

**College Students Attitudes towards Mental Illness**  
**In relation to Gender, Empathy, Agreeableness and Exposure**

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## **Abstract**

Researchers commonly claim that stigma is one of the major confounding factors preventing mentally ill individuals seeking help (Zartaloudi and Madianos, 2010). The aim of this study is to investigate whether there is a difference between Psychology, Business and Law students in relation to attitudes towards mental health, empathy and agreeableness. Differences between Gender, exposure to mental illness were also measured in relation to empathy, agreeableness and mental health attitudes. The Community Attitudes towards Mental Illness scale (Taylor and Dear, 1982), Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998) and the Ten-Item Personality Inventory (Gosling, Rentfrow, and Swann Jr., 2003) were used to explore these aims. 98 (Male:42, Female:56) participants from a number of urban Dublin colleges participated in the study which required them to fill out a questionnaire. Results showed no significant differences between the academic fields, in relation to the scales, however gender and exposure levels did portray significant results.

This study can be used to further affirm current literature and anti-stigma programmes. Limitations are discussed within.

# Introduction

## 1.1 Mental Illness

Ireland has higher rates of mental health difficulties than its allies in the EU and the USA (O'Regan, 2013). Mental health is defined by the World Health Organisation as a 'state of well-being in which every individual realises 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' (2007). According to the Mental Health Foundation mental health is defined as 'A positive sense of wellbeing which enables an individual to be able to function in society and meet the demands of everyday life; people in good mental health have the ability to recover effectively from illness, change or misfortune' (2005). However, we all feel pressure, worried, upset, sad and angry or often a combination of these (Aron, 2008). It is usually because things in our life are difficult or because we aren't getting on well with other people (Orman, 1999). Most of these stressful things last only a short time before usually being sorted out (Boeree, 2009). Further, stress can be both positive and negative (Updegraff and Taylor, 2000). We can benefit from stress when it stimulates and aids us to manage a situation. This positive response prepares the body for action and activates the higher thinking centres of the brain also providing the energy to handle emergencies and meet challenges (University of Iowa, 2009). But when stress is left untreated for prolonged periods of time it can manifest into a mental illness. Specially, stress impacts our immune function (Pace, 2006), which is really important for how the brain develops normally (Bilbo, 2007). Therefore, the longer stress is able to run wild the more devastating its effects. More specifically this study will be looking at mental illness in this present study. Mental illness is defined as "the experience of severe and distressing psychological symptoms to the extent that normal functioning is seriously impaired" (Mental Health Ireland, 2014). A domestic study by Cannon, Coughlan, Clarke, Harley and Kelleher (2013) discovered that one in five young Irish adults between the ages of 19-24 and one in six people between the ages of 11-13 are experiencing a mental disorder. They also went on to note that by the

age of 24, one in five people in Ireland have experienced suicidal thoughts. Studies in America show similar prevalence of mental illness among adolescents at 40.3% (Bagalman & Napili , 2014) and suicidal ideation with 3.7% of U.S adults experiencing suicidal thoughts throughout the year of 2008-2009 (Crosby, Han, Ortega, Parks and Gfroerer, 2011). These studies highlight the serious issue of mental health disorders and suicidal thoughts amongst the young of society. Thus any insight into obstacles that may cause one to avoid seeking intervention and treatment should be approached as paramount. The average length of time one is untreated for their first episode of psychosis in Dublin is two years (DETECT, 2010). In relation, research states that the longer psychosis is allowed to manifest the more likely one is to commit suicide (Bertelsen, Jeppesen, Petersen and Thorup, 2007), also the longer duration psychosis is left untreated reduces the likelihood of full recovery (Birchwood, Todd and Jackson, 1998). But what can affect one of availing of therapy? How can we change this?

## **1.2 Stigmatising Mental Illness**

“Stigma is a barrier and discourages people and their families from getting the help they need due to the fear of being discriminated against” (HSE, 2014). Researchers commonly claim that stigma is one of the major confounding factors preventing mentally ill individuals seeking help (Zartaloudi and Madianos, 2010), diminishing ones self-esteem and robbing people of social opportunities (Corrigan, 2004). Importantly, studies have revealed that positive attitudes towards mental illness can encourage those needing intervention to seek it rather than the alternative social isolation, distress and difficulties in employment faced by sufferers (Crisp and Gelder, 2005). Similar research in the area conducted by Corrigan and Penn (1999) observed that individuals who possess more information about mental illness are less stigmatizing than individuals who are misinformed about mental illness. Therefore it is important that mental health professionals and students have especially positive attitude towards mental illness. Further emphasising this importance Alexander and Bruce (2003) showed that mental health professionals held less stigmatising attitudes towards

the mentally ill than the general public, stating that increased contact and personal experience with the mentally ill actually reduced stigmatising attitudes. Morrison (2011) conducted research examining nursing student's attitudes towards mental illness in a large American College. Students with previous experience with people with mental illness or themselves having availed of treatment, were shown to be less authoritarian and socially restrictive, and more benevolent and ideological, suggesting that the more contact a student has with the mentally ill, the less fear the student has, and the more positive their attitudes become (Morrison, 2011). Further, Morrison observed that after completion of a Psychiatric/Mental Health Nursing course, participant's total authoritarianism and social restrictiveness levels were shown to decrease, and total benevolence and community mental health ideology levels increased, though the results were not statistically significant. However total authoritarianism and social restrictiveness were very close to significance ( $p < .05$ ): authoritarianism ( $p = .069$ ) and social restrictiveness ( $p = .067$ ). Strengthening Morrison's findings, Sheridan (2011) tested the differences between Psychology and Law students with respect to the sub-groups of the CAMI scale (Taylor and Dear, 1981), results showed that Law students displayed significantly higher levels of authoritarianism, and psychology students displayed significantly higher levels in community mental health Ideology. Thus, these two studies would imply that increased education around mental health decreases ones levels of authoritarianism and increases ones levels of community health ideology. Anti-stigma programmes in Ireland such as the 'See Change campaign' a national alliance of organisations working together to bring about positive change in public attitudes and behaviour towards people with mental health problems, or work experience and education programmes (St. Patricks, 2014) could help to narrow the gap between these results, by educating the public and improving awareness. However, the research literature concerning attitudes towards mental illness is fuelled by conflicting results. "'Courtesy' stigma is the stigma attached to people who are associated with the mentally ill, such as mental health professionals (Sadow, Ryder and Webster, 2002). According to Nordt, Rossler and Lauber (2006) mental health professionals are found to have an increased stigmatising attitude toward mental patients. Nordt et



al. concluded that increased knowledge of mental health resulted in higher negative ratings than when compared to the public; interestingly they also found that older people held less stigmatising attitudes than younger people. Further strengthening this argument, a study measuring empathy levels of medical students was conducted where first-year medical students scored higher on empathy (118.5), than their fourth-year counterparts who scored the lowest in regards to empathy(106.6) (Chen, Lew, Hershman and Orlander, 2007). This present study will try to add weight to one of these phenomena, by measuring the mental health attitudes of psychology students and comparing them against both law and business students via the use of 'The Community Attitudes towards Mental Illness' scale (Taylor & Dear, 1981). To this studies knowledge there is no research which aims to examine if psychology students are less stigmatising than business and law students therefore better suited to mental health studies than their student peers.

### **1.3 Diagnosis and Interventions**

According to the U.S. Equal Employment Opportunity Commission and the Boston University Centre for Psychiatric Rehabilitation," major life activities include the ability to care for oneself, learn, work, communicate, and engage in successful personal relationships" (Intervention Support, 2014). When one is unable to engage in these activities competently, intervention would be desirable. Psychological interventions are methods used to facilitate change in an individual. Specifically they are activities used to modify an individual or group's behaviour, emotional state, or feelings (Ballou, 1995). Psychological interventions can be classified into behavioural, cognitive, psychodynamic, humanistic, systemic, motivational, disease, and social and environmental, depending on the theoretical models underpinning them (National Collaborating Centre for Mental Health, 2011). A study conducted by Miller and Wilbourne (2005), tested these different theoretical models on alcohol addiction. They were unable to distinguish a 'superior' model of treatment. This has led to the general view in the field that while psychological interventions are better than no intervention, no single approach is superior to another.

In Ireland, the traditional response to mental illness has been predominately medical in nature, with psychiatrists being at the forefront of treatment (Mental Health Reform, 2010). There is now however a shift towards a more modern multi-disciplinary approach within the HSE. The 'A Vision for Change' program produced by O'Connor (2006) under direction of the HSE, represents the rebalancing of decision making power that is required to move to a modern mental health service. Primarily the program focusses on the holistic view of mental illness recommending an integrated multidisciplinary approach to addressing the biological, psychological and social factors that are involved in mental health difficulties. Also proposed in the 'A Vision for Change' program is "a person-centred treatment approach which addresses each of these elements through an integrated care plan, reflecting best practice, and evolved and agreed with service users and their carers" (pg.8), thus putting emphasis back on the client. This reform has been implemented in light of previously discussed issues among society members, with mental health disorders on the increase (Mental Health Ireland, 2014). There has been a significant increase in the use of evidence based intervention in both neurodevelopmental disorders and also mental health disorders, such as CBT (Douglas, James and Ballard, 2004), Mindfulness (Lucey, 2014) and Behavioural analysis (Blenkiron, 2013). These implementations have been very effective according to modern research. A study to determine the effectiveness of a peer-led illness self-management intervention called Wellness Recovery Action Planning (WRAP) was conducted by comparing it with usual care (Cook, Copeland, Jonikas et.al, 2011). Results indicated that WRAP reduced psychiatric symptoms, enhanced participant's hopefulness, and improved their quality of life over time. Similar research conducted by Whitfield and Williams (2004) portrayed evidence based success for CBT in treating depression, and suggested that the reduction of face-to-face contact by introducing self-help into treatment as a possible method of improving access. It is important that treatments are accessible and desirable amongst the general public. When external pressures and the influences of others cause one not to avail of these treatments, it causes a huge problem for the individual and society. In addition, perceived stigma can significantly affect feelings of shame and lead to poorer treatment outcomes

(Perlick, Rosenheck, Clarkin, Sirey et al., 2001). According to Moskowitz we carry the patterns learnt as children into adulthood, including how to deal with stress, thus the physiological consequences of stress build up over years and decades. The earlier we learn to deal with our stress the better our health and energy will be as adults." This present study thus acknowledges the importance of intervention, and encourages the participation in such treatments as described above. The main objective from this study is to provide information that may lead to affective treatment and interventions.

#### **1.4 Empathy and its Effect on mental health professionals/students**

The broad definition of empathy includes affective and cognitive components (Zahn-Waxler & Radke-Yarrow, 1990). Empathy is a multidimensional construct and comprises the ability to perceive, understand and feel the emotional states of others (Dernti, Finkelmeyer, Eickhoff and Kellermann et al., 2009) including nonverbal communication (Katz, 1963). Research specifically exploring the effects of inducing empathy in participants and their subsequent mental health attitudes is substantial (Bethany, Gapinski, Brownell et al., 2003; Batson, Polycarpou and Harmon-Jones et al., 1997). As a result, empathy has been suggested as a key tool in the de-stigmatisation of stereotypes. Brown, Macintyre and Trujillo (2003) found empathetic interventions towards people with HIV/AIDS greatly reduced a group's stigma. In addition, Batson, Polycarpou and Harmon-Jones et al. (1997) showed inducing empathy improved attitudes towards groups suffering from aids and homelessness and even convicted murderers. This portrays the extent of effectiveness that anti-stigmatising programs can offer. However, research testing the relationship between empathy and mental health attitudes in Psychology, Business and Law students is much less prominent. Are psychology students already becoming more stigmatising, or have they in fact got higher empathy levels than their student counterparts? Konrath's (2009) study suggests that we are all on an empathy decline. She conducted a meta-analysis, combining the results of 72 different studies of American college students conducted between 1979 and 2009. Results showed that after the year

2000, there was a substantial decrease in reported empathy levels in students, which are about 40% lower from their counterparts of 30 years ago, as measured by standardised tests of this personality trait. In relation to psychology students, the result adds weight to one side of a contrasting debate. As alluded to earlier, increased knowledge of mental illness has been found to increase stigma in mental health professionals (Ryder and Webster, 2002), while in contrast increased contact with the mentally ill has led to decreased stigma (Alexander and Bruce, 2003). Thus there're both advantages and disadvantages recorded for one studying psychology in relation to treating those with mental illness. An aim of this present research is to explore a gap in literature comparing the relationship between empathy and mental health attitudes between students of different academic fields. What studies do however show is that empathy can influence one's course choice within psychology (Harton and Lyons, 2003). In this study Harton and Lyons compared male and female psychology majors to psychology minors and non-majors to understand the trends in a growing major in which women outnumber men. Results concluded that highly empathic students may choose psychology because they believe that empathy is important for success in clinical and counselling psychology. So if empathy is a possible factor for a student choosing a particular psychology stream, are psychologists more empathetic than business and law students? According to numerous studies, business professionals have been found to score low in empathy and high on narcissism (Holt and Marques, 2012; Sautter, Brown, Littvay, Sautter, Bearnes, 2008). Law students too have been found to be less empathetic than their student counterparts; A study comparing law, nursing and pharmacy student levels of empathy, showed that both nursing and pharmacy students had significantly higher levels of empathy than did law students (Wilson, Prescott and Becket, 2012). This study will investigate the different empathy levels held among psychology, business and law students. Are modern students empathetic or are we all becoming more self-involved as claimed by Konrath (2009)?

### **1.5 The Agreeableness and Empathy connection.**

An individual's personality type has an influence on their attitudes towards mental illness (Bowers, McFarlane, Kiyimba, Clarke and Alexander, 2000). Personality is an individual's characteristic style of behaving, thinking, and feeling (Schacter, Gilbert, & Wegner, 2009). In a study carried out by Arian (2005), results showed that there is a strong positive correlation between the use of narcissistic defences and the tendency to stigmatize. In contrast, those with mature defences have a strong tendency not to stigmatize. These findings suggest that personality traits should be considered in efforts to understand stigmatization. Just as a person's personality type can influence their work; Positive, Negative, Disinterested or Competitive traits (McQuerrey, 2012), so too it can affect their mental illness attitudes. Goldberg's (1981) 'Five Factor model' is a list of basic traits; neuroticism, extraversion, openness, agreeableness, and conscientiousness are largely hereditary thus closely linked to an individual's disposition (Hartmann, Heidesgades, 2006). These traits are given the acronym 'OCEAN' and each lie on a spectrum ranging from low to high. An individual's personality is defined by their position on each of these trait spectrums. In relation to this study, "Agreeableness is a personality trait manifesting itself in individual behavioural characteristics that are perceived as kind, sympathetic, cooperative, warm and considerate" (Thompson, 2008, pg542). Interestingly, Agreeableness has been shown to correlate with empathy in an abundance of studies (Graziano, Habashi, Sheese, Tobin, 2007; Del Barrio, Aluja and Garcia, 2004). Del Barrio et al. (2004) tested 832 Spanish adolescents using both Bryant's Empathy Index for Children and Adolescents and the Big Five Questionnaire, results showed that there was a strong correlation between positive traits such as agreeableness and empathy for both boys and girls. In addition, Gray (2009) conducted an experiment testing participants specifically on Agreeableness, empathic concern and personal distress. The participants were presented with an unexpected opportunity to help a victim, results showed that higher levels of Agreeableness, empathic concern and personal distress was found to be associated with increased helping. In light such literature one can assume that agreeableness will have a positive relationship with empathy among participants in this present study. The aim is to

acknowledge and strengthen another possible avenue; personality type, in the development of affective interventions against stigmatization, and to increase the success to early intervention among the mentally ill.

## **1.6 Gender Differences**

Females have been found to make up a substantial percentage of psychology graduate students with nearly 72% of new Psychology doctorates being women (Cynkar 2007). In contrast, Economics Phd students in both America and Sweden consist of only 32% females (Jonung and Stahlberg, 2008), while female law students represent an average of 47% of first- and second-year associates (Weiss, 2011). This raises the question, why do women outnumber men in psychology? Toussaint and Webb (2006) tested the gender difference of empathy in which participants completed self-report measures of empathy; findings showed that women are more empathic than men. These findings have been echoed in numerous research (Fan, Han and Mao, 2008; Vicenta Mestrea, Sampera, Frías and Tura, 2009). For instance, females were found to be significantly more empathic than males ( $p=0.002$ ) when evaluated with respect to the Jefferson Scale of Physician Empathy of empathy (Boyle, Williams, Brown, Molloy, McKenna, Molloy, Lewis, 2009). Fan, Han and Mao (2008), investigated gender difference in the neural mechanisms underlying empathy for pain by comparing ERPs associated with empathic responses between male and female adults. Subjects were presented with pictures of hands that were in painful or neutral situations and were asked to perform a pain judgment task that required attention to the pain cues in the stimuli or to perform a counting task that withdrew their attention from the pain cue. There was a difference found in their long-empathy latency response, with females reporting stronger levels of perceived pain than males, thus portraying their ability to empathise. In relation to mental health, females also seem more willing to recommend professional help than do males (Holzinger, Floris, Schomerus, Carta, Angermeyer, 2012). Further, females also evaluate treatment outcomes more favourably (Holzinger

et al., 2012). This study will aim to provide an insight into gender differences in attitudes towards mental health and in empathy in an Irish context. All studies previously mentioned in relation to gender differences have been external to Irish research, so it will be beneficial to see if there are any cultural differences in relation to this variable. Also, an important component of this present research is to try and explain possible reasons for the increasing ratio of females to males within psychology.

### **1.7 Purpose of present research**

As previously discussed, the aim of this study is to investigate whether there is a difference between mental health attitudes, empathy, and agreeableness among psychology, business and law students. I will also look at the differences between gender, exposure to mental illness and the relationship between the three scales. One would assume that Psychology students should be more empathetic than business students and Law students due to the nature of their studies, But as we have noted, there numerous consequences to increased exposure and knowledge of mental illness. Also females have been found to be more empathetic than males in previous studies, is this a reason for the increasing ratio of girls to boys within psychology? The main motivation for this study is to find possible links for future research in the area of mental health and its resulting stigmatisation. Any information that can improve existing anti-stigmatisation programmes is important as it can lead to early intervention.

Overall, the results and findings from this investigation should contribute to the literature within all respective fields. The main research Hypotheses for this study are:

1. **Will psychology students, law students and business students have different mental health attitudes?** There will be a significant difference in the attitudes towards mental illness between psychology, business and law students with respect to the subscales of the Community Attitudes towards Mental Illness (CAMI) scale.

2. **Will psychology students, law students and business students have different Empathy levels?** There will be a significant difference in the Empathy scores between psychology, business and law students with respect to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998).
3. **Will there be a relationship between Community Attitudes towards Mental Health sub-scales and Agreeableness in relation to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998)?** There will be a significant correlation between Community Attitudes towards Mental Illness sub-scales (CAMI) and Agreeableness in relation to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998).
4. **Will there be a difference in the attitudes towards mental illness between those who know someone with a mental illness and those who don't?** There will be a significant difference in the attitudes towards mental illness between those who know someone with a mental illness and those who don't.
5. **Will females be more empathetic than males in relation to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998)?** Females will be significantly more empathetic than males in relation to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998).
6. **Will there be a difference in the attitudes between males and females in relation to the sub-scales of the Community Attitudes towards Mental Illness.** There will be a significant difference in the attitudes held among male and female participants in relation to the sub-scales of the Community Attitudes towards Mental Illness (CAMI) scale.



## **2. Methods**

### **2.1 Participants:**

The consenting participants will be administered a questionnaire investigating their attitudes towards the mentally ill, empathy and personality. The procedures followed and results obtained from this study will be reported accordingly. A sample population of 98 undergraduate and postgraduate students enrolled at numerous Dublin city centre college's comprised this study. The participants consisted of psychology students (n=34), business students (n=34), and law students (n=30), All participants were obtained by means of convenience sampling. Psychology students accounted for 34.7% of the data collected along, business students accounted for 34.7% while law students accounting for 30.6% of the data collected. In relation to age categories, 51% of the sample group were aged between 25 and 34, 35.7% were aged between 18 and 24, 9.2% were aged between 35 and 55 and 4.1% accounted for the category 55+. The female participants accounted for 57.1% of the sample while the male participants accounted for 42.9% of the sample.

### **2.2 Materials:**

A short demographic questionnaire was devised to obtain the participants gender, age range, experience with mental illness, and academic field of study (see Appendix B). Also included are three standardised questionnaires; The Community Attitudes towards Mental Illness scale (Taylor & Dear, 1981) (see Appendix C), the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998) (see Appendix D), and the Ten-Item Personality Inventory (Gosling, Rentfrow, and Swann Jr., 2003) (see Appendix E). Students also signed a consent form (see Appendix A) A pen/pencil was used to fill out all questionnaires.

The CAMI scale is a 40-item self-report survey of good construct validity and internal consistency that uses a 5-point liker type scale (5 = "Strongly agree" to 1 = "Strongly disagree"). Taylor and Dear (1981) developed CAMI and proposed four sub-scales: Authoritarianism, Benevolence, Social Restrictiveness, and Community Mental Health Ideology. The reliability of this scale ranges from .68 Authoritarianism to .88 Community Mental Health Ideology (Taylor and Dear, 1981). The subscale authoritarianism is the belief that mentally ill people are substandard individuals who need to be kept in check by others (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). An example would be 'Mental patients need the same kind of control and discipline as a young child'. The factor social restrictiveness contends that people with mental illness are dangerous and a threat (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). The statement 'Anyone with a history of mental problems should be excluded from taking public office is 124' suggests social restrictiveness. Subscribing to a paternalistic and sympathetic viewpoint toward the mentally ill based on humanistic and religious principles is benevolence (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). The item 'Our mental hospitals seem more like prisons than like places where the mentally ill can be cared for' suggests benevolence. The subscale community mental health ideology suggests mentally ill clients can benefit from community-based treatment (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). A statement on the CAMI related to this factor is 'The best therapy for many mental patients is to be part of a normal community'.

The Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998) is a 30 item questionnaire. It consists of six negatively-worded items which are first reverse-scored. This scale uses a 5-point liker type scale (5 = "Strongly agree" to 1 = "Strongly disagree"). Caruso and Mayer (1998) state "that this test was found to significantly overlap with Mehrabian and Epstein's (1972) Emotional Empathic Tendency Scale". The scale demonstrated adequate internal consistency reliability as measured by coefficient of alpha (.86), with a sample of 793 adult and adolescent subjects. An example of a question is 'I feel like watching a sad movie', in which a high score would

suggest that the participant is high in empathy for that particular context. A total score is computed to reveal ones mean empathy score.

The Ten-Item Personality Inventory (Gosling, Rentfrow, and Swann Jr., 2003) is a personality scale in which each item consists of two descriptors, separated by a comma, using the common predictor, "I see myself as:". Each of the five items was rated on a 7-point scale ranging from 1 (disagree strongly) to 7 (agree strongly). The relatively low inter-item correlations in conjunction with the fact that the TIPI scales have only two items results in some unusually low internal consistency estimates. Specifically, the Cronbach alphas were .68, .40, .50, .73, and .45 for the Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience scales respectively. An example of a statement measuring agreeableness is 'I see myself as empathetic and warm'.

### **2.3 Design:**

This study is a Quantitative between groups and correlation quasi-experiment. It is quantitative because I will be collecting a numerical score. Between groups as the study involves two independent groups. Quasi-experiment because the groups are predetermined, participants either fall into one or the other e.g. Male or Female. The Criterion Variable (CV): The attitudes towards those with mental illness and the Predictive variable (PV): Gender, Empathy, Agreeableness and knowing someone with mental illness.

### **2.4 Procedure:**

Approval for the study was obtained from the Ethics Committee Board consisting of both internal and external examiners. I approached Psychology, Business and Law lecturers from

numerous Dublin City Colleges and obtained permission to distribute the questionnaires amongst the students prior to the start of their lecture. All willing participants who met the inclusion criteria; over 18 years of age, do not suffer from severe learning difficulties, and are either enrolled in psychology/ business or law, were recruited with use of a consent form. I informed participants about the nature of the study and also emphasised the anonymity of their responses. All Questionnaires will be destroyed 1 year after collection. All groups of participants (Business, Law, Psychology) were administered the questionnaire (see appendix) which took an average of 10-12 minutes to complete. After the collection of the questionnaires, participants were given time to ask any questions they may have in relation to the study. The statistical package for Psychology, SPSS/PASW (v. 21) software, was used to analyse the data and test the null hypotheses.

### 3. Results

#### 3.1 Sample

A sample population of 98 undergraduate and postgraduate students enrolled at numerous Dublin city centre college's comprised this study. The participants consisted of psychology students, business students, and law students (see figure 1), All participants were obtained by means of convenience sampling. In relation to age categories, 51% of the sample group were aged between 25 and 34, 35.7% were aged between 18 and 24, 9.2% were aged between 35 and 55 and 4.1% accounted for the category 55+. The female participants accounted for 57.1% of the sample while the male participants accounted for 42.9% of the sample.

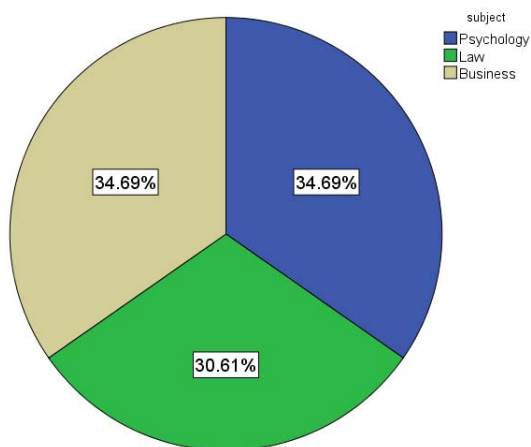


Figure 1. Participant population percentage in terms of their academic field.

#### 3.2 Hypothesis 1:

**Will psychology students, law students and business students have different mental health attitudes?** There will be a significant difference in the attitudes towards mental illness between psychology, business and law students with respect to the subscales of the Community Attitudes towards Mental Illness (CAMI) scale.

When we examine the mean number of errors for each group, it can be seen that the Law students had the most amount of errors. A one-way analysis of variance showed that there was significant difference between the three groups in terms of the number of errors made for Benevolence ( $F(2, 95) = 3.17, p = .047$ ) but not for the other three subgroups. HOV was not observed. Post hoc analysis confirmed that that differences were approaching significant in nature between the Business students ( $M = 3.94, SD = .55.$ ) with the Law students ( $M = 4.25, SD = .53, p = .067$ ) while there was no significant difference observed for psychology students between the other groups ( $M = 4.21, SD = .09$ ). Therefore the null hypothesis was accepted.

### **3.3 Hypothesis 2:**

**Will psychology students, law students and business students have different Empathy levels?** There will be a significant difference in the Empathy scores between psychology, business and law students with respect to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998).

When we examine the mean number of errors for each group, it can be seen that the Law students had the most amount of errors. A one-way analysis of variance showed that there was no significant difference between the three groups in terms of the number of errors made for Empathy ( $F(2, 95) = 1.82, p = .168$ )

### **3.4 Hypothesis 3:**

**Will there be a correlation between Empathy and Agreeableness in relation to the subscales of CAMI?** There will be a significant correlation between Empathy and Agreeableness in relation to the subscales of the Community Attitudes towards Mental Illness (CAMI) scale.

A two-tailed Pearson product-moment correlation was used to explore the third hypothesis. It was hypothesised that there would be a significant correlation between the criterion variable attitudes towards mental illness and the predictor variables Agreeableness and criterion variable

Empathy. There was a significant correlation observed between Empathy (M= 3.65, SD= .47) and Agreeableness (M=7.14, SD=2.0) ( $r(98) = -.211, p < .05, 2\text{-tailed}$ ).

However, in relation the sub-groups of CAMI and Empathy, a Pearson correlation coefficient found that there was a weak positive significant relationship with Benevolence (M = 4.13, SD = .55) ( $r(98) = .28, p < .05, 2\text{-tailed}$ ), a moderate positive significant relationship with Community Mental Health (M = 3.65, SD = .65) ( $r(98) = .322, p = .001, 2\text{-tailed}$ ). There was also a moderate negative significant relationship with Social Restrictiveness (M= 2.10, SD= .64) ( $r(98) = -.41, p < .05, 2\text{-tailed}$ ), and a weak negative significant relationship found with Authoritarianism (M= 2.00, SD= .52) ( $r(98) = -.28, p < .05, 2\text{-tailed}$ ). The null hypothesis can be rejected and there is a significant relationship between Empathy and the Sub-groups of CAMI.

Furthermore, in relation to predictor variables Agreeableness and the sub-groups of CAMI, a Pearson correlation coefficient found that there was a no significant relationship (see table 2). Therefore a multiple regression was not carried out.

Table 2: *Correlation table* showing the relationship between Agreeableness, Empathy the sub-groups of CAMI

Variable	Empathy	Benevol	ComHealth	SocialRe	Authoritar	Agreeablen
Empathy						
Benevol	.28**					
ComHealth	.32**	.61**				
SocialRe	-.41**	-.50**	-.65**			
Authoritar	-.28**	-.61**	-.70**	.56**		
Agreeablen	.21*	.08	.07	-.01	-.18	

\*  $p$  significant at .05 level (2-tailed)

\*\*  $p$  significant at .01 level (2-tailed)

### 3.5 Hypothesis 4:

**Will there be a difference in the attitudes towards mental illness between those who know someone with a mental illness and those who don't?** There will be a significant difference in the attitudes towards mental illness between those who know people with a mental illness and those who don't.

Table 3: *An Independent Samples T-test table, displaying the differences between students who know someone with mental illness and students who do not, in relation to the CAMI scale.*

<b>Variables</b>	<b>Groups</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>	<b>df</b>	<b>p</b>
<b>Benevolence</b>	Know	4.27	.45	3.78	27	.001
	Don't	3.72	.63			
<b>Social Restrictiveness</b>	Know	1.99	.60	2.88	95	.005
	Don't	2.42	.67			
<b>Community Health</b>	Know	3.81	.54	3.79	28	.001
	Don't	3.16	.74			
<b>Authoritarianism</b>	Know	1.89	.49	-3.60	95	.001
	Don't	2.32	.48			

As table 3 indicates the results from the fourth hypothesis, a two-tailed independent samples t-test revealed that there was a significant difference between those who know someone with a mental illness over participants who do not know someone with a mental illness. The study checked for normal distribution. Homogeneity of variance was observed for all subscales with normal distribution. The significant differences reported are indicated by the subscales Authoritarianism ( $t = -3.60$ ;  $df = 95$ ;  $p < .05$ , 2-tailed), Social Restrictiveness ( $t = -2.88$ ;  $df = 95$ ;  $p < .05$



2-tailed), Community Mental Health Ideology ( $t = 3.79$ ;  $df = 28$ ;  $p < .05$ , 2-tailed) and Benevolence ( $t = 3.78$ ;  $df = 27$ ;  $p < .05$ , 2-tailed). Examination of the means (see table 3) suggest that individuals who know someone with a mental illness do not support the notion of unwarranted institutionalising nor do they desire an abnormal amount of distance from the mentally ill or view them as a serious threat. The results further indicate that participants who know someone with a mental illness support the idea of the mentally ill living within their community and are kind and sympathetic.

Therefore, the t-test rejects the null hypothesis and confirms a difference between the two groups with respect to the CAMI subscales for Authoritarianism, Social Restrictiveness, Community Mental Health Ideology and Benevolence.

### **3.6 Hypothesis 5:**

**Will females be more empathetic than males?** Females will be significantly more empathetic than males in relation to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998).

It was hypothesised that there would be a significant difference between the predictive variable gender and the criterion variable empathy. For this, a two-tailed independent samples t-test was conducted in order to determine any significant gender differences. Normal distribution was checked along with homogeneity which was not observed for all of the subscales.

Females (mean= 3.82, SD= .50) were found to have higher levels of empathy than males (mean= 3.42, SD= .31). The 95% confidence limits show that the population mean difference of the variables lies somewhere between -.53 and -.24. An independent samples t-test found that there was a statistically significant difference between empathy level of males and females ( $t(98) = -4.87$ ,  $p < .001$ ). Therefore the null can be rejected.

### 3.7 Hypothesis 6:

**Will there be a difference in the attitudes held among male and female students in relation to the CAMI scale?** There will be a significant difference in the attitudes held among male and female participants in relation to the subscales of the Community Attitudes towards Mental Illness (CAMI) scale.

It was hypothesised that there would be a significant difference between the predictive variable gender and the criterion variable attitudes towards mental illness. For this, a two-tailed independent samples t-test was conducted in order to determine any significant gender differences. Normal distribution was checked along with homogeneity which was observed for all of the subscales.

The results of the t-test analyses found that males and females were not observed to significantly differ with respect to the CAMI subscales of Authoritarianism ( $t = -.60$ ;  $df = 96$ ;  $p > .05$ , 2-tailed), Benevolence ( $t = -1.31$ ;  $df = 96$ ;  $p > .05$ , 2-tailed), Social Restrictiveness ( $t = -.01$ ;  $df = 96$ ;  $p > .05$ , 2-tailed) and Community Mental Health Ideology ( $t = -.39$ ;  $df = 96$ ;  $p > .05$ , 2-tailed).

Therefore, the t-test accepts the null hypothesis of no significant differences between male and female participants.

## 4. Discussion

### 4.1 Results

The present study aimed to investigate the differences between psychology, business and law students with respect to Mental Health attitudes, Empathy and agreeableness. Other predictor variables were also explored and analysed in the aim of obtaining a more detailed account of this phenomena; a) whether there was difference between gender in respect to Empathy and to the subscales of the Community Attitudes towards Mental Illness, b) whether knowing somebody with a mental illness affected ones scores in relation to Empathy and to the subscales of the Community Attitudes towards Mental Illness, and c) if there is a relationship between Empathy and Agreeableness in relation to the subscales of the Community Attitudes towards Mental Illness.

With regards to the first hypothesis of this study, a one-way analysis of variance showed that there was a significant difference observed between the three groups psychology, business and law students with respect to the subscale Benevolence of the Community Attitudes towards Mental Illness ( Taylor and Dear, 1981) in terms of the number of errors made. Post hoc analysis confirmed that the differences were approaching significance in nature between Law students and business students ( $p = .067$ ). While there was no observed significant difference between psychology students and the other groups. These findings do not reflect the sparse literature currently available. For instance, Sheridan (2011) tested the differences between Psychology and Law students with respect to the sub-groups of the CAMI scale (Taylor and Dear, 1981), results showed that Law students displayed significantly higher levels of Authoritarianism, and psychology students displayed significantly higher levels in Community Mental Health Ideology, however in contrast law students were found to have the highest mean score for Community Mental Health Ideology in this present study. Interestingly business students scored the most negatively in their attitudes toward mental

illness on all of CAMI's sub-scales. As business courses and related studies consist of a large proportion of third level education, does this suggest that the general student population hold more negative attitudes towards mental illness than psychology and law students? What is clear is that this study should be repeated with an increased sample size as one class from each area of academia was tested which cannot be an accurate representation of the whole student population. Also the mean score for age was lower for business than it was for psychology and law. Nordt, Rossler and Lauber (2006) reported that older people within society actually held less stigmatising attitudes towards mental illness than did younger people, thus this is an area in which can be further researched. In reference to my research aim discussed in the literature review, it is fair to say that this present study has yielded no clear advantages psychology students possess in relation to attitudes than their student counterparts.

The second hypothesis of this study proposed that there would be a significant difference in the empathy levels between psychology, business and law students with respect to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998). In fact, a one-way analysis of variance showed that there was no significant difference between the three groups in terms of the number of errors made for Empathy. Therefore, the null hypothesis was accepted. However, it was observed that all three groups portrayed high mean scores for empathy, suggesting that although there was no significant difference between the groups, both business and law students showed higher empathy levels than expected. Therefore this result is not consistent with research literature which emphasises that business professionals have been found to score low on empathy (Holt and Marques, 2012; Sautter, Brown, Littvay, Sautter, Bearnes, 2008), and law students too (Wilson, Prescott and Becket, 2012). Further, the result also defies Konrath's (2009) meta-analysis study combining the results of 72 different studies of American college students conducted between 1979 and 2009 showed that after the year 2000, there was a substantial decrease in reported empathy levels in students, which are about 40% lower from their counterparts of 30 years ago, as measures by standardised tests of this personality trait. In relation to psychology students, the result adds

weight to one side of a contrasting debate. As discussed earlier, increased knowledge of mental illness has been found to increase stigma in mental health professionals (Ryder and Webster, 2002), while in increased contact with the mentally ill has led to decreased stigma (Alexander and Bruce, 2003). An aim of this hypothesis was to explore the gap in literature comparing the relationship between empathy and psychology in respect to other academic fields. The observed high mean score suggests that knowledge and exposure to mental illness does not decrease empathy levels in students, at least not to the extremes suggested by Sadow, Ryder and Webster (2002). Therefore this would suggest that empathy continues to be a key tool in the de-stigmatisation of stereotypes (Brown, Macintyre and Trujillo, 2003; Batson, Polycarpou and Harmon-Jones et al., 1997). However; there are limitations to this hypothesis with in this study. Psychology students could well have had a significantly higher empathy mean score than both business and law students prior to course enrolment. A longitudinal repeated measures design would give a more thorough insight into the value of this result. In addition, this study would also benefit if conducted throughout Ireland, as the results from Dublin students may not reflect those of students studying in other counties.

In regards to the third Hypothesis of this study, a two-tailed Pearson product-moment correlation found there was a significant correlation observed between Empathy and Agreeableness. Agreeableness has been shown to correlate with empathy in an abundance of studies (Graziano, Habashi, Sheese, Tobin, 2007; Del Barrio, Aluja and Garcia, 2004). Thus, this is in line with current literature and further signifies the study of Del Barrio et al. (2004) who tested 832 Spanish adolescents using both Bryant's Empathy Index for Children and Adolescents and the Big Five Questionnaire which showed that there was a strong correlation between positive traits such as agreeableness and empathy. In addition, Gray (2009) found that Agreeableness, empathic concern and personal distress was found to be associated with increased helping, when participants were presented with an unexpected situation. However, regardless of its significance, it would be advisable to replicate this test with an increased sample size and also with a more extensive personality scale. The Ten-Item Personality Inventory (TIPI) (Gosling, Rentfrow, and Swann, 2003)

has a relatively low inter-item correlation because of the fact that the TIPI scale has only two items results in some unusually low internal consistency estimates. Specifically, the Cronbach alphas for each are; Extraversion .68, Agreeableness .40, Conscientiousness .50, Emotional Stability .73, and Openness to Experience .45. Thus, these scales provide an example of how validity can exceed reliability. A more substantial scale like the Big Five inventory (Goldberg, 1993) would increase the reliability of these findings. The TIPI was adopted for this present study as it was a convenient addition to an already substantial instrument. Agreeableness could possibly be targeted in anti-stigmatising campaigns as it has been found to correlate with empathy, thus by increasing ones agreeableness in turn will increase their empathy and stigma will decrease as a result (Macintyre and Trujillo, 2003).

However, in relation to the sub-groups of CAMI and Empathy, a two tailed Pearson correlation coefficient found that there was a moderate positive significant relationship with Community Mental Health Ideology, a weak positive significant relationship with Benevolence, a moderate negative significant relationship with Social Restrictiveness, and a weak negative significant relationship found with Authoritarianism. These findings suggest that those who scored high in empathy also scored moderately high on Community Mental Health Ideology, weakly high on Benevolence, moderately low in Social Restrictiveness and weakly low in Authoritarianism. This further affirms research literature suggesting there is a relationship between high empathy scores and positive attitudes towards mental illness (Bethany, Gapinski, Brownell et al., 2003; Batson, Polycarpou and Harmon-Jones et al., 1997). Specifically, Polycarpou and Harmon-Jones et al. (1997) showed inducing empathy improved attitudes towards groups suffering from AIDS and homelessness and even convicted murderers, while Brown, Macintyre and Trujillo (2003) discovered that empathetic interventions towards people with HIV/AIDS greatly reduced a group's stigma. Thus these results have led to effective treatment and interventions. As there are no past studies to our knowledge directly measuring the relationship between Empathy and the sub-groups of CAMI, this finding has therefore contributed to the growing field of mental health attitudes by exploring and

portraying the direct relationship between empathy and the CAMI sub-groups. This result could be used to create more specific empathy inducing interventions that target these sub-groups individually e.g. to increase benevolence and to decrease social restrictiveness. The null hypothesis can be rejected and there is a significant relationship between Empathy and the Sub-groups of CAMI.

Exploration of the fourth hypothesis utilizing a two-tailed independent samples t-test revealed that there was a significant difference between those who know someone with a mental illness over participants who do not know someone with a mental illness. Participants who knew someone with mental illness were found to score significantly higher on Benevolence and Community Mental Health Ideology, and lower on Authoritarianism and Social Restrictiveness. These findings add weight to the phenomena that interaction with people suffering from mental illness increases ones positive attitudes respectively (Alexander and Bruce, 2003), and can be observed in present literature. For instance, Morrison (2011) conducted research examining nursing student's attitudes towards mental illness. Students who had previous experience with people with mental illness or themselves having availed of treatment, were shown to be less authoritarian and socially restrictive, and more benevolent and ideological, suggesting that the more contact a student has with the mentally ill, the less fear the student has, and the more positive their attitudes become (Morrison, 2011). These results hold societal importance as studies have revealed that positive attitudes towards mental illness can encourage those needing intervention to seek it rather than the alternative social isolation, distress and difficulties in employment faced by sufferers (Crisp and Gelder, 2005). As highlighted in the introduction, suicide rates increase the longer one is left untreated (Bertelsen, Jeppesen, Petersen and Thorup, 2007); also the longer duration psychosis is left untreated reduces the likelihood of full recovery (Birchwood, Todd and Jackson, 1998). The significant results as recorded with this present study in regard to knowledge and exposure to mental illness can lead to the development and implementation of anti-stigma campaigns to

increase the likelihood of early diagnosis. Much like Barney et al. (2010), who used the CAMI scale to assess the effectiveness of stigma-reducing programs, with regards to mental health problems from a public point of view in the United States. Results demonstrated a significant decrease in negative attitudes after these programs were initiated. To gain a better understanding of this present finding, it would be beneficial to examine to what exact degree does one interact with a person with mental illness and what is their level of knowledge in regards to mental illness? This will provide a platform in the development of anti-stigma programmes and give insight as to the requirements for affective intervention.

Finally the fifth hypothesis found that females are significantly more empathetic than males in relation to the Multidimensional Emotional Empathy Scale (Caruso & Mayer, 1998) and thus is consistent with research literature in the area (Fan, Han and Mao, 2008; Vicenta Mestrea, Sampera, Frías and Tura, 2009). Fan, Han and Mao (2008), investigated gender difference in the neural mechanisms underlying empathy for pain in which females reported a higher level of perceived pain than males, thus projecting more empathy than males. This research is also in tune with the studies of Toussaint and Webb's (2006) and Boyle, Williams, Brown, Molloy et al. (2009) where results showed that females were significantly more empathetic than males when evaluated with respect to the Jefferson Scale of Physician Empathy. An important component of this present research is to attempt to explain possible reasons for the increasing ratio of females to males within psychology, as Cynkar (2007) found females make up a substantial percentage of psychology graduate students with nearly 72% of new Psychology doctorates being women (Cynkar 2007). In contrast, Economics PhD students in both America and Sweden consist of only 32% females (Jonung and Stahlberg, 2008), while female law students represent an average of 47% of first- and second-year associates (Weiss, 2011). However the non-significant findings in relation to the second hypothesis in empathy levels among psychology, business and law students somewhat diminishes the clarity of this result. Yes female students are more empathetic, however psychology students as a whole have not been found to be significantly more empathetic. Accepting this limitation, this result still adds weight to



current literature. Future studies could look at the specific empathy levels of male and female students within psychology, business and law studies.

#### **4.2. Conclusion**

As alluded to above, this study has provided information which may help to improve current anti-stigma campaigns or in the development of new interventions. The significant findings such as gender differences and differences in knowing somebody with mental illness as opposed to not knowing one are of specific importance in relation to stigma campaigns. General limitations to this study include sample size, uneven age means, and a personality questionnaire with low reliability. However there are many positives to be taken from this study although the main hypothesis wasn't significant. Further studies in relation to the difference in empathy levels and mental health attitudes between psychology, law and business students are advised, as current literature does suggest strength for the assumption. Unfortunately this study was unable to add weight, perhaps because of the limitations discussed.

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## Appendix

### Appendix A: Consent sheet.

#### Survey Information Consent Form

The aim of this research is to explore the relationship between attitudes to mental health, empathy and personality. It will also look at participant differences regarding course studied (Psychology/Business/Law) and gender on mental health attitudes.

The research involves a survey style questionnaire. Topics explored within the survey include demographic information, Empathy, Mental Health Attitudes and Personality. The survey will take approximately 10 minutes to complete. Your participation would be greatly appreciated and will allow us to work together to develop services.

#### **PLEASE NOTE:**

- Should you consent to partake, any information you provide will be confidential and anonymous.
- Participation in the study is on a **voluntary basis only**. As the information you provide will be anonymous, once you have submitted the survey you will not be able to withdraw from the study at a future point in time.
- The information will be used to complete an undergraduate research dissertation which will be archived in a college library. It may be used in a report or presented at a conference.
- Your data will be securely stored and destroyed a year after the research has been submitted. If you have any questions or are unclear about any of the information, please inform the survey distributor.
- If you are unhappy with the conditions for any reason, please indicate to the survey distributor that you do not wish to participate in the research.
- If you are satisfied with these conditions, by ticking '**YES**' below and filling in the survey, you are **indicating consent** to participate in this survey.

I confirm that I have read the information sheet and am agreeable to the conditions outlined.

I hereby consent to participate in the current study on a voluntary basis. YES  NO

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Regarding completion of the survey:** Please aim to answer all questions which are relevant to you in an honest manner. If you have any questions when filling out the form, or are unclear about any of the instructions, please ask the distributor for clarification.

**Appendix B: Demographic Questionnaire**

**Section A**

Please tick the most relevant answer in relation to yourself.

1. **GENDER**      Male       Female

2. **AGE:**      18 – 24       25 – 34       35 – 54       55 +

3. **Have you ever volunteered/worked with individual/s who have a mental illness?**

YES       NO

4. **Do you know anyone with a mental illness?**

YES       NO

5. **Please indicate your field of study.**

Psychology       Law       Business

**Appendix C: Community Attitudes towards Mental Health (Taylor and Dear, 1981).**

**Section B**

1) SD = Strongly Disagree    2) D = Disagree    3) NA nor ND = Neither Agree nor Disagree, 4) A= Agree and  
5) SA = Strongly Agree.

		<i>Strongly Disagree</i>		<i>Strongly Agree</i>	
1.	The mentally ill should not be given any responsibility.	1	2	3	4 5
2.	The mentally ill should be isolated from the rest of the community.	1	2	3	4 5
3.	A woman would be foolish to marry a man who had suffered from a mental illness, even though he seems fully recovered.	1	2	3	4 5

4.	I would not want to live next door to someone who had been mentally ill.	1	2	3	4	5
5.	Anyone with a history of mental problems should be excluded from taking public office.	1	2	3	4	5
6.	The mentally ill should not be denied their rights.	1	2	3	4	5
7.	Mental patients should be encouraged to assume the responsibilities of normal life.	1	2	3	4	5
8.	No one has the right to exclude the mentally ill from their neighbourhood.	1	2	3	4	5
9.	The mentally ill are far less danger than most people suppose.	1	2	3	4	5
10.	Most women who were once patients in a mental hospital can be trusted as Baby-sitters.	1	2	3	4	5
11.	One of the main causes of mental illness is a lack of self-discipline and will power.	1	2	3	4	5
12.	The best way to handle the mentally ill is to keep them behind locked doors.	1	2	3	4	5
13.	There is something about the mentally ill that makes it easy to tell them from normal people.	1	2	3	4	5
14.	As soon as a person shows signs of mental disturbances, he should be hospitalized.	1	2	3	4	5
15.	Mental patients need the same kind of control and discipline as a young child	1	2	3	4	5
16.	Mental illness is an illness like any other.	1	2	3	4	5
		<i>Strongly Disagree</i>				<i>Strongly Agree</i>
17.	The mentally ill should not be treated as outcasts from society.	1	2	3	4	5
18.	Less emphasis should be placed on protecting the public from the mentally ill.	1	2	3	4	5
19.	Mental hospitals are an outdated means of treating the mentally ill.	1	2	3	4	5
20.	Virtually anyone can become mentally ill.	1	2	3	4	5
21.	The mentally ill for too long have been the subject of ridicule.	1	2	3	4	5
22.	More tax money should be spent on the care and treatment of the mentally ill.	1	2	3	4	5
23.	We need to adopt a far more tolerant attitude toward the mentally ill in our society.	1	2	3	4	5
24.	Our mental hospitals seem more like prisons than like places where the mentally ill can be cared for.	1	2	3	4	5
25.	The mentally ill don't deserve our sympathy.	1	2	3	4	5

26.	The mentally ill are a burden on society.	1	2	3	4	5
27.	Increased spending on mental health services is a waste of tax euro.	1	2	3	4	5
28.	There are sufficient existing services for the mentally ill.	1	2	3	4	5
29.	It is best to avoid any one who has mental problems.	1	2	3	4	5
30.	We have a responsibility to provide the best possible care for the mentally ill.	1	2	3	4	5
31.	Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community.	1	2	3	4	5
32.	The best therapy for many mental patients is to be part of a normal community.	1	2	3	4	5
33.	As far as possible, mental health services should be provided through community based facilities.	1	2	3	4	5
34.	Locating mental health services in residential neighbourhoods does not endanger local residents.	1	2	3	4	5
35.	Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services.	1	2	3	4	5
36.	Mental health facilities should be kept out of residential neighbourhoods.	1	2	3	4	5
37.	Local residents have a good reason to resist the location of mental health services in their neighbourhood.	1	2	3	4	5
38.	Having mental patients living within residential neighbourhoods might be good therapy but the risks to residents are too great.	1	2	3	4	5
39.	It is frightening to think of people with mental problems living in residential neighbourhoods.	1	2	3	4	5
40.	Locating mental health facilities in a residential area downgrades the neighbourhood.	1	2	3	4	5

**Appendix D: Multidimensional Emotional Empathy Scale(Caruso & Mayer,1998).**

PTO

Section C		Strongly Disagree			Strongly Agree	
1.	I feel like crying when watching a sad movie.	1	2	3	4	5
2.	Certain pieces of music can really move me.	1	2	3	4	5
3.	Seeing a hurt animal by the side of the road is very upsetting.	1	2	3	4	5

4.	I don't give others' feelings much thought.	1	2	3	4	5
5.	It makes me happy when I see people being nice to each other.	1	2	3	4	5
6.	The suffering of others deeply disturbs me.	1	2	3	4	5
7.	I always try to tune in to the feelings of those around me.	1	2	3	4	5
8.	I get very upset when I see a young child who is being treated meanly.	1	2	3	4	5
9.	Too much is made of the suffering of pets or animals.	1	2	3	4	5
10.	If someone is upset I get upset, too.	1	2	3	4	5
11.	When I'm with other people who are laughing I join in.	1	2	3	4	5
12.	It makes me mad to see someone treated unjustly.	1	2	3	4	5
13.	I rarely take notice when people treat each other warmly.	1	2	3	4	5
14.	I feel happy when I see people laughing and enjoying themselves.	1	2	3	4	5
15.	It's easy for me to get carried away by other people's emotions.	1	2	3	4	5
16.	My feelings are my own and don't reflect how others feel.	1	2	3	4	5
17.	If a crowd gets excited about something so do I.	1	2	3	4	5
18.	I feel good when I help someone out or do something nice for someone.	1	2	3	4	5
19.	I feel deeply for others.	1	2	3	4	5
20.	I don't cry easily.	1	2	3	4	5
21.	I feel other people's pain.	1	2	3	4	5
22.	Seeing other people smile makes me smile.	1	2	3	4	5
23.	Being around happy people makes me feel happy, too.	1	2	3	4	5
24.	TV or news stories about injured or sick children greatly upset me.	1	2	3	4	5
25.	I cry at sad parts of the books I read.	1	2	3	4	5
26.	Being around people who are depressed brings my mood down.	1	2	3	4	5

27.	I find it annoying when people cry in public.	1	2	3	4	5
28.	It hurts to see another person in pain.	1	2	3	4	5
29.	I get a warm feeling for someone if I see them helping another person.	1	2	3	4	5
30.	I feel other people's joy.	1	2	3	4	5

**Appendix E: The Ten-Item Personality Inventory (Gosling, Rentfrow, and Swann Jr., 2003).**

**Section D**

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the **extent to which you agree or disagree** with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1 = Disagree strongly, 2 = Disagree moderately, 3 = Disagree a little, 4 = Neither agree nor disagree, 5 = Agree a little, 6 = Agree moderately, 7 = Agree strongly

**I see myself as:**

1. \_\_\_\_\_ Extraverted, enthusiastic.
2. \_\_\_\_\_ Critical, quarrelsome.
3. \_\_\_\_\_ Dependable, self-disciplined.
4. \_\_\_\_\_ Anxious, easily upset.
5. \_\_\_\_\_ Open to new experiences, complex.
6. \_\_\_\_\_ Reserved, quiet.
7. \_\_\_\_\_ Sympathetic, warm.
8. \_\_\_\_\_ Disorganized, careless.
9. \_\_\_\_\_ Calm, emotionally stable.
10. \_\_\_\_\_ Conventional, uncreative.

Thank you for completing the survey. Your participation is much appreciated.

