences. Therefore, the current study covers this gap using both qualitative and quantitative methods that are crucial to address the question how adolescents perceive mental health and mental illness, and how these are impacted by an educational intervention which will lead to suggestions for practice and research implications.

5.2. Mental Health and Mental Illness

The participants in the study provided descriptions of mental health and mental illness before and after the intervention using descriptions in the same way for both terms, as they are presented in the first part of the section 5.2.1. However, some categories are only present in one of the two terms (mental health or mental illness) and there are also descriptions that appear only after the intervention among the experimental group or baseline descriptions that do not appear at all after the intervention among the experimental group. There are also findings depicted from the drawings and the O.M.I. scale, presented in the section 5.2.2.

5.2.1. Perceptions of mental health and mental illness among adolescents and changes after the intervention

The overall description of mental health in the interviews included several dimensions among the participating pupils of both groups before and after the mental health educational intervention. The emerged categories of the perceptions of mental health are described in Paper III and the perceptions of mental illness are described in Paper II.

The emerged categories are presented together with verbatim extracts from the participants' interviews. The descriptions of the participants are presented in their own words, because it is important to show how they describe mental health even if what they say is not always grammatically correct. Quotations from the participants' answers are provided, since the literature supports that this increases the trustworthiness of the study and provides the readers in sight as to how the original data categories are formulated (Sandelowski 1993).

Figure 3 summarises the results from the data collected from the interviews. More details about the participants' responses of both groups before and after the intervention can be seen in the Appendices 3 and 4. Participants used the same words to describe mental health and mental illness and these are presented first, followed by the responses which are describing mental health and mental illness in different ways, and finally the responses that appear only after the mental health educational intervention and only among the experimental group participants.

Participants described mental health and mental illness within the context of being or not being. Before the intervention the participants described mental health as being in peace of mind, in peace in soul (psyche), logical, happy, normal/ordinary, serious, calm, social, satisfied, (psychologically) well (with oneself)" and not being ill, crazy, introverted, or afraid. While, on the other hand, they described mental illness as being isolated, not social, closed to oneself, lonely, in another world, aggressive and not well in mind. For example:

"(Mental health is) that you are at peace in your psyche (soul)*."* (Participant 20)*,*
"a mentally healthy person is to be logical…" (P.35)*,*
"…to be well with yourself…" (P. 52)*,*
"…when someone is not crazy." (P. 10),
"(Mental illness) is not to be in logic…and be in another world and crazy" (P.1),
"…to be isolated, not social, closed to oneself" (P.5),
"when a person is not well in mind" (P.11).

After the intervention, participants among the experimental group, in their descriptions of mental health also included "being happy or sad, depending on the moment". They no longer described mental health as "being in peace of mind…to be logical, normal, ordinary, or satisfied". There was a decrease in the number of participants who stated that mental health included "being social, or not being mentally ill". Regarding their description about mental illness, the experimental group participants offered fewer

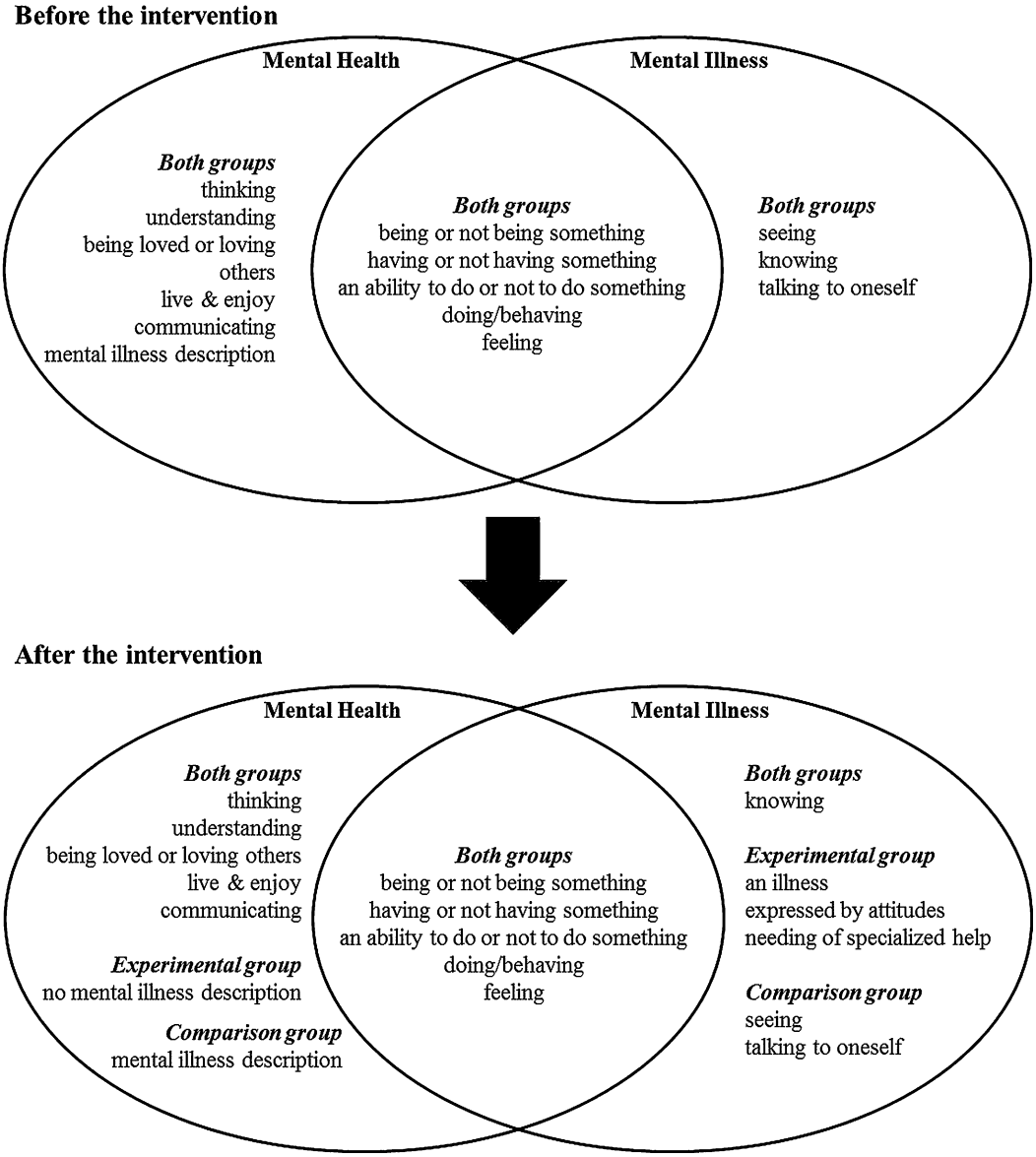

Figure 3. Perceptions of mental health and mental illness before and after the intervention

responses that included elements of mental illness as "being in a state of...". Their responses included three new descriptions; being distant, that any one of us could possibly be mentally ill and that a mentally ill person is afraid of rejection. Moreover, several participants from the experimental group said that mentally ill people are not dangerous and that they are not so different/special. The comparison group did not show significant differences after the intervention.

Participants defined mental health and mental illness, before the intervention, within the context of having or not having something. They described mental health as "to have a job, a normal life, a home, a family, his/her own opinions", and "not having (psychological) problems or stress, not having fights or committed crimes, does not have a strong temper or have depression". They described mental illness as having or not having something and the dominant description involved having psychological or other problems. As participants described:

"Mental health is when somebody does not have psychological problems, does not have very much stress… [a person who] hasn't committed any crimes…" (P.3),
"…[when a person] doesn't have a strong temper…" (P.21),
"(Mental illness) is to have psychological problems" (P.3),
"when a person doesn't have a job, neither family…" (P.13),
"when a person doesn't have peace" (P.16),
"when a person doesn't have logic, has high temper…" (P.21),
"…when a person doesn't have self-esteem" (P. 27),
"…when a person has a mental trauma, doesn't have logic" (P.30).

After the intervention, among the experimental group mental health perceptions changed, and including "*having friends and self confidence*", while, there was no discussion about "*not having fights, or not having committed crimes, not having a strong temper, or not having depression*". In the same group, six of the participants, from 14 before the intervention, described mental illness as having problems. Additionally, two participants described mental illness as having a disorder of the soul (psyche), while before the intervention, only one participant described mental illness in this way. Furthermore, the participants included descriptions which were not mentioned before the intervention: "*mental illness is having an illness and that it involves having extra stress, displaying extra sadness and having a symptom"*. Finally, in terms of the responses about *"not having something"*, after the intervention several of the experimental group participants only mentioned *"not having logic"* and *"not having friends"* in their descriptions of mental illness. While, there were minimal changes in the responses of the comparison group at the second interview.

Before the intervention, the participants conceived of mental health as an ability to do or not to do something and mental illness as not being able to do certain things. As participants described:

"(Mental health) is when someone is able to make his own decisions for himself/ herself." (P.8),
"…not doing various crazy things…" (P.26),
"that some person can live on his own, can judge, well, that…" (P. 41),

"(Mental illness) is not to get well with other people" (P. 4),
" when a person cannot get over something" (P.9),
" when a person is not able to do all his/her activities and live as the others do"(P.12),
"…when a person is not able to communicate properly…" (P.26),
"…when a person is not able to make decisions…" (P. 29),
"…when a person is not able to control his/her anger or temper…" (P.32),
"…when a person is not able to understand…" (P.34).

However, after the intervention, participants in the experimental group changed their description of mental health to include "*the ability to talk about one's problems, to face one's problems, to perform one's activities normally*", which were not present before the intervention. Also, it is interesting to note that after the intervention, there is no mention of *"not doing crazy things, or to make naive mistakes"*. They also described mental illness differently; not including all the same elements that they had before the intervention, while, there were two new responses; mental illness as not being able to control one's feelings and not being able to do all of one's activities. Among the comparison group, there was little change after the intervention in their understanding of mental health.

Before the intervention, participants explained mental health as behaving "*normally or logically*", and mental illness as doing something or behaving in some way. For example:

"(mental illness) is to do things that one doesn't understand, usually doing crazy things" (P.1),
"…when a person does things that are not right…" (P.12),
"when a person behaves strange" (P.21),
"…when a person does things out of one's will (doesn't control them)" (P.30).

On the other hand, after the intervention, none of the participants in the interventional group included normal or logical behaviour in their description of mental health. There were few differences among the experimental group participants in the ways they described mental illness; two of them stated that mental illness involves behaving differently, which was not included in their responses prior to the intervention. None of the participants described mental illness as doing crazy things or doing things that are crazy or not quite normal, right or usual. Moreover, although the responses among the comparison group are similar, there were few differences among the experimental group participants in the ways they described mental illness and there was a slight increase among those in the comparison group who described behaving normally as an aspect of mental health after the intervention.

Both before and after the intervention, participants expressed mental health as feeling "*well about oneself and not...[feeling] isolated*". Before the intervention, participants also described mental illness in terms of the feelings of a mentally ill person. However, after the intervention, the experimental group participants described mental illness as feeling different, while none of the participants of the comparison group included any elements in terms of feelings.

However, not all responses were similar when describing mental health and mental illness, there were descriptions using different context for the mental health and the

mental illness concepts. Prior to the intervention, participants in both groups defined mental health as "*knowing [how] to think and thinking reasonably and not…[thinking about] things that do not exist*", "*to think bad thoughts*", while after the intervention, the experimental group participants described mental health as "thinking reasonably", while participants in the comparison group did not change their answers. Before the intervention, few participants included descriptions of "*living and enjoying oneself*", while after the intervention there was an increase in the number of participants in the experimental group who believed that mental health included living life to the fullest and enjoying life. Both before and after the intervention, participants included communication in their descriptions of mental health. After the intervention more pupils in the experimental group discussed communication, whereas in the comparison group, fewer students discussed communication.

Furthermore, there were descriptions which did not change after the intervention. Both before and after the intervention, expressed mental health as understanding "*what happens in the surrounding world*". Both before and after the intervention, participants explained mental health within the context of love, by describing mental health as:

"…when a person's heart is full of love from other people" (P.19)*,*
"…when a person loves others" (P.30).

Moreover, the ability of some participants in each group to describe mental health was not very good before the intervention. Instead of describing mental health, they in fact described mental illness. However, none of the participants in the interventional group confused mental health with mental illness after the intervention.

Regarding mental illness, participants, before the intervention, also defined mental illness as a person not knowing what is going on around them and not knowing what he or she is talking about or doing. However, after the intervention, only a few participants in the experimental group described mental illness as a person not knowing what is going on around them and not knowing what she/he is doing. There are still the same responses among the comparison group after the intervention.

There were also descriptions which were present only before the intervention, among the participants of the experimental group, while the comparison group kept those. That is, referring to mental illness as "seeing" everything in black and imagining things that are not based on reality. In the same way, before the intervention, participants in both groups stated that mental illness involves talking to oneself which was not present after the intervention among the experimental group.

Before the intervention only one of the participants included the diagnosis of schizophrenia in his description, this response was among the comparison group and it is also found after the intervention. After the intervention, several participants in the experimental group included in their description of mental illness such things as depression, schizophrenia or bipolar disorder. Furthermore, after the intervention some participants in the experimental group stated that mental illness is an illness that is no different from any other illness, or they described it as a physical illness, an illness that anyone is vulnerable to and an illness that can be managed.

Finally, there were descriptions that appear only after the intervention when only the participants in the experimental group expressed positive attitudes towards the mentally ill people, which they had not done before the intervention. They said that we should be friendly to them and that we should not be afraid of them, not behave differently towards them and not leave them in the margins. Furthermore, the same group, only after the intervention, described mental illness in terms of needing specialised help; in contrast, participants in the comparison group did not describe it in this way. For example, participants of the experimental group said:

(Mental illness is) *"needing medical advice and therapy"* (P.4),
"needing treatment" (P.5),
"needing treatment" (P.22).

5.2.2. Perceptions about persons with mental illness among adolescents and changes after the intervention

The adolescents' perceptions about people with mental illness were explored through drawings (IV) and the O.M.I. scale (V) which are presented below.

The drawings have given a perspective of the participants' perceptions about persons with mental illness (IV). Figure 4 presents briefly the findings and the changes found after the intervention. Drawings by both groups of participants show that a person with mental illness is expected to live in a psychiatric hospital. This is derived by drawings depicting a mentally ill person in a psychiatric hospital's room or in its yard. In more details, in the drawings there is drawn a simple room with bed, bedside-table, a lamp hanging from the ceiling. In some drawings there are windows as well, which some have bars, whereas one participant drew curtains. The yards of the hospitals are with trees, flowers and benches. In addition, the mentally ill persons are often drawn on the bed and in some drawings they are restrained as well. Thus, a mentally ill person is considered to be an ill person who needs to be hospitalised. On the other hand, there are several drawings in which the mentally ill person is drawn in a site somewhere outside. After the intervention the number of mentally ill persons who were drawn by the experimental group in a psychiatric hospital decreased, while there are no changes in the comparison group.

In the experimental group there were drawings that involved persons other than the mentally ill. These persons exhibited mostly negative features or were distant from the mentally ill persons, pointing to them and laughing at them, or in pairs holding hands. The drawings among the comparison group did not have a different content than those of the experimental group and their drawings remain the same after the intervention. However, after the intervention, in the experimental group, the drawings including other persons do not present any negative attitudes towards the mentally ill individual.

In the experimental group, the place a person with mental illness was drawn and their placement in relation to other persons drawn shows loneliness. There was a tendency to draw the mentally ill person alone, in the middle of the paper or near the edge of it. Isolation was also evident, as mentally ill persons were in boxes or behind bars, locked away, with guards outside. When the person with mental illness was drawn with others, they were distanced from the other persons who were together. The together groups

include families, couples, and crowds. Some were at the edge of the picture with their back turned away from, or looking above the mentally ill person. Thus, there seems to be a negative attitude towards mentally ill persons, and in particular, social distance from persons with mental illness. Among the comparison group, the same content as in the experimental group was depicted which were still present after the intervention. After the intervention, drawings of mentally ill people who were placed behind bars show changes in the participants' perception among the experimental group. After the intervention, they were not drawn in the same way, although they are still drawn alone or in distance with the others who were all together.

Both groups participants' drawings showed that mentally ill persons are different from others concerning their physical appearance. They are depicted with a square or round body and stick-like or cross-like bodies. The drawings involved faceless persons, and they are not drawn like whole persons. Like primitive pictures, the mentally ill are often drawn without legs and arms or hands have been also absent, probably because they cannot do anything. There is one drawing in the comparison group, where the mentally ill person is drawn as a face only (omitting the body). The mentally ill are also drawn taller and bigger than the others. Finally, two participants draw the mentally ill person sitting in a wheelchair. Moreover, they are presented in black or grey or in long white dresses, sometimes colourful and one drawn prison like clothes. Furthermore, their external appearance is drawn scruffy and neglected, and with unruly hair. They are drawn as men or women and sometimes they are drawn as abstract persons without recognisable gender characteristics. There were two drawings (one in each group) in which the mentally ill person is drawn as another person (Napoleon and popular singer). The same elements are seen in the drawings after the intervention among the comparison group, while, in the experimental group, regarding the gender, there are no drawings where the sex of the mentally ill person is not identified.

The mentally ill persons' emotional state and mood expressions are also different from the others as they are drawn from both groups of participants. Sadness and sorrow are present in the drawings, by drawing the mentally ill sad or crying (with red eyes). Thus, mentally ill persons are not happy persons, but persons who are suffering. The drawings did not differ after the intervention regarding emotions the mentally ill persons express.

In both groups, mentally ill persons have been portrayed engaging in activities. They were drawn as a static figure, or thinking or talking. They have been drawn thinking "black" (black thought clouds) or that people are pointing at them. They talk to themselves or other persons, and to animals or objects. They were saying things such as: "Don't leave me alone! I'm scared!", "I feel abandoned from everyone. Help me!", "I'm not bad! Don't reject me all of you!", "Why you left me? I can't stand it!". Through these drawings participants show the stigma that exists towards mentally ill persons. One picture involved the mentally ill person in a dangerous behaviour that was starting a fire, which shows the participant has very negative perceptions towards mentally ill persons. After the intervention, there were no drawings in the experimental group which involve the mentally ill person in dangerous activities such as starting a fire. However, both groups after the intervention, still show mentally ill persons thinking that people avoid them and that they were alone and helpless.

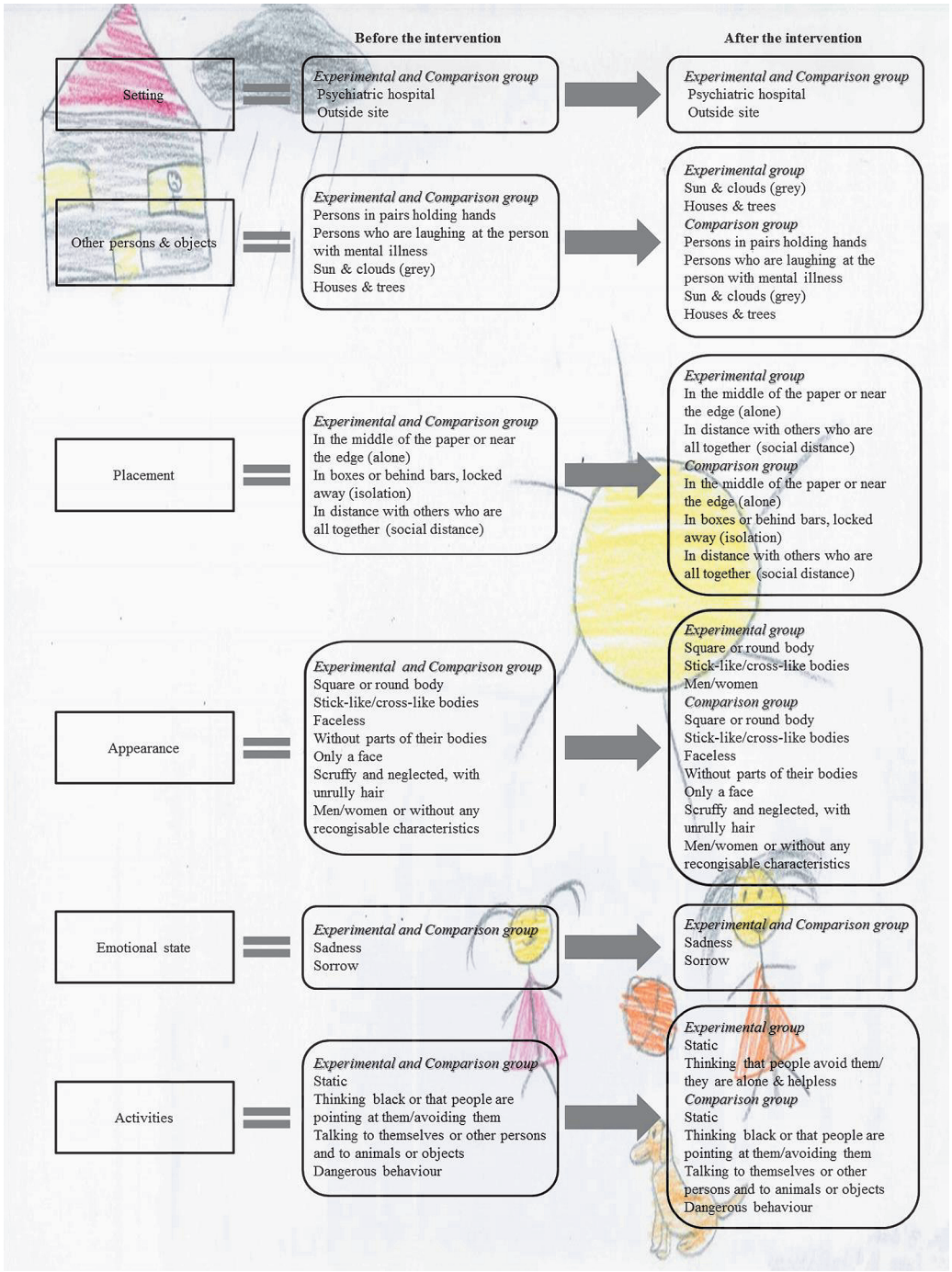

Figure 4. Perceptions about persons with mental illness through the participants' drawings (An example of a drawing is provided as background)

Finally, the results of the O.M.I. scale (V) showed positive changes at the post-test between the two groups and they can be seen in Table 7. The Greek version of the O.M.I. scale consists of 51 items with Likert format and yields five factors: A. Social Discrimination, B. Social Restriction, C. Social Care, D. Social Integration, and E. Etiology. However, for the purposes of the current study we have analysed the first four factors, since it was seen that the items included in the factor of Etiology were not very well perceived from the participants of the study which belong to a special age group of adolescence. Score on Social Discrimination factor significantly decreased from pre-test to post-test ($p<0.05$) in both study groups. Moreover, the experimental group had higher levels on Social Discrimination at pre-test compared to comparison's, nevertheless, this difference did not remain significant at post-test. No significant changes were found for Social Restriction factor for either study group. Score on Social Care and Social Integration factors had a significant increase only in the experimental group and the overall change during the post-test period was different between the experimental and comparison group, $p=0.049$ and $p=0.038$, respectively.

Table 7. Changes in O.M.I. factors at the post-test for the experimental and comparison group

	Pre-test	**Post-test**	**Change**		
	Mean±SD	**Mean±SD**	**Mean±SD**	**P***	**P‡**
Social Discrimination					
Comparison	29.1±9.1	25.6±8.9	-3.5±7.2	0.015	0.412
Experimental	33.4±6.3	28.3±7.6	-5.1±8.1	0.003	
P**	0.045	0.241			
Social Restriction					
Comparison	16.1±7.0	16.2±8.7	0.1±7.5	0.980	0.812
Experimental	19.1±5.5	19.7±10.1	0.6±9.3	0.755	
P**	0.087	0.171			
Social Care					
Comparison	22.7±5.0	22.6±4.6	- 0.1±3.4	0.957	0.049
Experimental	19.9±5.1	22.7±4.3	2.9±6.9	0.044	
P**	0.049	0.882			
Social Integration					
Comparison	14.0±5.7	15.2±5.1	1.2±6.0	0.278	0.038
Experimental	11.9±3.7	16.2±4.6	4.3±4.2	<0.001	
P**	0.119	0.473			

*p-value for time effect
** p-value for group effect
‡ p-value for time x group effect

Moreover, at the post-test for the experimental group according to sex (Table 8), it was found that Social Discrimination had a significant reduction only in females, but the overall change at the post-test was not different between boys and girls. Additionally, females had lower scores on Social Integration at pre-test and a significant increase at post-test, in contrast with males scores which did not change. It was interesting to find that Social Discrimination had a significant reduction only in adolescents whom their parents' educational level was 12 years or less and the difference in the overall change from pre-test according to the highest educational level of the parents was not statistically significant. Scores for Social Care at pre-test were significantly higher for those whose parents' educational level was 12 years or less. They also had a significant reduction post-test and a significant overall change (p=0.025) (Table 9). Furthermore, regarding the previous contact with a mentally ill person (Table 10), it was found that Social Discrimination decreased both in adolescents who had contact before with a mentally ill person and in those who had never had contact with a mentally ill person. At post-test in adolescents who had contact before with a mentally ill person had lower scores on the Social Discrimination factor. Adolescents who had contact before with a mentally ill person had lower scores on Social Restriction at pre-test. Social Integration increased significantly only in those who had never had contact with a mentally ill person.

Table 8. Changes in O.M.I. factors at the post-test for the experimental group according to sex

	Sex	**Pre-test Mean±SD**	**Post-test Mean±SD**	**Change Mean±SD**	**P***	**P‡**
Social Discrimination	Males	33.1±5.0	29.5±6.8	-3.5±9.0	0.234	0.371
	Females	34.4±7.4	27.4±8.2	-6.4±7.4	0.005	
	P**	0.588	0.505			
Social Restriction	Males	20.2±5.2	22.9±10.9	3.4±9.0	0.243	0.198
	Females	18.8±5.8	17.3±9.1	-1.5±9.4	0.553	
	P**	0.529	0.163			
Social Care	Males	18.4±5.6	22.4±5.4	4.1±8.7	0.149	0.458
	Females	20.9±4.5	23±3	2±5.4	0.176	
	P**	0.206	0.717			
Social Integration	Males	13.4±3.7	16±3.9	2.1±4.0	0.113	0.021
	Females	9.9±3.8	16.3±5.1	5.9±3.8	<0.001	
	P**	0.021	0.887			

*p-value for time effect
** p-value for group effect
‡ p-value for time x group effect

Table 9. Changes in O.M.I. factors at the post-test for the experimental group in relation to the parents' educational level

Educational level of the parents		Pre-test Mean±SD	Post-test Mean±SD	Change Mean±SD	P*	P‡
Social Discrimination	≤12 years	35.8±5.7	26.6±8.1	-8.6±8.3	0.007	0.067
	>12 years	32.2±6.7	29.5±7.1	-2.7±7.3	0.176	
	P**	0.143	0.329			
Social Restriction	≤12 years	19.2±4.9	18.1±11.3	-0.4±9.1	0.897	0.669
	>12 years	19.5±6.2	20.8±9.3	1.3±9.8	0.624	
	P**	0.888	0.509			
Social Care	≤12 years	18.9±5.3	24.9±2.4	6.4±5.9	0.005	0.025
	>12 years	20.5±5	20.9±4.4	0.3±6.7	0.849	
	P**	0.429	0.006			
Social Integration	≤12 years	11.5±4.8	15.9±3.5	3.2±4.4	0.037	0.271
	>12 years	11.3±3.6	16.3±5.3	5.0±4.1	<0.001	
	P**	0.865	0.820			

*p-value for time effect
** p-value for group effect
‡ p-value for time x group effect

Table 10. Changes in O.M.I. factors at the post-test for the experimental group in relation to contact with a mentally ill person

Contact with a mentally ill person		Pre-test Mean±SD	Post-test Mean±SD	Change Mean±SD	P*	P‡
Social Discrimination	No	35±5.8	30.4±7.0	-4.6±8.1	0.033	0.635
	Yes	32.1±7.1	24.2±7.3	-6.2±8.5	0.049	
	P**	0.246	0.045			
Social Restriction	No	21.1±5.1	22.2±9.5	1.1±9.4	0.631	0.693
	Yes	16.8±5.3	14.9±9.9	-0.4±9.7	0.894	
	P**	0.044	0.079			
Social Care	No	19.8±5.4	22.8±3.2	2.9±6.4	0.077	0.956
	Yes	19.9±4.6	22.7±5.4	2.8±8.2	0.338	
	P**	0.976	0.982			
Social Integration	No	11±3.6	16±4.9	5±4.0	<0.001	0.234
	Yes	12±5.0	16.4±4.1	2.9±4.6	0.098	
	P**	0.539	0.819			

*p-value for time effect
** p-value for group effect
‡ p-value for time x group effect

5.3. Summary of the results

The literature has supported that mental health educational interventions have a positive impact on knowledge and attitudes towards mental illness among adolescents (I). This study supports and extends previous results. It provides more details regarding the perceptions of adolescents about mental health and mental illness as well as their views about persons with mental illness. The data collected by using different, more inclusive methods provides rich results on the perceptions of mental health and mental illness and the persons with mental illness as well as the impact of the mental health education.

The participants have described mental health and mental illness with the same patterns, namely, being or not being something, having or not having something, being able to or having the ability to, doing or behaving (II,III). For example, as it is presented above in the results sector, mental health can be something that you have and on the other hand mental illness can be something that you do not have or vice versa. The findings after the intervention demonstrated that even though the length of the intervention was short, there is a clear positive impact. That is, for example, that mental illness after the intervention was expressed by attitudes or by needing. Moreover, the participants presented their perceptions through the drawings in the same terms of attitudes or feelings (IV), as they did at the interviews. Finally, the perceptions towards people with mental illness are expressed through Social Care, Social Restriction, Social Discrimination and Social Integration, with positive changes after the mental health intervention (V). Hence, the study showed that mental health education has a positive impact on the participants' perceptions about mental health and mental illness and their perceptions about persons with mental illness.

6. DISCUSSION

The purpose of the study was to explore the adolescents' perceptions towards mental health and illness and to evaluate the impact of an educational mental health intervention. The literature review showed a lack of studies about this issue and highlights the need of mental health educational interventions among adolescents.

The study managed to reach the purpose for which it was designed. The results of this study provide useful new knowledge for future mental health community interventions, research, and practice implementations. Publishing the results of the study made possible to disseminate the new knowledge produced which in turn leads to awareness of the issues of mental health education among the group of adolescents.

In the present chapter, trustworthiness, validity and reliability of the study are discussed (Section 6.1). The main findings are discussed in relation to the earlier studies (Section 6.2), and finally, conclusions (Section 6.3) and implications for practice and education (Section 6.4 and 6.5 respectively), as well as suggestions for future research (Section 6.6) are presented.

6.1. Validity, reliability and trustworthiness of the study

Validity refers to whether a measurement instrument accurately measures what it is supposed to measure. When a measurement is valid, it truly reflects the concept it is supposed to measure (LoBiond-Wood & Haber 1994). Reliability represents the consistency of the measure obtained (Polit & Hungler 1999, Polit & Beck 2010). However, validity and reliability are a matter of degree rather than all-or-nothing, or either-or questions (Burns & Grove 2009).

For this study, a validated standardized instrument was used as one tool to collect data, which met validity and reliability criteria. Content validity reflects the extent to which the instrument and its items include all the major elements relevant to the construct being measured (Burns & Grove 2009). The instrument used in the current study was a validated tool; the Opinion about Mental Illness (O.M.I.) scale by Cohen and Struening (1962) which has been standardized for the Greek population by Madianos et al. (1987).

The reliability of O.M.I. scale was tested by using Cronbach's alpha coefficient which provides information about the instrument's consistency. The higher the reliability coefficient, the more consistent the instrument is (Polit & Beck 2008). For already tested existing instruments, a score of at least 0.70 is required (Burns & Grove 2009). In the current study, the Cronbach's alpha coefficient for all four factors of the O.M.I. scale exceeds the minimum of 0.70 indicating acceptable consistency.

In addition, this study used qualitative approaches for collecting data. Validity and reliability for the qualitative data is examined through trustworthiness, which includes

credibility, dependability and transferability (Graneheim & Lundman 2004, Burns & Grove 2005, Polit & Beck 2010). Thus, in the current study, trustworthiness was established by using a multidisciplinary group of researchers with different perspectives (health visiting, nursing, psychiatry, education) in the analysis. The researcher both conducted and transcribed the interviews, which increases reliability. The interviews of this study were digitally recorded, and thus it was possible to transcribe the authentic comments. Furthermore, as it is supported that authentic citations should be used to increase trustworthiness (Patton 2002), the results of the study are supported by excerpts from the participants' interview data (II, III).

Credibility deals with the focus of the research and refers to confidence in how well the data and processes of the analysis address the intended focus (Polit & Hungler 1999). The literature supports that health promotion practice which involves social phenomena, in contrast to the measurement of biomedical interventions in clinical health care, requires both quantitative and qualitative methods (Hepworth 1997). In addition, it is supported that many different research methodologies can be used to explore the effectiveness of mental health promotion interventions; when dealing with mental health issues randomized control trials, quasi-experimental design and qualitative approaches are all valid (Hodgson et al. 1996). It is also supported that instead of randomized control trials, different approaches to evaluation are required for the evaluation of mental health interventions; qualitative research aims not to generate statistically significant results, but to explore themes, patterns and associations within a richer and more diverse data set (Jenkins et al. 2007). Moreover, the combination of methods is expected to strengthen confidence in the validity of the findings (Parahoo 2006). Therefore, in the second phase, data were collected from the study participants using qualitative and quantitative methods.

Dependability means that the results can be confirmed with other research; that is the study can be repeated using the same protocol, across researchers and methods (Miles & Huberman 2001). Dependability of qualitative data refers to the stability of data over time and over conditions (Polit & Beck 2008). The researcher should describe the basis and process of drawing the conclusions, for giving the other researchers opportunity to follow the decisions made (Miles & Huberman 2001). Content analysis requires the researcher to be creative (Graneheim & Lundman 2004). On the other hand, problems can be caused by the subjectivity of the researcher (Burns & Grove 2009). Confirmability refers to the objectivity or neutrality of the data (Polit & Beck 2009). The researcher's own hypotheses or previous experiences can influence the research process (Mays & Pope 2000), so in this study own hypotheses and experiences had no influence on either the analysis or results. In addition, all the different phases of the analysis process have been documented and reported (Polit & Beck 2008). Thus, in the current study, besides the main researcher, a second Greek speaking researcher was also involved. Dependability was further enhanced by including original quotations when reporting the findings. Additionally, an example of the categories establishing is presented in the Figure 2, which allow others to evaluate the formation of the categories. Moreover, in order to ensure confirmability, the researcher coded the data

several times at regular intervals and all efforts were made to ensure that the researcher's own opinions had no influence on the data analysis.

Transferability refers to the extent to which the findings from the data can be transferred to other settings or groups (Miles & Huberman 2001). The researcher provided detailed information regarding the overall process of the study and the methods used in order for other researchers to determine any potential transferability. The information provided allows comparisons to be made. The reader can decide whether the context is similar to another in order to implement such a study. The participants, however, represent the perceptions of the adolescent group since the interview data provide saturation of their findings. Thus, transferability of this study can be achieved.

6.2. Discussion of the study results

In order to provide findings on mental health and illness perceptions among adolescents; qualitative and quantitative methods were used. This allows for a more global image on the issues that the study addressed. Furthermore, this study explored the way adolescents perceive mental health and mental illness as well as the perceptions about persons with mental illness and the impact an educational mental health intervention had on these.

Health and illness are not mutually exclusive and can coexist (Pollett 2007). Salutogenesis orientation health promotion supports the health-illness continuum (Antonovsky 1996). Furthermore, it is supported that mental health and illness should not be placed on a single continuum (Tilford 2006). Westerhof and Keyes (2010) also support the two continua model of mental illness and health which holds that both are related, but distinct dimensions: one continuum indicates the presence or absence of mental health, the other the presence or absence of mental illness. For the purposes of this, and because of the age of the participants, mental health and mental illness were examined separately.

The results of the current study support that the impact of the educational mental health intervention on mental health and illness perceptions among adolescents can be positive. The limited literature supports the results of the current study; studies among adolescents of the same age as the current study have shown positive changes in attitudes towards mental illness after educational interventions (Essler et al. 2006, Pinfold et al. 2003, Watson et al. 2004, Spagnolo et al. 2008). Similar conclusions were found by DeSocio et al. (2006) when students aged 10-12 years who participated in a mental health education programme realized significant gains in knowledge of mental health and illness. In the same way, participants felt that the intervention created an awareness of the stigma of mental illness, provided new information and new thinking was stimulated (Petchers et al. 1988).

Adolescents in this study were able to describe in their own words how they perceive mental health and mental illness as well as to draw a mentally ill person. The way the

participants perceive mental health and mental illness and describe them before the intervention is similar to what it has been found in previous studies. However, there is a lack in the literature concerning similar interventions and thus, this study provides a first insight into the positive impact of educational mental health interventions on the adolescents' perceptions towards mental health and mental illness.

In this study, the participants were able to describe their perceptions of mental illness and provide a rich description of it. On the other hand, it has been found that in younger age (8-9 years old) there is a lack of understanding of mental illness, lacking well-formed conceptions of mental illness, being unable to provide examples of people with mental illness (Adler & Wahl 1998). Previous research also supports that a young person's understanding of mental illness becomes more sophisticated as she/he progresses in age and school grade (Wahl 2002).

The adolescents in this study also mentioned a sense of happiness as a component of mental health. Similarly, a study conducted in the United States among Mexican adolescents found that, for them, mental aspects of being healthy centred on happiness, being positive and looking forward (Garcia & Saewyc 2007). Another study used factor analysis to assess the way Chinese students in primary schools, high schools and universities define mental health; it showed that the highest loading item on the "affective strength" factor was "keeping a happy mood" (Wang & Miao 2001). Furthermore, adolescents in another study described mental health in a manner consistent with elements of the definition provided by W.H.O. (Chandra & Minkovitz 2007).

Among a younger age group (10-11 year old children), mental health was considered to have different aspects, emotions, thoughts and behaviour. For example, the children reported that "mental health is really peace of mind and not your emotions overbalancing" (Roose & John 2003). Participants in the current study described mental health in the same way as well. In another earlier study on people's views about mental health, participants defined mental health by using the words "balanced", "emotionally controlled", "stable" or "coping" as a way of describing mental well-being. The phrases "the way one feels" or "being happy" were less common. The responses primarily had to do with coping and not letting things affect one's rationality (Rogers & Pilgrim 1997), which were also mentioned in the current study when mental health was described. According to Paulus (2009), according to children mental health means having the ability to come to terms actively and successfully with the age and socio-cultural typical conditions in which they find themselves, assuming those conditions are beneficial, and this might be related to the family, school, friends, environmental conditions (e.g. housing).

It is interesting to see that the responses in this study are in line with the meanings of well-being among young people diagnosed with psychosis whom included psychological (e.g. thinking clearly, positively, being in control of thoughts, believing in myself, feeling normal, feeling good about myself), physical, emotional (e.g. feeling good, being happy), moral/virtuous, financial/material (e.g. having my own home),

spiritual, and social aspects (e.g. being accepted, treated normally, doing normal activities, having a normal life) (Lal et al. 2014).

In the current study, some participants also described the concept of mental illness instead of the concept of mental health before the educational mental health intervention. Similar results have been achieved in many studies. Heffron (2000) stated that the term mental health is associated with pathology and mental illness. In a study by Chandra and Minkovitz (2007), adolescent participants described mental health in terms related to psychopathology. They used the term "mental" as a negative description. Nearly half of the participants equated good mental health with intelligence or confused mental health with mental retardation. Moreover, Dogra et al. (2005) observed that the majority of the participants, involving young persons and their parents, did not have a clear understanding of the terms mental health and mental illness. They could not distinguish between the two concepts, and they used the concepts similarly and interchangeably. Additionally, Weisen and Orley (1996) stated that when people think of mental health, a negative picture of madness or depression tends to come to mind. However, in the current study participants in the experimental group did not confuse mental health with mental illness after the intervention. At first, confusion between mental health and mental illness is understandable also in Greek language, because "mental" is placed in front which, for non-health professionals, implies something negative and not health.

Regarding mental illness, the adolescents participating in this study described mental illness as being shy and sad and causing a person to cry. Among children aged 5-11 years it was observed that the older children demonstrated a more sophisticated and accurate thinking about mental illness compared with the younger children who tended to rely on a medical model in order to comprehend mental illnesses (Fox et al. 2008). For example, younger children tended to respond that anorexia nervosa was caused by drugs, whereas older children were more likely to respond that it was caused by not eating properly. In the same study, in regards to the consequences of mental illness diagnoses, younger children tended to provide medicalized consequences; for example, stating that the principal character diagnosed with anorexia nervosa would need to have an operation, and that those diagnosed with schizophrenia would have to take tablets in comparison to older children tending to say, for example, that those diagnosed with schizophrenia would need to see a psychiatrist.

In the current study, one of the dominant answers among the participants from both groups when referring to mental illness was having psychological or other problems. It has been found that young people identified physical and mental disabilities, bullying and psychological problems as the main characteristics displayed by mentally ill people (Dogra et al. 2005). In the same way, it has been shown that the general public often described mentally ill people as being more sensitive and that only a minority of them (8%) believed that the mentally ill are more intelligent than other people (Wolff et al. 1996). Moreover, only three participants in the current study described mentally ill people as being dangerous. However, Ineland et al. (2008) claim that recurring negative feelings and perceptions have been described in all kinds of societies and

studies showed that many perceived mentally ill people as being more capable of committing violent acts than others.

Overall, the results of this study indicate that small but positive changes occurred due to the educational mental health intervention. Relatively minor changes can be seen among the variety of elements used by the participants in the experimental group to describe mental illness before and after the intervention. However, the biggest change after the intervention involved new categories added by the participants in the experimental group: they suggested that mental illness is an illness just like any other (or a physical illness); they suggested that it is an illness that can be faced or that is manageable. Similarly, a study among the Hong Kong Chinese population (15-102 years old) found that the majority agreed or strongly agreed that everyone had the chance of developing mental illness (Siu et al. 2012). After the intervention, experimental group participants in this study also named specific illnesses such as depression or schizophrenia. While, a recent study has found that the most frequent problem identified in their vignette-based study among adolescents was depression, followed by self-harm and addiction, while they also recognised as mental health problems, possible risk factors (such as learning disability, bullying) or unhealthy coping strategies (such as self-harm, drug/alcohol addiction) (Leighton 2010).

After the intervention, the responses of the participants in the experimental group also included the need for specialised care; the need for therapy, treatment (medication) and medical consultation. Similarly, a study among adolescents found that 90% of the participants reported that persons with depression needed to get help from another person (Burns & Rapee 2006) and other researchers found that young people and their parents think that mental illness is a disability of the brain requiring hospitalisation (Dogra et al. 2005).

Furthermore, after the intervention the experimental group said that we should not be afraid of mentally ill persons, treat them differently or leave them in the margins. Instead, we should be friendly to them. However, it has been found that the young people's attitudes revolved mainly around sympathy and fear (Secker et al. 1999). Likewise, earlier it has been found that a minority of respondents (9%) objected to ex-psychiatric patients living in their neighbourhood (Ineland et al. 2008). In addition, in another study young people evaluated a treated person as less violent, suicidal, and more able to do well in school than an untreated person (Romer & Bock 2008). A study among the Hong Kong Chinese population (15-102 years old) found that the majority agreed or strongly agreed that society should treat people with mental illness in a tolerant way (Siu et al. 2012).

Moreover, the results of the current study show that the participants still described mental health in a positive manner after the intervention, and they did not describe it in negative manner as often or at all (for example, not being ill) after the intervention. There are also some descriptions of mental health which only appear after the intervention. For example, some of the participants mentioned being able to talk about one's problems, face problems, express feelings, perform one's activities normally. An earlier study (Armstrong et al. 1998) has described similar findings about the factors

which cause positive mental health: family, friends, personal achievement, feeling good about yourself, having people to talk to, pets, presents, and having fun.

It appears that the adolescents of the current study represent a rich view of a mentally ill person, while, on the other hand, elementary pupils (Adler & Wahl 1998) were unable to give examples of people with mental illness. People with mental illness are often considered to be identifiable and different from the rest of the population (Herrman 2001), which was also found in the current study. It was evident in the current study that mentally ill is regarded as socially distant, asking for help and with a different appearance than other persons. Moreover, the mentally ill were often placed in a psychiatric hospital which was less often after the intervention among the experimental group.

The emotional states and mood expressions that were demonstrated by the drawings of the current study include sadness and sorrow by drawing the mentally ill sad or crying or with red eyes. Similarly, children in an earlier study drew people with expressions of sadness or other extreme emotion (Shah 2004). Moreover, the drawings in this study involved faceless persons, without hands or with missing parts of the body. Similar observations of mood expression and abnormal physical attributes, such as an extra noise or a strange hairstyle and other drawings depicted non-human forms, such as arms on springs, were reported for drawings of children, which also included some drawings with bizarre behaviour such as wearing ripped clothing or eating inedible objects (Shah 2004). Ronzoni et al. (2010) found that a large number of their participants, secondary school pupils, identified mental illness with abnormal appearance such as dirty clothes or being naked, which are not depicted from the drawings of this study.

"Mental patient" is considered unpredictable, tense and dangerous and characterized as worthless, delicate, slow, weak and foolish (Green et al. 1987). In addition, Poster et al. (1986) showed that children attributed to the behavioural characteristics of the mentally ill; inappropriate behaviour, such as standing on one's head, flying like superman and mowing a garden of flowers, suicidal behaviour, hostility/aggression and self-abusive behaviours such as drinking alcohol, smoking cigarettes, taking illicit drugs (Poster et al. 1986). Similarly, secondary school pupils identified mental illness with abnormal behaviour (Ronzoni et al. 2010). In addition, Wahl et al. (2003) found that characters labelled as having a mental illness depicted in children's films have a violent and threatening behaviour and are feared by others, which reinforces the conception of people with mental illnesses as aggressive and as people with whom it is appropriate to be afraid. Dangerous behaviour was also present in the drawings of the current study, however, after the intervention dangerous behaviour is not present among the drawings of the participants in the experimental group.

There is a high frequency of references to the mentally ill in children's television particularly during cartoons and the vocabulary used is predominantly negative (Wilson et al. 2000). Wahl (2003) concluded that the predominant presentation of characters with mental illnesses in children's media tend to be unattractive in personal appearance, typically fail in life, can look forward to be ridiculed by others and seldom

benefit from treatment. Thus, the evidence suggests that there is a preponderance of negative depictions of mental illness in children's media (Coverdale & Nairn 2006). In the current study, participants drew the mentally ill person scruffy and neglected, and with unruly hair, whereas this appearance is not present after the intervention in the drawings of participants in the experimental group.

The participants among the experimental group in the current study revealed a significant positive change in Social Discrimination after the intervention. Although the experimental group had a higher score than the comparison group on Social Discrimination before the intervention, at the post-test the decrease was bigger. In addition, girls showed less Social Discrimination after the intervention compared to boys. Thus, the intervention had a positive impact on Social Discrimination, which is also supported by several other studies. Dogra et al. (2012) found that Nigerian secondary school children appear to be socially distant towards a person with mental health problems. However, Conrad et al. (2009) found a positive effect of a school programme on students' desire for social distance toward people with mental illness. In other studies, participants were less socially distanced after the educational intervention (Stuart 2006, Pinfold et al. 2003, Schulze et al. 2003).

Moreover, studies indicated improvements in stigmatization after educational interventions among adolescents (Rickwood et al. 2004, Ng & Chan 2002, Bronwyn & Dale 1993), or showed positive effects on dispelling negative stereotypes (Schulze et al. 2003). Finally, a study among older Greek adolescents showed that the participants after the educational intervention adapted more positive attitudes towards mentally ill people and they also obtained significantly more knowledge and an integrated opinion about deinstitutionalization, psychiatric reform, and the community rehabilitation settings in the area where they live (Asimopoulos et al. 2007).

Positive change in the Social Care factor was also found among the experimental group which was significant after the intervention in contrast to the comparison group, whereas, an earlier study among adolescents showed no reinforcement of benevolence after the educational intervention (Ng & Chan 2002). Social Integration had a significant positive change after the educational mental health intervention. The positive change is more remarkable among girls, who started with lower scores than boys, but they reached the same scores as the boys after the intervention.

Finally, it is supported that people who have met, talked or worked with a psychiatric patient show more positive attitudes and study results suggest that stigmatisation may be reduced by increasing social activities with psychiatric patients (Vezzoli et al. 2001). In the current study, at post-test adolescents who had ever had contact with a mentally ill person showed less Social Discrimination. However, Social Discrimination decreased both in adolescents who had contact with a mentally ill person and in those who never had contact with a mentally ill person. Adolescents who had ever had contact with a mentally ill person had lower scores on Social Restriction at pre-test. Social Integration increased significantly only in those who had never had contact with a mentally ill person, but the overall change during the follow up was not different between the two groups.

There are a number of limitations to this study which need to be acknowledged. First, the data collection has been conducted several years ago. However, it is still a relevant issue, since the prevalence of mental health problems is still high (European Commission 2010, European Pact for Mental Health and Well-Being 2008, W.H.O. 2008b) and the attitudes towards persons with mental health problems have not changed (W.H.O. 2011b). Moreover, many policy papers highlight the importance of mental health interventions and more specifically mental health promotion. For example in Greece, one of the main mental health promotion priority areas included in the National Plan was mental health in childhood and education (Moschovakis & Douzenis 2013).

Another possible limitation is the small number of participants. However, power analysis was calculated and the saturation rule was followed as well since qualitative data collection methods have been used. There are some limitations in generalizability in this study due to the small number of the participants. This is due to the current study design which used mostly qualitative data collection (interviews and drawings). Nevertheless, the results of outcomes are in line with and expand those of previous studies, which are discussed in this Section 6.2 and Papers II-V. This was not a randomised study, which would allow for further generalisation. However, there was an experimental and comparison group with pre-post test design, in order to ensure that the results found after the intervention were due to this and not other factors.

Another limitation can be that there was not a follow-up test in order to check if the changes remain over time. However, a post-test was conducted after the intervention in order to ensure that the results are based on the impact of the intervention itself and not caused by other external factors that may appear over time. Finally, although the time length of the intervention was short, it was suitable for this target group. It was a realistic approach for an interventional study implemented in a school setting where it is not easy to have access and intervene so drastically.

6.3. Conclusions

Health promotion recognises that initiatives are likely to meet with little success unless people's own understanding, beliefs and concerns are taken into account (W.H.O. 2012c). Hence, the current study provides a description of the perceptions adolescents have towards mental health and mental illness and furthermore, the outcomes of the effectiveness of an educational mental health intervention. The findings of this study contribute to the understanding of adolescents' towards mentally ill persons and health educators can use them in the future for developing and implementing mental health education interventions.

The results of the current study show that there are positive aspects of mental health which could be used in future interventions to influence the way adolescents perceive mental health and illness, and thus, promote mental health. The results are encouraging for (mental) health professionals and the future of mental health promotion. Health care providers often do not see prevention or promotion as their primary responsibility

(Stengård & Appelqvist-Schmidlechner 2010) and this is also reflected in the field of mental health. Additionally, health promotion should be seen as an integral part of everyday practice rather than a separate or "add on" activity (Benson & Latter, 1998). Furthermore, the existing literature on mental health education among adolescents is limited and thus, (mental) health professionals need to recognise this existing gap and to emphasise health education about mental health issues.

Since mental illnesses affect people worldwide (W.H.O. 2011c), mental health educational interventions are relevant internationally. In addition, Turunen et al. (2006) suggest that there is a need to clarify the vision and mission of health promotion in school community by a strategic work. Based on this study, mental health education in schools can be effective. Mental health educational interventions should also be directed at increasing positive perceptions of mental illness and mental health promotion among adolescents, since they are the future adults who will have an impact on the quality of life of the whole community. Such educational interventions may produce adult individuals who are knowledgeable and non-prejudiced towards mental illness. Hence, such interventions may improve the overall health of the community by producing individuals who are knowledgeable about mental health and mental illness and who will have a better understanding of mental health and mental illness.

6.4. Implications for practice

Taking a community health perspective, it is suggested that mental health education is an area that needs to be developed among adolescents. As it has been pointed out in an earlier study, mental health education should reflect the needs of young people (Woolfson et al. 2009). The findings of the current study highlight the importance of understanding how adolescents perceive of mental health and illness so that interventions can be implemented that promote mental health.

More specifically, the findings of the current study suggest the following implications for practice:

- A limited number of previously published studies on mental health educational interventions among adolescents with the aim to affect their attitudes towards mental illness were identified, while there were no interventions concerning the perceptions on mental health and mental illness. Thus, (mental) health professionals should be more aware of the need to give emphasis to mental health education among adolescents and introduce initiatives that promote mental health.
- Educational mental health interventions which strengthen an understanding of mental health and mental illness, and enhance the positive perceptions of mental health and mental illness, as well as reduce negative views of mental illness, seem to be possible.

- Future educational mental health interventions could target specific mental illnesses each time in order to improve understanding and reduce negative perceptions towards different mental illnesses.
- In Greece, Health Visitors within the framework of school health implement health promotion and health education programmes. Thus, they can use the information provided by this study and implement similar mental health educational interventions. Implementing such programmes, especially nowadays that the country is facing serious financial issues in the health sector, requires commitment by the health professionals.
- The findings of this study can be used in the context of different cultures, since similar results have been found in other studies as it is discussed in the previous section and they can be further tested.
- Related strategies and policy guidelines should be developed in order to ensure the implementation of successful interventions. In relation to that, it is the importance of adequate resources provision in order to facilitate the process which will lead to better evaluation. Furthermore, coordinated action from all sectors involved is essential for successful mental health interventions.
- Building health policies that promote more the inclusion in the community and thus strategies to increase social contact with persons with mental health problems will also play an essential role in the promotion of community health.
- Strengthening the community action and involvement can lead to better results in taking responsibility for activities that promote community health.

Adding to the above suggestions for implications for practice, another point is that future mental health educational interventions should be integrated in the whole school community and include not only the pupils, but the teachers and the parents too, which is also supported by Puolakka et al. (2013) and Wei & Kutcher (2012). Finally, the economic crisis in Europe has prompted further concerns about the potential impact on mental health (European Commission 2013), and thus, mental health interventions should be a priority, which is supported by W.H.O. Europe (2011) arguing that the successful recovery of European economies crucially depends on the mental health of the population.

6.5. Implications for education

Although, the previous section which refers to the implications of practice covers a large part of issues regarding to the health professionals, it is appropriate to raise the issues of education among health professionals who will be involved in implementing mental health interventions, more specifically:

- Mental health should not be neglected. Graduate study programmes of health professionals should include mental health subjects/modules in order to

familiarise their graduates with mental health issues as well as prepare them to provide mental health care with the aim of mental health promotion and thus, community health.

- Continuing education is also needed for health professionals who had no mental health education and those who already have a basic mental health education in order to keep knowledge and skills up-to-date. Additionally, in these programmes the national and local priorities can be highlighted and specific interventions topics should be raised.

6.6. Implications for further research

The findings of the current study can stimulate further research, more specifically:

- Further research is needed on longer mental health educational interventions so that (mental) health professionals can have more available information when implementing such interventions in the future. As literature supports, health researchers are challenged to develop and test interventions that are adaptable enough to be implemented around the world (Cowell 2010).
- This study supports that adolescents are a suitable target group for mental health educational interventions. However, in the future, it will be interesting to expand such an interventional study among other children's ages in order to explore them and provide findings for practice implications across schools.
- Researchers should also consider the development and evaluation of interactive educational programmes with the use of modern technology (e.g. social media, mobile applications, etc) for adolescents within the context of nowadays society, in order to provide evidence of their impact.
- The issue that this study addressed remains a challenge for researchers and it needs to be further studied in order to demonstrate the perceptions of mental health and illness among adolescents using quantitative methods which can be easier generalised and thus, (mental) health professionals may apply it effectively in the course of implementing the proper interventions for mental health education.
- Researchers and health professionals should work in collaboration for the implementation and evaluation of mental health educational interventions in order to identify evidence based interventions for the purposes of the community health promotion.
- Globalisation and the free movement within European Union give the opportunity for persons with mental illness to move around. Thus, cross cultural studies using the same intervention and evaluation process will also provide an insight into the current topic from several perspectives which will lead to useful implications.

To conclude, although mental health is recognised worldwide as being of essential importance for community health, and there are a large number of publications on mental health in general, there is still a lot to be done towards mental health promoting communities. Moreover, little attention is given to mental health educational interventions among adolescents which this study stresses. On the other hand, this study demonstrates that an educational intervention leads to more aware adolescents about mental health and mental illness and less negative towards mental illness and persons with mental illness. Hence, these results should be taken under consideration by health professionals for future practice and research in order to promote community mental health.

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Turku, September 2014

Evanthia Sakellari

APPENDICES

Appendix 1. Cover letter and informed consent form for parents/guardians

Αθήνα, .../.../.....

Αγαπητέ γονέα-κηδεμόνα,

στο πλαίσιο των προγραμμάτων Αγωγής Υγείας που εφαρμόζονται στα σχολεία δευτεροβάθμιας εκπαίδευσης της Ελλάδας, διενεργείται σύντομο πρόγραμμα Αγωγής Ψυχικής Υγείας στο σχολείο όπου φοιτά και το παιδί σας. Η Αγωγή Ψυχικής Υγείας θα πραγματοποιηθεί μέσα σε δύο διδακτικές ώρες οι οποίες είναι ενταγμένες στο πρόγραμμα μαθημάτων για μία και μόνο φορά.

Το πρόγραμμα αυτό Αγωγής Ψυχικής Υγείας, περιλαμβάνει ενημέρωση και πληροφόρηση σχετικά με διάφορες ψυχικές παθήσεις, την πρόληψη αυτών, την (πρώιμη) συμπτωματολογία τους και έγκαιρη αντιμετώπιση, τα αίτια και την θεραπεία τους, την επικινδυνότητα των ατόμων αυτών, καθώς και την αποκατάσταση, κ.ά.

Το πρόγραμμα εκτός από την ενημέρωση, περιλαμβάνει και έρευνα. Στο μέρος της έρευνας, οι μαθητές καλούνται να απαντήσουν σε ερωτήσεις σχετικά με τις απόψεις τους απέναντι στην ψυχική νόσο, καθώς και να ζωγραφίσουν. Για την διενέργεια της έρευνας θα χρειαστούν συνολικά δύο διδακτικές ώρες. Οι μαθητές δεν θα χρειαστεί να παραμείνουν περισσότερες ώρες στο σχολείο. Το όλο πρόγραμμα εντάσσεται στο πρόγραμμα μαθημάτων.

Στο πρόγραμμα αυτό συμμετέχουν εθελοντικά όσοι από τους μαθητές θέλουν. Η διαδικασία είναι ανώνυμη. Οι απαντήσεις των συνεντεύξεων και των γραπτών ερωτηματολογίων καθώς και οι ζωγραφιές θα χρησιμοποιηθούν ώστε να αναλυθούν και να δημοσιευτούν στο πλαίσιο διδακτορικής διατριβή που εκπονείται από την Σακελλάρη Ευανθία (στο Τμήμα Νοσηλευτικής Επιστήμης του University of Turku της Φινλανδίας και σε συνεργασία με το Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών).

Ο διευθυντής του σχολείου όπως και ο σύλλογος των καθηγητών είναι ήδη ενημερωμένος για την διεξαγωγή του προγράμματος Αγωγής Ψυχικής Υγείας.

Στην επόμενη σελίδα ακολουθεί έγγραφο συγκατάθεσης που θα πρέπει να υπογραφεί εάν συμφωνείτε στη συμμετοχή του παιδιού σας στο πρόγραμμα Αγωγής Ψυχικής Υγείας και να επιστραφεί στην ερευνήτρια.

Για οποιαδήποτε πληροφορία μπορείτε να επικοινωνήσετε μαζί μου στα τηλ.: xxxxxxxxxx ή xxxxxxxxxx ή στο e-mail: sakellari@ath.forthnet.gr

Σας ευχαριστώ εκ των προτέρων!

Σακελλάρη Ευανθία
Επισκέπτρια Υγείας, MSc
Υποψήφια Διδάκτωρ, University of Turku

Appendix 1. (continued)

Συγκατάθεση γονέα/ κηδεμόνα

Ο/Η κάτωθι υπογεγραμμένος/η……..…….....

επιτρέπω στον γιο/ στην κόρη μου …….....

να λάβει μέρος στο πρόγραμμα Αγωγής Ψυχικής Υγείας και να απαντήσει σε ανώνυμο ερωτηματολόγιο, συνέντευξη - ζωγραφιά. Το πρόγραμμα αυτό πραγματοποιείται κατά τη διάρκεια του σχολικού έτους ..... Ο γιος/ η κόρη μου μπορεί οποιαδήποτε στιγμή να διακόψει την συμμετοχή του/της στο πρόγραμμα αυτό εάν το επιθυμήσει.

Αθήνα, …/…/……

(υπογραφή)

Appendix 2. Cover letter and informed consent form for participants

Αθήνα,…/…/…..

Αγαπητέ/ή μαθητή-μαθήτρια,

στο πλαίσιο των προγραμμάτων Αγωγής Υγείας που εφαρμόζονται στα σχολεία δευτεροβάθμιας εκπαίδευσης της Ελλάδας, διενεργείται σύντομο πρόγραμμα Αγωγής Ψυχικής Υγείας στο σχολείο όπου φοιτάς και εσύ.

Το πρόγραμμα αυτό Αγωγής Ψυχικής Υγείας, περιλαμβάνει ενημέρωση και πληροφόρηση σχετικά με διάφορες ψυχικές παθήσεις, την πρόληψη αυτών, την (πρώιμη) συμπτωματολογία τους και έγκαιρη αντιμετώπιση, τα αίτια και την θεραπεία τους, την επικινδυνότητα των ατόμων αυτών, καθώς και την αποκατάσταση, κ.ά.

Το πρόγραμμα εκτός από την ενημέρωση, περιλαμβάνει και έρευνα. Στο μέρος της έρευνας, **εσύ και οι συμμαθητές σου** καλείστε να απαντήσετε σε ερωτήσεις σχετικά με τις απόψεις σας απέναντι στην ψυχική νόσο, καθώς και να ζωγραφίσετε.

Στο πρόγραμμα αυτό συμμετέχουν εθελοντικά όσοι από τους μαθητές θέλουν. Η διαδικασία είναι ανώνυμη. Οι απαντήσεις των συνεντεύξεων και γραπτών ερωτηματολογίων καθώς και των ζωγραφιών θα χρησιμοποιηθούν ώστε να αναλυθούν και να δημοσιευτούν στο πλαίσιο διδακτορικής διατριβή που εκπονείται από την Σακελλάρη Ευανθία (στο Τμήμα Νοσηλευτικής Επιστήμης του University of Turku της Φινλανδίας και σε συνεργασία με το Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών).

Στην επόμενη σελίδα ακολουθεί έγγραφο συγκατάθεσης που θα πρέπει να υπογραφεί εάν συμφωνείς στη συμμετοχή σου στο πρόγραμμα Αγωγής Ψυχικής Υγείας και να επιστραφεί στην ερευνήτρια.

Επίσης, θα πρέπει να δώσεις και στους γονείς σου τον φάκελο με την επιστολή και το έγγραφο συγκατάθεσης το οποίο θα πρέπει να επιστραφεί στην ερευνήτρια μαζί με το δικό σου εάν τελικά συμμετάσχεις στο πρόγραμμα.

Σε ευχαριστώ εκ των προτέρων!

Σακελλάρη Ευανθία
Επισκέπτρια Υγείας, MSc
Υποψήφια Διδάκτωρ, University of Turku

Appendix 2. (continued)

Συγκατάθεση μαθητή-τριας

Ο/Η κάτωθι υπογεγραμμένος……..…….....

μαθητής-τρια της ….. τάξης Γυμνασίου επιθυμώ να λάβω μέρος στο πρόγραμμα Αγωγής Ψυχικής Υγείας, που πραγματοποιείται κατά τη διάρκεια του σχολικού έτους ....., και να απαντήσω στο ανώνυμο ερωτηματολόγιο, συνέντευξη - ζωγραφιά του προγράμματος. Μπορώ οποιαδήποτε στιγμή να διακόψω την συμμετοχή μου στο πρόγραμμα αυτό.

Αθήνα, …/…/……

(υπογραφή)

Appendix 3. Mental health as described by participants and changes after the intervention

	Before intervention		***After intervention***	
	Experimental Group	Comparison Group	Experimental Group	Comparison Group
1.				
being something	**37**	**30**	**17**	**30**
- in peace of mind	5	2	0	2
- in peace in soul (psyche)	3	3	4	3
- logical	4	3	0	3
- happy	6	4	4	4
- happy or sad depending on the moment	0	0	3	0
- normal/ordinary	6	5	0	4
- serious	1	0	0	0
- calm	1	1	0	1
- social	6	4	3	5
- satisfied	2	2	0	3
- (psychologically) well	3	4	3	3
- well with oneself	0	2	0	2
not being something	**4**	**6**	**3**	**4**
- ill	2	2	0	2
- crazy	1	1	0	1
- introverted	1	2	3	1
- afraid	0	1	0	0
2.				
having something	**10**	**2**	**17**	**1**
- a job	4	0	4	0
- a normal life	1	1	0	0
- a home	1	0	1	0
- a family	3	1	6	0
- own opinions	1	0	0	0
- friends	0	0	3	1
- self-confidence	0	0	3	0
not having something	**18**	**15**	**8**	**14**
- (psychological) problems	11	8	7	8
- stress	3	2	1	2
- fights	1	1	0	0
- committed crimes	1	0	0	0
- high temper	1	2	0	2
- depression	1	2	0	2

Appendix 3. (continued)

	Before intervention		***After intervention***	
	Experimental Group	Comparison Group	Experimental Group	Comparison Group
3.				
the ability to do something…	**5**	**4**	**12**	**3**
- make decisions	1	0	1	0
- react	1	1	0	1
- live alone	0	1	0	0
- judge	0	1	0	1
- think happy thoughts	1	0	0	0
- understand feelings of love	1	0	0	0
- talk about one's problems	0	0	1	0
- face one's problems	0	0	3	0
- express feelings	0	0	1	0
- go about one's daily life	1	1	0	1
- perform one's activities normally	0	0	6	0
the ability not to do something…	**4**	**2**	**0**	**2**
- crazy things	3	2	0	2
- naïve mistakes	1	0	0	0
4.				
feeling something				
- good about oneself	3	4	3	4
not feeling something				
- isolated	1	0	0	0
5.				
thinking	**3**	**2**	**2**	**1**
- reasonable	2	1	2	0
- knows to think	1	1	0	1
not thinking	**3**	**2**	**0**	**2**
- things that do not exist	2	2	0	2
- bad	1	0	0	0

Appendix 3. (continued)

	Before intervention		***After intervention***	
	Experimental Group	Comparison Group	Experimental Group	Comparison Group
6. **to understand** - what happens in the surrounding world	2	3	2	3
7. **being loved/or loving others**	2	1	2	1
8. **to live and enjoy**	2	1	5	1
9. **communicating**	5	4	6	2
10. **behaving normally/logically**	1	3	0	4
11. **description of mental illness**	8	8	0	8

Appendix 4. Mental illness as described by participants and changes after the intervention

Mental illness is…	***Before intervention***		***After intervention***	
	Experimental Group	Comparison Group	Experimental Group	Comparison Group
1 **…being…**	**20**	**21**	**15**	**21**
sick	4	1	0	1
crazy	0	3	0	3
confused	1	1	0	0
disappointed	1	1	0	1
closed to oneself	2	4	4	4
lonely	1	2	1	2
shy	0	1	0	0
afraid	1	3	0	3
isolated	1	0	5	1
jealous	1	0	0	0
sad	0	1	0	1
crying	1	1	0	1
aggressive/dangerous	2	1	0	1
disturbed	1	0	0	0
stressed	1	0	0	0
distant	0	0	1	0
in another world	3	3	0	3
anyone of us	0	0	2	0
afraid of rejection	0	0	2	0
...not being…	**13**	**10**	**13**	**10**
well/healthy	2	0	1	0
well/healthy in mind	4	2	2	2
healthy/well in soul (psychologically)	2	5	3	5
in logic	1	1	0	1
understandable by others	1	0	1	0
social/open	3	2	2	2
dangerous	0	0	1	0
different/special	0	0	3	0
2 **…doing (behaving)…**	**9**	**6**	**8**	**5**
crazy things	2	0	0	0
things that does not understand/out of one's will	1	0	3	0
things that are not normal	1	0	0	0
things that are not logically	1	1	1	1
things that one wants	1	1	0	1
things that are not right	1	0	0	0
things that are not usual	1	0	1	0
strange/extraordinary	1	2	1	2
differently	0	2	2	1

Appendix 4. (continued)

Mental illness is…	***Before intervention***		***After intervention***	
	Experimental Group	Comparison Group	Experimental Group	Comparison Group
3 **…having…**	**19**	**17**	**17**	**16**
problems (psychological or other)	14	13	6	13
mental trauma	1	2	0	2
a disorder in the soul (psyche)	1	1	2	0
high temper	1	0	0	0
illness	0	0	1	0
fears	1	1	0	1
hate	1	0	0	0
extra stress	0	0	1	0
extra sadness	0	0	6	0
symptoms such as…	0	0	1	0
…not having…	**7**	**5**	**2**	**5**
logic	3	5	2	5
peace	1	0	0	0
family	1	0	0	0
job	0	0	0	0
friends	1	0	1	0
self-esteem	1	0	0	0
4 **…not knowing…**	**7**	**5**	**2**	**5**
what is going on around them	3	1	1	1
what one is talking about	0	3	0	3
what one is doing	4	1	1	1
5 **…seeing…**	**2**	**1**	**0**	**1**
everything in black	1	0	0	0
things that do not exist	1	1	0	1
6 **…not being able to…**	**13**	**12**	**11**	**11**
understand	4	1	1	1
make decisions	0	1	0	1
face difficulties	1	1	0	1
react	1	2	0	2
get over something	2	0	0	0
control one's behaviour	1	1	1	1
control one's anger or temper	1	2	0	2
control one's feelings	0	1	1	1
do all one's activities	0	0	4	0
live like others	1	0	1	0
communicate properly	1	1	3	0
get well with others	1	0	0	0
accept himself/others	0	2	0	2

Appendix 4. (continued)

Mental illness is…	***Before intervention***		***After intervention***	
	Experimental Group	Comparison Group	Experimental Group	Comparison Group
7 **…feeling…**	**2**	**1**	**2**	**0**
distant	1	0	0	0
lonely	1	1	0	0
different	0	0	2	0
8 **…talking to oneself…**	**1**	**2**	**0**	**2**
9 **…an illness…**	**0**	**1**	**23**	**0**
as the others or as physical illness	0	0	7	0
such as depression,	0	1	10	0
schizophrenia...	0	0	1	0
that anyone is vulnerable to	0	0	5	0
that can be faced/manageable				
10 **…we should…**	**0**	**0**	**1**	**0**
be friendly to them	0	0	1	0
…we should not…	**0**	**0**	**6**	**0**
be afraid of them	0	0	3	0
behave differently to them	0	0	2	0
leave them in the margins	0	0	1	0
11 **…needing…**	**0**	**0**	**15**	**0**
therapy	0	0	6	0
medication/treatment	0	0	5	0
doctor consultation/medical	0	0	4	0
advice				