# The Preliminary Outcomes of Mindfulness and Mental Health Interventions Across Deis and Non Deis Schools

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# Abstract

The purpose of this research is to investigate the effectiveness of a Mindfulness and Mental Health intervention for adolescents aged 15 to 18 years, across co-educationally disadvantaged schools as outlined by the department of education in Ireland, one being a Deis school, and one a Non-Deis school in the greater Dublin area.

A mixed methodology experiment design was used to examine the differences between and within groups following a Mindfulness & Mental Health intervention. This examined the extent to which the interventions were attributable to increases measured in mindfulness awareness, accepting, describing, observing and decreases in stress, anxiety and depression levels across a co-educational sample of leaving cert students.

Participation in the Mindfulness and Mental-Health interventions significantly lowered levels of stress and anxiety and increased levels of Mindfulness Awareness. These results support existing research regarding engagement in regular Mindfulness practice and Mental Health discussions, having beneficial effects on individual's wellbeing.

Keywords: Mindfulness, Mental-Health, Stress, Anxiety, Depression, Adolescents

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# Introduction

Recent years have witnessed a growing portion of school aged children experiencing a myriad of social, emotional, and behavioural problems that interfere with their interpersonal relationships, school success and their potential to become competent adults and productive citizens (Greenberg, Domitrovich, & Bumbarger, 2001).

According to recent research published by RCSI (Royal College of Surgeons in Ireland, 2013) one in five young Irish adults aged 19-24, and one in six young people aged 11-13 are experiencing ill-mental health at any given time. This research also found that experiencing ill mental health in early life, situates young people at an increased risk of further episodes of ill mental health during their adult years (Cannon, et al. 2013).

Additionally, the emotional wellbeing and mental health of children and adolescents is of fundamental importance, as unmet wellbeing and mental health needs occurring in these stages of development, consistently point to emerging and more severe mental health difficulties in adulthood (McDougal, 2011).

### Psychological wellbeing throughout Adolescence

The World Health Organisation (2007, p. 5) defines adolescent mental health as; "the capacity to achieve and maintain optimal psychological functioning and wellbeing. Outlined as being directly related to level reached and competence achieved in psychological and social functioning".

In more recent times, there has been a popular perception emerging that the health and well-being of young people has never been better (Burke, 2010). While this may be true for the physical health of some young people, the reality is that young people's psychological and mental health has never been worse (Patel, Flisher, Hetrick & McGorry, 2007).

Student number; 1740886

In 2008, the World Health Organisation published evidence that points to high rates of both clinical and sub-clinical rates of psychological distress and mental disorders among young people. From a lifespan perspective, adolescence proves to be the peak period for the onset of ill mental health and it is young people who carry the burden of ill mental health (Eckersley, 2011).

With adolescence and emerging adulthood considered to be the most productive years of life (Arnett, 2000), these figures raise significant concerns about the impact of ill mental health, not only on young people themselves, but also on their families, communities and that of a wider society.

During this critical period, individuals must negotiate a range of intrapersonal, relational, vocational and existential challenges before taking on the roles and responsibilities that await them in adulthood. This orientation may be explained and understood in terms of "normative adolescent development" of which supports numerous theories beyond the breadth of this paper (e.g. Bowlby 1982, attachment and separation through the life cycle; Erickson 1959, identity and role confusion; Inhelder and Piaget 1958, formal operations and adolescent peer/social influences).

Although mental health is becoming less of a taboo than it was many years ago, adolescents in particular are still scared and feel ashamed to share their experiences with others. The term mental illness is still frightening for young people and the language used to explain ill-mental health can be daunting for them. Highlighting the fundamental differences between understanding what it is to experience ill mental health and to have a mental illness may contribute to reducing confusion around this spectrum and provide young people to feel a sense of hope about their own ability to recover and to live a meaningful life. The research above effectively highlights the need to maximise the efficiency and effectiveness of mental health promotion for youths in Ireland. Furthermore, the age bracket between 15 to 18 years needs to be further evaluated. Further research in the area of developing an intervention that promotes and supports the development of being aware of one's emotional feelings and how they affect one's thoughts and behaviours and overall wellbeing could have the potential to contribute to a reduction in the incidence, impact and continuity of ill-mental health among Irish youths.

#### Mental Health and the Adolescent Population in Ireland

Adolescence is noticeably a time of increased stress and lower levels of self-efficacy and a stage in a young person's life that is particularly vulnerable. It is also the stage that typifies the peak period of incidence for mental health problems.

Prevalence rates of ill-mental health among the youth population in Ireland have been limited, however, there have been a number of studies on the psychological and mental health of young people between the ages of 12 and 25 (McDonough, Fahy, & Fitzgerald, 2003) which have used standardised self-report measures to gather data and have uncovered high levels of psychopathology, particularly depression and anxiety, alcohol and substance use, self-harm and suicidal ideation behaviour among young Irish people.

Almost 75% of all serious mental health difficulties first emerge between the ages of 15 and 25 (Hickie, 2004; Kessler et al, 2005). This peak in mental health problems is generally linked with a decrease in protective factors such as self-esteem, optimism and positive coping strategies (Dooley & Fitzgerald, 2012). Most studies have found that one in five young people experience some degree of emotional distress at any one time (Lynch, Mills, Daly & Fitzpatrick, 2006; Sullivan, Arensman, Keeley, Corcoran & Perry, 2004).

In an evaluation of 12–15 year olds in eight Dublin schools it was found that mental health problems are widespread among Irish adolescents. Out of 723 students assessed, 19.4% were found to be at-risk for developing a mental health disorder. Within this at-risk group, 12.1% expressed possible suicidal intent and 45.7% expressed suicidal ideation (Lynch, Mills, Daly, & Fitzpatrick, 2004). In this context it is vital that there is a National strategy for early identification and intervention to mitigate risk factors relating to mental health and ill-mental health, (WHO, 2012).

With the National policy on mental health and suicide prevention highlighting the important role schools play in addressing mental health concerns (HSE, 2005), increased attention in research to the promotion of children's social and emotional competence in schools has come surging to the surface in the past decade. Additionally, a paradigm shift in psychology has been unfolding within recent years across the literature, witnessing a shift from preoccupation with repairing weaknesses, to the enhancement of positive qualities and preventing problems before they arise (Diener & Seligman 2002, Seligman & Csikszentimihalyi 2000).

In 2013, the Department of Education launched a national policy promoting the mental health and suicide prevention for young people in post primary education. The guidelines report that the most effective interventions in schools involve one or more of the following; a social competence approach, a whole-school approach, continuous implementation & review of interventions, promotion of positive wellbeing rather than ad hoc reaction and social support for young people (DOE, 2013). Thus, the guidelines provide the generic parameters and framework for schools to achieve positive mental health.

While this is a positive step promoting adolescent wellbeing and mental health in Ireland, the guidelines do not discuss or detail factors which underpin or predict wellbeing and mental health, thus appearing to be more of a generic systems approach. Elucidating specific factors, processes or mechanisms which mediate or predict adolescent wellbeing is important for psychological research, but more so for adolescents and the settings and systems within which they function and develop. Kinnumen, Laukkanen, Kiviniemi and Kylma (2010) further posit, that there is a significant lack in understanding of factors which should be considered in order to promote the wellbeing and mental health of adolescents.

Interestingly, theoretical literature supports a social and emotional competence perspective in which youths with positive social and emotional skills demonstrate resiliency when confronted with stressful situations (Greenberg et al. 2003).

Furthermore, research has consistently found a positive correlation between measures of youths' social and emotional skills and measures of later psychological health (Greenberg et al, 2001). Conjointly highlighting the need for interventions targeting adolescents social and emotional skills early before possible mental health difficulties emerge.

In the Irish adolescent population, there have been two large scale studies that have examined psychological disorders and well-being. Martin, Carr, Burke, Carroll and Byrne (2006) reported that 19% of the adolescent population sample met the criteria for at least one psychological disorder. Sullivan, Arensan, Keeley, Corcoran and Perry (2004) reported that 27% of the adolescent population sample across Cork and Kerry experienced serious personal, emotional, behavioural or mental health problems.

Research to date has predominately focused on the prevalence of wellbeing and mental health difficulties across a population sample. Thus, there is a gap for research which could explore additional underlying factors and practices that may improve wellbeing and mental health within adolescents in Ireland.

#### <u>Stigma and Mental Health</u>

While it is widely recognised that there is a need to explore all possible avenues to promote a culture of health and wellness amongst Irish youths', it is similarly important that there is meaningful dialogue and education to change the stigma associated with mental illness.

Reducing stigma is exceptionally challenging, whether it is within an educational setting or across wider society. However, taking small steps to implement a positive mental health strategy amongst secondary school students may lay the groundwork for a friendlier, equitable and stigma-free environment.

A UK report on social exclusion and mental health (Social Exclusion Unit, 2004) has recognised the need for educational initiatives in schools to promote mental health. Mental health promotion in schools has been described as one way of raising awareness about mental health as well as enhancing personal mental health (Dunn, 1999).

Respectively, a significant amount of research (Watson et al. 2004; Dunn, 1999; Boysen & Vogel, 2008) places strong emphasis on the need to educate young generations in order to alleviate negativity and pessimism associated with mental health disorders. Gale (2001) argues that mental health promotion can benefit all persons, regardless of whether they have experienced mental health problems. Rutz (2001) further accentuates the importance of mental health education as an early form of intervention against stigmatization.

The Positive Mental Health (PMH) Intervention Programme, recognises that despite effective treatment for many disorders, the fear of stigmatization often deters people from acknowledging illness or from seeking help (Watson et al., 2012).

Stigma is caused by a lack of understanding of mental health by society (British Medical Association 2006). Individuals and societies have long distanced themselves from those with ill-mental health, due to fear, misunderstanding, ignorance and bias. Stigma is defined as 'the way certain attributes are socially agreed as worthy of devaluation and social avoidance' (Gilbert, 2004). Further evidence posits that stigmatizing attitudes towards people with mental health problems are highly prevalent throughout modern cultures, (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000).

#### Disadvantaged Adolescents and Psychological effects therein

A mounting body of research exploring the various outcomes of childhood disadvantaged conditions concludes that poor children have lower achievement scores, inferior educational outcomes, (such as dropping out of secondary school) behavioural problems, mental health problems and worse overall health (Magnuson & Votruba-Drzal, 2009). Thus, children at the low end of the socioeconomic spectrum have inferior academic achievement and substantially worse educational attainment when compared with their higher socioeconomic peers (McColloch, 2013).

Exposure to environmental stress is often shown to be a key contributor to the aetiology and maintenance of internalising and externalising disorders in youth (Compas et al., 2001). Furthermore, as many as one quarter of impoverished youth have social and emotional difficulties relative to their more economically advantaged peers (Keenan et al., 1997).

Emerging evidence also supports at least one mechanism throughout such childhood adversity triggers neurobiological events altering brain development (Anderson., 2003; Shonkoff et al., 2009; Teicher et al., 2002) potentially impairing the stress response systems that underlie cognitive and emotion regulatory capacities (Anderson and Teicher 2009). Evidently, children accumulate deficits in both cognitive and emotional regulation abilities, two critical determinants of productive learning, development and educational success (Heckman, 2011). Similar research from Magnuson and Votruba-Drzal (2009) explored the consequences of childhood poverty and found that poor children on average struggle more with inadequate self-regulation, behavioural problems, anti-social behaviour and mental health problems.

Exemplifying specific factors, processes and mechanisms which mediate or predict adolescent wellbeing accentuates importance for future psychological research. Mindfulness is one such strategy which may predict positive changes in the mental health of the young individual. During the last decade, however, the empirical study of mindfulness and the use of mindfulness techniques in clinical practice and that of an educational framework has been steadily expanding and exemplifying remarkable results with regard to treatment for ill mental health.

In an Irish context, the Ananda Programme developed by the centre of Mindfulness Ireland, supports the development of mindfulness based approaches in schools, through Mindfulness training for health care providers focusing on self-care in the work place. These organisations include, Barnardo's, Enable Ireland, and the HSE.

Accordingly, Siew and Khong (2009) discuss the rapid growth of mindfulness based approaches in the public domain. They agree that mindfulness is an innate human disposition, however they assert that mindfulness is not a technique which can be learned from textbooks or workshops, and further conclude that those teaching mindfulness must be experienced, active mindfulness practitioners themselves in order to elicit effective outcomes.

Leary (2004) further posits that most mental health and wellbeing theories are premised on the understanding that, an accurate view and awareness of one's subjective experience, for example, reality, is an indicator of one's ability to psychologically adjust. Given that mindfulness is based on awareness and attention of experiences as they occur, those who are of a mindful disposition or possess a mindfulness style may have a greater capacity to observe, acknowledge, and correct unpleasant emotional states or feelings which they are experiencing, thus reducing the emergence of mental health issues.

#### Mindfulness Background & Characteristics

The majority of psychological and neuroscientific studies into mindfulness adopt a definition put forward by Jon Kabat-Zinn, who was pivotal in translating Buddhist approaches of mind training into the secular context of health care programs and psychological interventions (e.g., Kabat-Zinn et al., 1985, 1992; Kabat-Zinn, 2011). Zinn describes mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (1994, p. 4).

Recent years have seen a burgeoning interest in mindfulness-based approaches, increasingly concentrating on the mechanisms through which mindfulness exerts positive influences, driven by growing evidence of their beneficial effects on physical and mental well-being, (Robins, Keng, Ekblad & Brantley, 2012; Coffey and Hartman, 2008; Crane et al.2010; Shapiro et al.2006; Williams et al. 2011).

The training of attention skills is thought to underpin emotional and cognitive flexibility, bringing about the ability to maintain non-judging awareness of one's own thoughts, feelings, and experiences in more general terms. This, in turn, will change the quality of one's behaviour and lead to positive health outcomes and well-being (Wallace and Shapiro, 2006; Chiesa and Malinowski, 2011; Malinowski, 2013). It is however, important to note, the two opposing views with regard to the nature of mindfulness. Those who view mindfulness as an innate human capacity which occurs at varying levels, in other words, a disposition or state that can develop over time (Kabat-Zinn 1994; Siegel 2010; Langer & Moloveanu 2000). Conversely, then, there are those who view mindfulness as the emotional processing related to a personality type or cognitive style of a particular person, in other words, facets and trait characteristics (Hirst 2003; McCrae 1992; Carroll 1993).

Research conducted by Sternberg (2000) elaborates on existing views on how mindfulness appears across the literature, explicitly explaining that the lack of consensus stems from the fact that mindfulness appears to coexist at the interface between personality and cognition (cited in Mason 2005). Therefore, treating mindfulness as both a dispositional state and a trait.

### The Mindfulness Approach Applied

Although mindfulness-based interventions have been in use for over 20 years, it has only been more recently that mindfulness has been examined as a psychological construct (Bishop et al., 2004). Mindfulness practice is grounded in attitudinal foundations, which include non-judgement, acceptance, trust, patience, non-striving, curiosity and kindness (Bishop et al., 2004: Kabat-Zinn 1990: Shapiro et al., 2006).

Attention within this framework includes focused, broad and sustained attention skills in switching attention from one stimulus to another. According to Bishop et al., (2004), these formations of attention, include conscious intention that extends from an intention to practice; the intentionality one brings to directing, sustaining or switching attention. Shapiro et al. (2006) further proposed that these elements, attitudes, attention and intention, are simultaneously interconnected and aspects of the process that "is" mindfulness (p. 375).

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This includes continuous, immediate awareness of physical sensations, perceptions, affective states, thoughts, and imagery (Grossman et al., 2004), or as a receptive attention to and awareness of present events and experience (Brown et al., 2007).

#### Mindfulness and Adolescents

Mindfulness practice has shown to specifically train attention skills, emotional regulation and fosters self-efficacy through greater school achievement and the transformative selfawareness of "in the moment" brain processes such as the stress response (McCulloch., 2013). Preliminary evidence also supports the contention that mindfulness is associated with high selfesteem and low social anxiety (Brown & Ryan, 2003).

Largely, current interventions and research have been undertaken in adult populations, although there is now increasing interest in applications with children and adolescents which presents numerous future research opportunities.

Research within adolescent populations is in its initial stages, although mindfulness shows great clinical promise for young people. One of the primary aims of the current study is to look at such interventions in DEIS, as well as, Non-DEIS schools, considering literature in disadvantaged regions is still quite negligible in Ireland. Deis schools, as identified by the department of education, have a primary aim in Delivering Equality of Opportunity in Schools (DEIS).

### Mindfulness Interventions

The predominant mindfulness-based approaches currently used throughout various clinical intervention settings include MBSR (Mindfulness-Based Stress Reduction) developed by Ludwig & Kabat-Zinn, (2008). MBCT or Mindfulness Based Cognitive Therapy, developed by Segal, Williams & Teasdale (2002), DBT (Dialectic Behaviour Therapy) developed by Linehan (1993), ACT (Acceptance and Commitment Therapy) developed by Hayes et al., (2004).

MBSR and MBCT are experiential learning programs that include weekly group sessions, regular home practice, and the core curriculum of formal mindfulness practices, (body scan, sitting, movement and walking meditations), and informal mindfulness practices where participants intentionally bring mindful awareness to activities of daily living, e.g., showering, eating, listening, studying.

MBSR and MBCT use regular mindfulness meditation practices to develop mindfulness skills, whereas DBT teaches mindfulness techniques described as "psychological and behavioural versions of meditation skills" (Linehan 1993, p. 114), with ACT taking a similar approach in teaching non meditative component skills of mindfulness (Baer and Krietemeyer 2006: Hayes and Shenk, 2004).

Throughout these approaches, the fundamental focus pertains to developing mindfulness, although teaching methods may vary. Merely having awareness or observing experience alone is not mindfulness; mindfulness also has the quality of non-judgmental curiosity, of accepting experience as it is (Siegel 2010). When one is mindful, one is paying attention to thoughts, emotions and sensations without reacting to them. The practice is simple but the effects are deceptively complex and sophisticated. "The more one trains to be mindful, the more one realizes the fleeting nature of things, and the easier things are to accept...After these experiences are accepted, and thoughts are seen as thoughts, instead of reality, then one has a choice in how to respond to them" (Gambrel & Keeling 2010 p. 414).

Although each clinical model utilizing mindfulness interventions uses slightly different terminology to describe the key components of mindfulness, it can be argued that the considerable conceptual overlap among the models supports an overarching conceptualization, (Dimidjian & Linehan, 2003). This efficacy of mindfulness-oriented interventions such as Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990) and Mindfulness-Based Cognitive Therapy (MBCT; Segal et al.2002; Teasdale et al.1995) has been grossly established (Grossman et al.2004; Hofmann et al.2010; Shigaki et al.2006).

It could be argued that the field has become saturated with qualitative reviews across Mindfulness Based Therapy (MBT). These reviews generally suggest that MBT is beneficial to reduce stress, anxiety, and depression. However, the vast majority of these reviews are qualitative in nature and do not quantify the size of the treatment effect. In contrast, few reviews apply meta-analytic methods to quantify the efficacy of this treatment, (Baer, 2003; Grossman, Niemann, Schmidt, & Walach, 2004; Ledesma & Kumano, 2008).

# **Objective of the study**

Consequently, this study will attempt to explore existing evidence and consider benefits to evaluate how Mindfulness-Based and Mental Health programs might empower adolescents in lower socioeconomic areas to overcome their perceived disadvantages.

Interestingly, the sample being used for this study are leaving cert students. It is fair to derive that the Leaving Cert is perceived as a stressful time for almost everyone. Aisling Curtin, Counselling Psychologist with the Psychological Society of Ireland (PSI) and founder of ACT Now Ireland, believes this cultivation of being more fully in the "here and now" really helps in times of great stress around examination periods for youths', such as the leaving certificate.

Existing research carried out in Ireland, by (Banks & Smyth, 2015) focused on individual variation in exam-related stress levels among students with very little attention given to the influence of school context on student stress. They found that young people were very concerned about how they would perform in exams and often became stressed at the thought that they would not achieve their goals.

Dominating factors such as the role the leaving certificate exam has in controlling entry to third-level education, elicited common trends throughout those taking the exam to feel that 'their whole life depends on it', (Banks & Smyth, 2015).

Exam periods are a key time that stress arises for most students. Attempting to combine years of hard work and study into a handful of two and three hour segments is a fruitless task and is made no easier by the pressure placed on students to succeed. Accordingly, stress is specifically linked to relationships strained by the demands of study, weaknesses in student support systems and coping skills when faced with academic demands and pressure (Collins et al., 2010).

The central conclusions to the current study suggest mindfulness based tools exhibit their effectiveness with school-aged adolescents (Kuyken., *et al.* 2013). Exposing mindfulness skills to disadvantaged children can be effective in reducing adverse reactions to stressors, improving psychological well-being, and perceived quality of life. The main concern hereto, is to examine the extent to which the effects of a condensed MBCT approach & Mental Health based stress reduction intervention may be attributable to increases in mindfulness skills and overall psychological well-being for adolescents.

# Hypotheses

The following hypotheses are considered for the current study;

*Hypothesis 1*; It is hypothesised that there will be a decrease recorded in adolescent's perceived stress, depression and anxiety levels' following participation in the mindfulness and mental health intervention.

*Hypothesis 2*; Participation in the mindfulness intervention will lead to an overall increase in mindfulness awareness, observing, accepting, and describing scores compared to that of the other experimental groups.

*Hypothesis 3:* Outcomes will differ in terms of Stress, Anxiety and Depression across both schools in time one and time two.

*Hypothesis 4:* Mindfulness outcomes will differ across both school types with regard to observing, accepting, describing and awareness scores.

A further aim within this study was to determine from participants how effective taking part in the Mindfulness and Mental Health Study was for them.

# **Method Section**

# Participants

The sample used for this study was a convenience sample of approximately 95 school going adolescents from 15 to 18 years of age. Participants were chosen from a school sample of lower socioeconomic status in the greater Dublin region as outlined by the Department of Education Ireland. 49 students from a Deis school and 46 students from a Non - Deis school took part. See *figure 1.1* below.

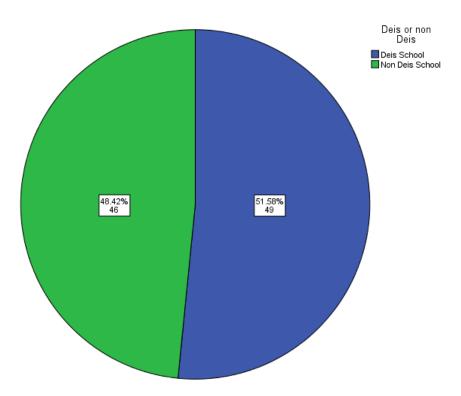


Figure 1.1 Participant population percentage for both schools.

# **Method Section**

# Participants:

Students in both schools were invited verbally and in written form to take part in this study. Selection of classes chosen was adhered to by the principal at each school. Three class groups from the leaving cert year in both schools were selected at random. See *figure 1.2* for illustration of how groups were divided throughout the study.

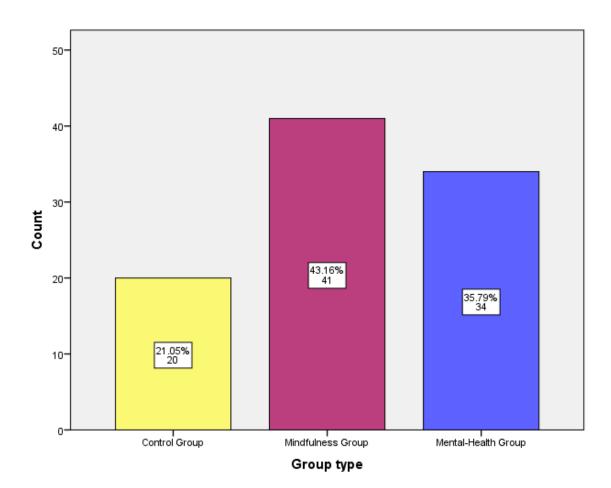


Figure 1.2 Participant population percentage across experimental groups.

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# **Method Section**

# **Participants**

No incentive was offered for participation. However, some participants may have viewed the mindfulness training that was available free of charge to be an incentive to take part.

Across both schools, participants included 46 Females and 49 Males. Within the Mindfulness groups, 41 participants took part (M = 1.48, SD = 0.86). Within the Mental Health groups, 34 participants took part (M = 1.61, SD = 0.49), and 20 participants took part in the Control group (M = 1.49, SD = 0.52). It should be noted that participation fluctuated from group to group over the 6-week period. See *figure 1.3* below:

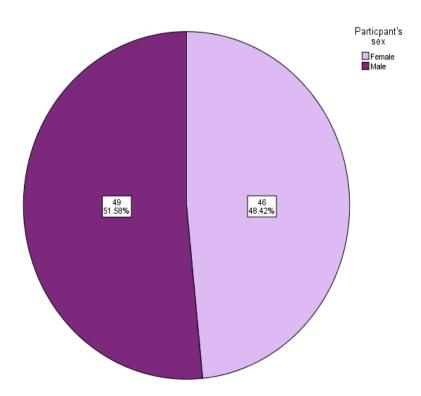


Figure 1.3 Percentage population of participant's sex.

Design

This study is comprised of a mixed methodology two tailed experimental design used to measure the differences between and within groups regarding pre and post measurements to the mindfulness and mental health interventions put in place.

A mixed method design as such may be defined as "the collection or analysis of both quantitative and qualitative data in a single study in which the data is collected concurrently or sequentially, given a priority, and involve the integration of the data at one or more stages in the process of research" (Creswell, Plano Clark, Guttmann & Hanson, 2003, p 212).

When both quantitative and qualitative methods are used, researchers can enrich their data in ways which a single form of data will not allow (Hanson et al 2007, Tashakkori & Teddlie, 1998). In a mixed method study, "data analysis and integration may occur by analysing the data separately, by transforming them or by connecting the analyses in some way" (Hanson et al 2007 p. 212).

In this case, a triangulated design was used, whereby the two sets of data were analysed separately and the researcher attempted to merge the data together in the analysis. It allowed as in this case, for results obtained from precise, instrument based measurements, "to be augmented by contextual, field based information" (Hanson et al 2007 p. 224).

In this study, quantitative data in the form of scores on three different measures was collected and analysed pre and post intervention for both intervention groups and the control group.

# Design

This experiment's dependent variables (DV) encompassed mindfulness awareness, accepting, describing, observing, perceived stress levels, social anxiety levels, and levels of depression. The independent variable's (IV's) included the type of group in which participants were allocated to and the school type they were in.

Between subject's independent variables consisted of the type of group participants were allocated to participate in, e.g., (Mindfulness, Control, Mental Health) and the type of school they were attending, being Deis or Non Deis schools.

The within subject's variable for this study related to the experimental groups threeweek participation in either of the interventions, and the control groups non participation.

Each class in both schools were randomly assigned to one of either three groups (control group, Mindfulness group, Mental Health group) via random selection techniques, (class name picked out of a hat supervised by the school principal).

# Materials used across three groups:

Participants were issued information sheets prior to participation involving a brief account of what the research being carried out entailed along with attached information on support services. Please see Appendix C for further details.

Both control and intervention groups were asked to fill out pre and post-intervention questionnaires which assessed a broad conceptualization of mindfulness by means of a combination of the Mindful Attention Awareness Scale (MAAS) Brown, K.W. & Ryan, R.M. (2003) and a sub scale from the Kentucky Inventory of Mindfulness Skills scale (KIMS) Baer, R.A., Smith et al (2004).

The KIMS 39-item multi-dimensional scale of interrelated skills related to what one does while practicing mindfulness, and how one does it. The "what" skills include observing (noticing or attending to) current experience, describing (noting or labelling observed experiences) with words, and participating (focusing full attention on current activity); the "how" skills include being non-judgmental (accepting, refraining from evaluation), being one-mind-ful (using undivided attention), and being effective (using skilful means) (Baer et al., 2009).

The Mindful Attention and Awareness scale (MAAS) (Brown & Ryan, 2003) measures mindfulness defined as a receptive awareness of being present. The measure consists of 15 questions describing experiences that reflect mindfulness awareness such as "I find myself preoccupied with the future or the past." Participants were asked to indicate to what extent they currently have each experience on a scale from 1 to 6 that included items such as "1 - Almost Always," "3 - Somewhat frequently," "5 - Very Infrequently," "6 - Almost Never." The internal consistency of this measure assessed by Cronbach's alpha is .87 (Brown & Ryan, 2003, p. 31). The outcome measure of this scale gives an overall score for mindful attention and awareness through calculating the average from the responses given.

Social Anxiety, Depression and Stress levels were measured using the depression anxiety stress scale (DASS) by Lovibond, S.H. & Lovibond, P.F. (1995). This theoretically grounded instrument specifically focuses on measuring multiple facets of psychological wellbeing. The questionnaire consists of a 21-item self-report designed to measure the three related negative emotional states of depression, anxiety and stress.

The Depression Anxiety Stress Scales 21 (DASS-21) is a shortened version form of Lovibond and Lovibond's (1995) 42-item self-report measure of depression, anxiety, and stress (DASS).

The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily agitated, over-reactive and impatient. Subjects were asked to use 4-point frequency scales to rate the extent to which they have experienced each state over the past week. Scores for Depression, Anxiety and Stress are calculated by summing the scores for the relevant items.

In addition, factor-analytic studies that have directly compared the two measures in clinical populations suggest that the DASS-21 is associated with a cleaner factor structure relative to the DASS-42 (Antony et al., 1998; Clara et al., 2001). The relative superiority of the DASS-21 compared with the full-length DASS may be attributable to the fact that 3 items have consistently been shown to reduce the discriminant validity of the measure.

Please see Appendix E: for a copy of these scales and scoring sheets.

#### Materials for the Mindfulness group:

Establishing materials for this group consisted of generating and delivering a condensed Mindfulness Based Cognitive therapy programme, once a week for three consecutive weeks. These particular exercises were extrapolated from Oxford University Psychologist Professor Mark Williams work, of whom is one of the premier researchers in the field of Mindfulness worldwide and is one of the co-founders of Mindfulness Based Cognitive Therapy (MBCT).

This material was delivered by an external professional speaker from Wellbeing Ireland, 'Dermot O'Hara'. On delivering this program, tools used in oral tradition with the practice, was a Tibetan singing bowl. This tradition dates back to the time of the historical Buddha Shakyamuni (560 – 480 B.C). Singing bowls are known to produce sounds which invoke a deep state of relaxation which naturally assists one in entering into meditation. They are a quintessential aid to mediation.

Please see Appendix G; for the details of the three-week intervention delivered to the Mindfulness group.

# Materials for the Mental-Health group:

Composing a three-week intervention for topics to be delivered once a week for three weeks to the mental health group, consisted of delegating instruction pertaining to specific Mental Health topics most relevant for this study to an external professional outreach speaker, 'Scott Ahern', from St. Patricks Irish mental health organisation. An outlined account of this three-week presentation which was dually devised can be found in the appendices. Additionally, equivalent class room settings were supplied in both schools, and a standardised BENQMX525 classroom projector was used to display presentation slides.

Please see Appendix H; for intervention presentation slides delivered for the mental health group.

# Procedure

At the beginning of the study, all participants were de-briefed before the research commenced. Participants were then asked to fill out three questionnaires. The control group were asked to fill out the same questionnaires at the same time. In addition, the intervention groups were invited to attend three, forty minute workshops, once a week over a three-week period and were given Instructions to follow at home for the duration of the three weeks.

The external speaker-led interventions introduced the participants to the concept of Mindfulness and Mental health discussions that would follow over the coming weeks. During the interventions, participants were given a week by week outline of the material and were introduced to some of the mindfulness and mental health exercises contained in the program.

Mindfulness exercises introduced, included mindful eating, seated mindful breathing and the body scan. Participants were also introduced to the concept of the use of mindfulness in daily life, becoming mindful while preparing a meal or brushing one's teeth for example.

#### Procedure

The body scan meditation implemented in this study encouraged the practice of learning to bring attention to particular parts of the body in sequence without judging what one is experiencing, simply just noticing the sensations within. When participants became aware that the mind wandered into thought, they were instructed to gently, without judgement, bring the mind back to focusing on whatever part of the body the focus was on. "This helps you to see, ever more clearly, when the mind has begun to wander away by itself, so that you gradually learn to 'taste' the difference between the thinking mind and the sensing mind" (William & Penman 2011, p. 58).

The breathing meditation involved bringing one's full focus onto the breath as it comes in and out, again noticing when the mind wanders and bringing it gently back onto focusing on the breath. "This stabilises the mind and helps you to see what unfolds when you focus your full awareness on just one thing at a time" (Williams & Penman 2011 p. 58).

The sounds and thought meditation introduced, aimed to broaden the focus from the breath onto sounds in the room which come and go. According to Williams and Penman this helps one to see thoughts as mental events that come and go just like sounds. It helps one to take a "decentred stance to thoughts and feelings", so that one learns to dis-identify from the thinking self. (Williams & Penman 2011 p. 59). At the end of the three-week Mindfulness intervention, participants were asked to fill out the questionnaire initially distributed at the beginning of the study. The control group were also asked out to fill out the same t questionnaire during that week.

# Procedure

Mental Health exercises introduced, included how to engage in conversations about ill-mental health, ways in which one can look after their own mental health, how support networks can help, differences between mental health and mental illness, how to identify sadness and depression on a spectrum and how anxiety and stress can effect one's wellbeing.

It is important to note, throughout working with both schools over the 6-week duration, participant's attendance in both intervention groups fluctuated and was not consistently reliable.

Furthermore, post intervention data collection commenced one week following the completion of the three-week program implemented in both schools for all groups. Participants and schools were largely thanked in accordance with complying to the research demands.

**Ethics** 

This body of research has been reviewed and approved by the psychological research ethics committee of Dublin Business School. The ethical guidelines in relation to confidentiality and informed consent were followed. Informed consent was obtained from all participants within this study for both the qualitative and quantitative components therein.

Furthermore, participants were informed that confidentiality would be upheld regarding information obtained, and that they could freely withdraw from the study at any time. 95 questionnaire respondents used their date of birth as an identifying code and this was used to identify participants throughout the analysis of the data. Results

The present study applied analysis of a mixed ANOVA, comparing the mean differences between and within groups that were split on independent variables. A mixed ANOVA measured dependent variables, (Anxiety, Mindfulness facets, Stress & Depression) over two time points.

The primary purpose of a mixed ANOVA was to understand if there is an interaction between these factors on the dependent variables. Normal distribution was checked as part of the preliminary analysis. Testing of normality was carried out using Sharipo Wilks interpretation across all findings.

Primary assumptions such as, Sphericity due to within subject's variables was checked configuring Greenhouse Geisser findings. Homogeneity was checked for variance across findings in checking the Levens Box of Equality being > .05, and Inter-correlations was checked in readings of Box's test of equality of covariance matrices across all results outlined being >.001.

# Quantitative Data

# Table 1.4 Descriptive Statistics Across All Findings:

Measurement	<u>Mental Health</u>	<u>Mindfulness</u>	Control		
Mindful Attention Awareness Scale M (SD)					
Pre Intervention	3.8 (1.02)	3.4 (0.9)	3.4 (0.7)		
Post Intervention	4.1 (1.1)	3.6 (1.07)	3.4 (0.5)		
DASS 21 Scale M (SD)					
Stress Scale M (SD)					
Pre Intervention	16.6 (10.6)	19.2 (9.8)	12.6 (6.8)		
Post Intervention	16.6 (10.3)	16.7 (11.8)	12.8 (8.6)		
Anxiety Scale M (SD)					
Pre Intervention	16.1 (10.3)	17.0 (12.2)	12.0 (8.5)		
Post Intervention	14.8 (9.1)	15.3 (11.2)	11.7 (8.7)		
Depression Scale M (SD)					
Pre Intervention	13.6 (16.4)	15.9 (12.7)	12. (11.2)		
Post Intervention	14.2 (9.8)	15.1 (18.1)	10.0 (10.3)		

# Quantitative Data

# Table 1.5 Descriptive Statistics Across All Findings;

Measurement	<u>Mental Health</u>	Mindfulness	<u>Control</u>
Kentucky Invento	ry Measurement Scal	e M(SD)	
<b>Observing Scale</b>			
Pre Intervention	37.7 (7.9)	37.4 (8.6)	37.0 (4.7)
Post Intervention	37.7 (7.8)	39.1 (12.1)	32.2 (6.4)
Describing Scale			
Pre Intervention	22.9 (3.8)	23.9 (3.3)	24.2 (4.1)
Post Intervention	23.3 (4.6)	25.1 (5.8)	22.6 (4.6)
Awareness Scale			
Pre Intervention	30.5 (3.9)	32.3 (4.2)	32.6 (5.3)
Post Intervention	31.3 (4.3)	33.8 (5.1)	31.6 (9.2)
Acceptance Scale	<b>)</b>		
Pre Intervention	25.6 (7.9)	26.4 (6.9)	24.7 (6.7)
Post Intervention	26.3 (8.6)	28.4 (5.9)	25.8 (7.2)

# Quantitative Data

Table 1.6. Sharipo-Wilks Test of Normality Across DASS 21 Scale Scores:

Measurements	Mental Health	Mindfulness	Control
Stress			
Pre Intervention	(p = .039)*	(p = .125)	(p = .369)
Post Intervention	(p = .074)	(p = .092)	(p = .624)
Anxiety			
Pre Intervention	(p = .083)	(p = .001)*	(p = .032)
Post Intervention	(p = .009)*	(p = .094)	(p = .304)
Depression			
Pre Intervention	(p > .001)*	(p = .010)*	(p = .027)*
Post Intervention	(p = .045)*	(p > .001)*	(p = .006)*

# Quantitative Data

Measurement	Mental Health	Mindfulness	Control
Mindfulness			
Pre Intervention	(p = .322)	(p = .171)	(p = .979)
Post Intervention	(p = .022)*	(p = .087)	(p = .592)
Acceptance			
Pre Intervention	(p = .085)	(p = .895)	(p = .984)
Post Intervention	(p > .001)*	(p = .886)	(p = .466)
Awareness			
Pre Intervention	(p = .452)	(p = .385)	(p = .310)
Post Intervention	(p = .072)	(p = .040)*	(p = .012)*
Describing			
Pre Intervention	(p = .008)*	(p = .103)	(p = .099)
Post Intervention	(p = .018)*	(p > .001)*	(p = .087)
Observing			
Pre Intervention	(p = .730)	(p = .472)	(p = .062)
Post Intervention	(p = .022)*	(p > .001)*	(p = .287)

 Table 1.7. Sharipo-Wilks Test of Normality Across All Mindfulness Scale Scores:

# Hypothesis 1

A mixed ANOVA found that there was no significant interaction effect between the experimental groups and control group in their scores across perceived stress (f (2,83) = .509, p = .603) with an observed power of  $(1-\beta) = .13$ . In relation to the main effects within subjects, there was no significant differences found (f (1,83) = .350, p = .556) with an observed power of  $(1-\beta) = .09$ . Interestingly, results corresponding to the between subject's effects for the mindfulness group's stress scores fell slightly outside the margins of significance (f (2,83) = 2.57, p = .083). See *figure 1.8* below.

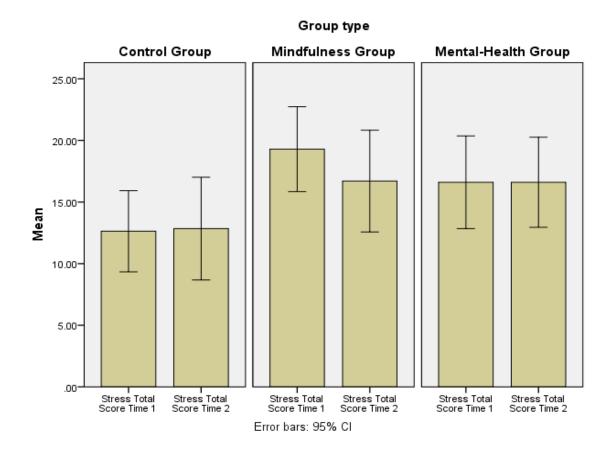


Figure 1.8; Division of Stress Scores among all experimental groups.

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# <u>Hypothesis 1</u>

A mixed ANOVA found that there was no significant interaction effect between the experimental groups and control group in their scores across levels of anxiety (f (2,84) = .098, p = .907) with an observed power of  $(1-\beta) = 6.5$ . In relation to the main effects within subjects, there was no significant differences found across levels of anxiety (f (1,84) = .667, p = .416) with an observed power of  $(1-\beta) = .12$ . Interestingly, results corresponding to the between subject's effects for the mindfulness and mental health group's level of anxiety were shown to trend towards significance (f (2,84) = 1.61, p = .205) with an observed power of  $(1-\beta) = .33$ . See *figure 1.9* below.

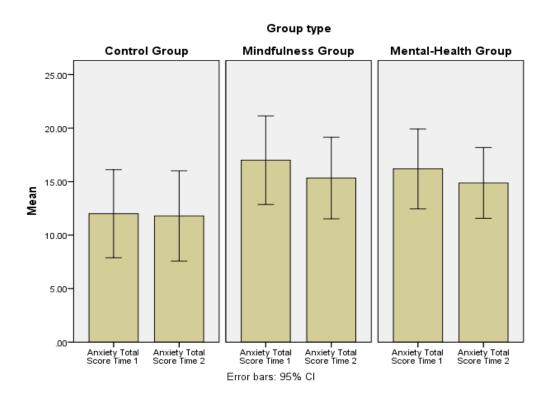
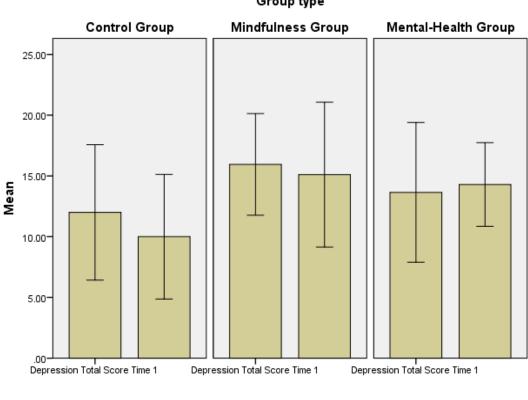


Figure 1.9; Breakdown of Anxiety Scores among all experimental groups.

#### <u>Hypothesis 1</u>

A mixed ANOVA found that there was no significant interaction effect between the experimental groups in their scores across levels of depression (f (2,87) = .154, p = .857) with an observed power of  $(1-\beta) = .7$ . In relation to the main effects within subject's results, there was no significant differences recorded across levels of depression (f (1,87) = .149, p = .701) with an observed power being  $(1-\beta) = .6$ . Interestingly, the mindfulness group obtained most noticeable decreased depression scores. See figure 2.0 below.





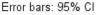


Figure 2.0; Demonstrating depression scores across experimental groups.

#### Hypothesis 2 (Mindfulness Awareness)

A mixed ANOVA found that there was no significant interaction effect between the intervention groups and control group in their scores measured on the mindfulness awareness scale, (f (2,82) = .560, p = .574) with an effect size of 14%. In relation to the main effects, there was no significant difference in the outcomes, (f (1,82) = 1.15, p = .287) with an observed power of 18%. However, there was a significant difference found for those who participated in the mental health group intervention and mindfulness awareness scores measured, (f (2,82) = 3.19, p = .046) with an observed power of 60%. See *figure 2.1* below.

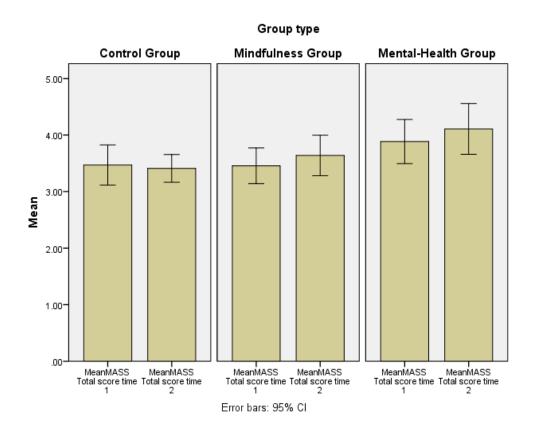
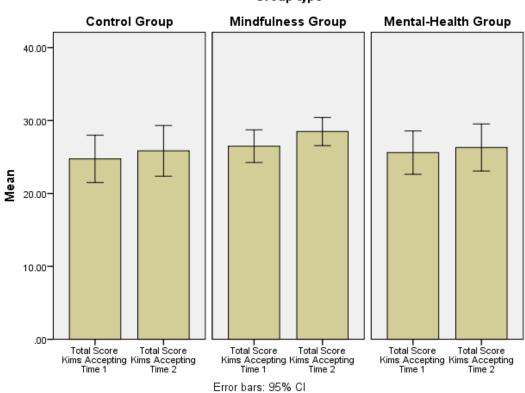


Figure 2.1; Representation of Mindfulness Awareness Scores across experimental groups.

#### Hypothesis 2 (Mindfulness Accepting)

A mixed ANOVA found that there was no significant interaction effect between the intervention groups and the control group in their scores measured on the Accepting scale, (f, (2,85) = .179, p = .837) with an observed power of  $(1-\beta) = .6$ . In relation to the main effects, there was no significant difference in the outcomes in taking part in the mindfulness group, mental health group or control group, (f (1,85) = 1.53, p = .220) with an observed power of  $(1-\beta) = .23$ . However, there was a noticeable trend to significance found in scores for those who participated in the mindfulness intervention group (f (2,85) = 1.19, p = .307) with an observed power of  $(1-\beta) = .25$ . See *Figure 2.2* below.



#### Group type

Figure 2.2; Bar Chart representation of Mindfulness Accepting scores across all groups.

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#### Hypothesis 2 (Mindfulness Describing)

A mixed ANOVA found that there was no significant interaction effect between subjects in the intervention groups and the control group in their scores measured on the Describing scale, (f (2,89) = .1.24, p = .293) with an observed power of 26%. In relation to the main effects, the null hypothesis was accepted relating to the outcomes across describing scores (f (1,89) = .002, p = .962). Interestingly, findings would suggest that the Mindfulness group did have marginal increases in describing scores after participation, although findings were not significant. See *figure 2.3* below.

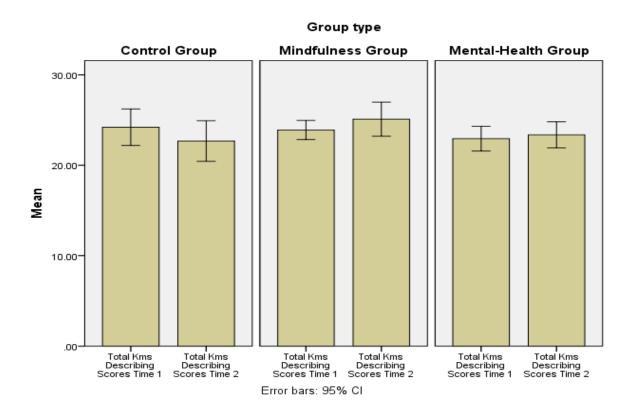


Figure 2.3; Simple Bar Chart representation of Mindfulness Describing scores.

#### Hypothesis 2 (Mindfulness Observing)

A mixed ANOVA found that there was an encouraging trend to significant interaction effects between subjects in the intervention groups compared to the control group in their scores measured on the observing scale, (f (2,88) = 2.42, p = .094) with an observed power of  $(1-\beta) = .47$ . Respectively meaning that there was a 47% chance of finding a significant result is there was one to be found. In relation to the main effects, there was no significant difference across the outcomes in all three groups, (f (1,88) = .024, p = .879). However, the between subject's effects also measured a slight tendency to significance (f (2,88) = 1.79, p = .1) with  $(1-\beta) = .36$ . See *figure 2.4* below.

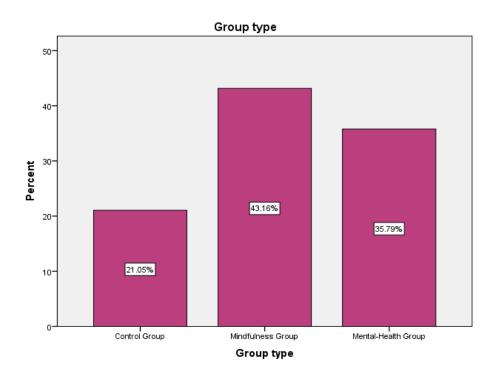
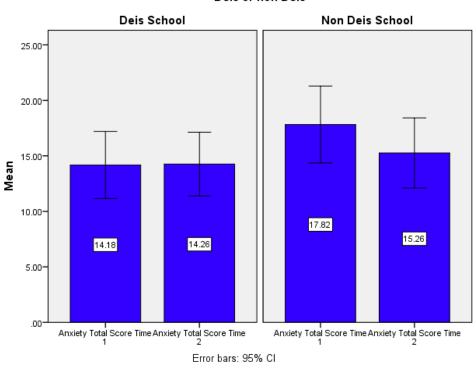


Figure 2.4; Graphical representation of Mindfulness Observing Scores across groups.

# Hypothesis 3:

A Mixed ANOVA found that the Null Hypothesis can be retained in relation to the interaction for within school's effect on Anxiety scores (f (1,85) = 1.56, p =.215) with an observed power of  $(1-\beta) = .24$ , relating to a 24% chance of finding a significant effect if there was one, leaving a 76% chance of a type two error occurring. In relation to the main effects, within both schools, there was no significant outcomes (f, (1,85) = .88, p = .349) with an observed power of  $(1-\beta) = .15$ . Interestingly, there was a trend towards significance found throughout the test of between subject's effects for the Non-Deis school, (f (1,85) = 2.69, p =.104) with observed power of  $(1-\beta) = .37$ . See *figure 2.5*.



Deis or non Deis

Figure 2.5; Graphical representation of differences in Anxiety scores across both schools.

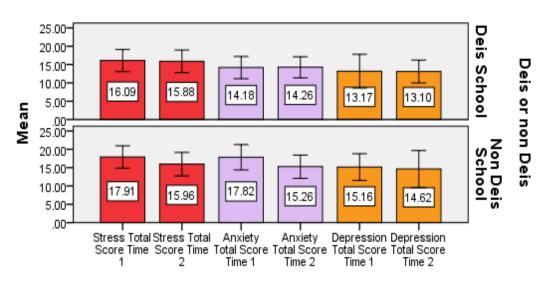
Student number; 1740886

#### <u>Hypothesis 3:</u>

A Mixed ANOVA found that the Null Hypothesis could be accepted in relation to the Interaction and main effect scores measured for depression within both schools, (f (1,88) = .100, p = .752) with an observed power of  $(1-\beta) = .06$ . Main effect = (f (1,88) = .086, p = .771).

A Mixed ANOVA was also used to measure Stress scores within and between both schools, finding the Null Hypothesis to be true for the interaction and main effects within subjects (f, (1,84) =.816, p = .369) with an observed power of  $(1-\beta) = .15$ . Main effects being (f (1,84) =.576, p = .450) with an observed power of  $(1-\beta) = .12$ , corresponding to a 12% chance of finding a significant effect if there was one. See *figure 2.6* below.

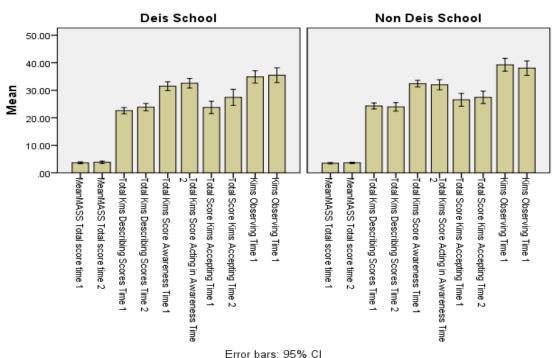
# Figure 2.6; Graphical representation across Stress, Anxiety & Depression scores across both schools.



#### Error bars: 95% Cl

#### Hypothesis 4: (Mindfulness Observing Scores Across Schools)

A Mixed ANOVA found that the Null Hypothesis was retained relating to the Interaction effect within schools in Mindfulness Observing scores (f (1,89) =1.54, p = .217) with an observed power of  $(1-\beta) = .23$ . This relates to a 23% chance of finding a significant interaction effect if there was one. In relation to the main effects, there was no significant effects found (f (1,89) = .262, p = .610). Interestingly, there was an encouraging trend towards significance between the type of school participants took part in throughout the study and their Mindfulness Observing scores (f (1,89) = 3.42, p = .068) with an observed power of (1- $\beta$ ) = .45. See *figure 2.7* below for illustration of trending significance found.



#### Deis or non Deis

Figure 2.7; Graphical representation of trending significance across schools.

#### Hypothesis 4: (Mindfulness Describing Scores)

A Mixed ANOVA found that the Null Hypothesis could be retained relating to the Interaction effect in Describing scores across both schools (F (1,90) = .001, p = .987) with an observed power of  $(1-\beta) = .05$ , concluding that there would be a 5% chance of finding a significant effect if there was one. Furthermore, there was no significant main effect found within these factors (f (1, 90) = .302, p = .584) with an observed power of  $(1-\beta) = .08$ .

Interestingly, there was a slight tendency towards accepting the alternative hypothesis relating to the between school's findings on the outcomes of mindfulness describing scores (f (1,90) = 2.34, p = .129) with an observed power of  $(1-\beta) = .33$ . See *Figure 2.8* below.

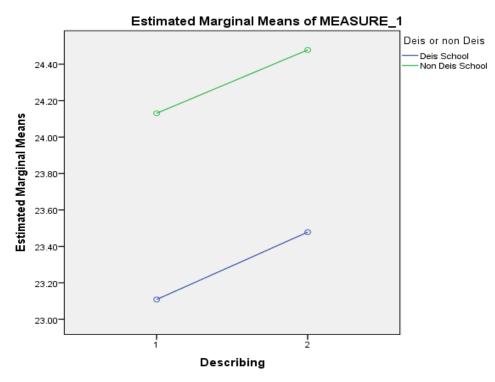


Figure 2.8; Graphical representation of trending significance across describing scores in both schools.

#### Hypothesis 4: (Mindfulness Awareness Scores)

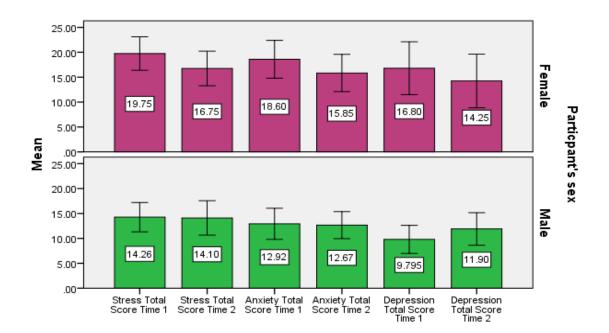
A Mixed ANOVA analysis was run to test the Interaction effect within the Mindfulness Awareness scores on the KIM scale and found the Null Hypothesis retained, (f (1,86) = .234, p = .630) (1- $\beta$ ) = .07, correlating to a 7% chance of finding a significant interaction effect if there was one. Accordingly, the main effect within schools found the Null Hypothesis to also be accepted (f (1,86) = .876, p = .352) (1- $\beta$ ) = .15, with a 15% chance of a significant effect to be found if there was one, leaving 85% chance of making a type two error.

#### <u>Hypothesis 4; (Accepting Scores)</u>

A Mixed ANOVA found that there was no significant interaction effect found within the type of school participants where located and their Mindfulness Accepting scores (F (1,86) = .845, p = .360) with an observed power of  $(1-\beta) = .15$ . Furthermore, there was no significant main effects measured within, (f (1,86) = 2.02, p = .159) with an observed power of  $(1-\beta) = .29$ , relating to a 29% chance of finding a significant effect if there was one, leading to a 71% chance of making a type two error.

#### Additional Findings:

With regard to further investigation across the data obtained within this study, additional findings relating to Gender being a predictor variable on outcomes between subjects across stress, anxiety and depression scores found that females had significantly higher rates of decreased outcomes among the dependant variables following participation across the interventions, for stress (f (1,84) = 4.17, p = .04) with an observed power of  $(1-\beta) = .52$ . For depression, (f (1,88) = 4.79, p=.03) with an observed power of  $(1-\beta) = .58$ . For Anxiety, (f (1,85) = 5.51, p = .02) with an observed power of  $(1-\beta) = .64$ . See figure 2.9 below.



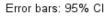


Figure 2.9; Female population significant Stress, Anxiety & Depression outcomes.

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#### **Qualitative Data**

### Theoretical Thematic Analysis

Theoretical Thematic analysis of the participant's experience in taking part in this study resulted in three key themes being identified. According to Braun and Clarke (2006)," the "Keynes" of a theme is not necessarily dependent on quantifiable measures – but in terms of whether it captures something important in relation to the overall research question" (Braun & Clarke (2006) p. 87).

The qualitative element in this study was undertaken with a view to elaborating on the quantitative data, which had a specific focus, namely an examination of the effect of a three-week Mindfulness and Mental Health intervention across leaving cert students in both Deis and Non Deis schools. The thematic analysis in this study is thus more thematical in approach than inductive in that it is driven by specific research questions and seeks to elaborate on specific elements of participant's experiences (Braun and Clarke (2006) p. 88). In this context the following themes were identified:

- Mindfulness being a resource to manage stress.
- > An increase in self and other body awareness.
- Increased knowledge on Mental Health Awareness.

# **Theoretical Thematic Analysis**

#### Mindfulness as an on-going resource to manage stress

Participants in both experimental groups reported that they felt more in control of their stress levels after taking part in the three-week intervention. Many participants noted that they felt taking part in this study was very effective in relation to feeling more aware of their thoughts and feelings.

"I thought this study was good, it helped me calm down when I am angry just by focusing on my breathing and taking deep breaths".

"I think this study is helpful and it helped me to understand what I am feeling and how to focus".

"It helped me become more aware of my emotions and how people around me can affect me".

# **Theoretical Thematic Analysis**

Furthermore, participants also explained the effectiveness in how taking part in this study had a relaxing effect on them and greatly decreased levels of stress.

"It was good, I enjoyed it, and I learned how to deal with my emotions and not get distracted".

"Very helpful in recognising my own mindfulness and how my breathing could help me relax and forget about worries".

"It was a good way to wind down and relax".

"I enjoyed taking part, it helped me de-stress at times".

"It made a difference with my breaths and would like to look into mindfulness more as it helps me forget negative thoughts going on in my mind".

# **Theoretical Thematic Analysis**

# Increasing Mental Health Awareness

Some participants also noted how taking part helped increase their awareness of Mental health;

"It gave me great ideas and insight into mental health and illness and gave me an insight into the work of a psychologist as I want to be one".

"It was interesting to learn more about mental health".

"It opened my mind as to how I feel and go about my life".

"This study was great fun and I learned a lot about mental health".

# **Discussion and Conclusion**

The aim of this research was to investigate and understand whether a three-week Mindfulness and Mental Health intervention would implement increased overall multi facet mindfulness outcomes and decrease levels of stress, anxiety and depression across Irish adolescents derived from two distinct socioeconomic schools. This section identifies areas for discussion based on the analysis in the current study. Moreover, an overview of the strengths and limitations will also be discussed and based on this research other areas for further investigation will be highlighted

As previously discussed, there is a burgeoning interest in the use of Mindfulness and Mental health based interventions used to treat wide a range of psychological problems emerging throughout adolescence. Evidently, merging evidence consistently points to the efficacy of Mindfulness & Mental health based approaches throughout clinical populations (Robins, Keng, Ekblad & Brantley 2012; Blashki, Ciechomski & Hassed 2005).

This study accomplished an important contribution to understanding how different facets of Mindfulness and Mental health criteria are effective variables on psychological wellbeing in an Irish adolescent sample. It also provides supplementary data on Mindfulness and Mental health approaches to reduce stress, anxiety & depression among leaving cert students.

Constructing a powerful case for the presentation of this research and in turn contributing to the growing literature suggesting that increases in Mindfulness skills are fundamental arbitrators of its successful Mental health outcomes.

Student number; 1740886

#### **Results**

Accordingly, differences between Mindfulness facets (awareness, observing, describing and accepting) and psychological well-being variables, such as, stress, depression and anxiety across three experimental groups were initially analysed.

Similar to previous studies, results found an encouraging trend to significance among the differences recorded across the experimental groups exposed to the Mindfulness and Mental health intervention compared to those not exposed.

Interestingly, both Mindfulness and Mental health intervention groups' overall mindfulness scores slightly increased descriptively and somewhat inferentially compared to that of the control group, showing little or no change across facets of mindfulness.

More specifically, participation in the Mindfulness intervention showed a noticeable decrease in stress levels following exposure to the intervention. Noticeable changes were also apparent across anxiety scores following participation in both interventions for the mindfulness and mental health groups, with no change measured across the control group.

This study further examined possible differences between the two schools' in light of previous research eluding to how adolescents from a lower socioeconomic status' perceived disadvantages may affect their outcomes and wellbeing (McColloch, 2013; Magnuson & Vo-truba-Drzal, 2009).

#### **Results**

Interestingly, there was little or no difference recorded in both schools' outcomes across the multi facet mindfulness scores, with minor emphasis eluding to slightly higher overall Mindfulness scores apparent in the Deis school and lower overall anxiety levels recorded in the Non-Deis School. Such findings would suggest that both schools are equally weighted in outcomes following participation in the Interventions regardless of economic status, standing in opposition to previous views mentioned.

Although findings, retrospectively, were non-significant following the three-week Mindfulness and Mental-health intervention, some findings presented encouraging significance, such as, significant outcomes in Mindfulness awareness scores for adolescents who participated in the mental health group throughout the study.

Refreshingly, additional findings throughout this paper examined possible differences pertaining to gender being the between groups variable, in relation to stress, anxiety and depression scores. Results conclusively found female's scores compared to those measured within the male population, significantly lower after participation in the study.

Furthermore, the mixed-methods component of this current study ultimately aimed to maximize the quantitative data obtained by contributing the subjective experiences of participants. Participants feedback contributed to a systematic review of their experiences. Through the process of thematic analysis, the following themes emerged; An increase in self and other body awareness; Increased knowledge on Mental Health Awareness; Mindfulness being a resource to manage stress.

#### **Results**

Themes such as, 'An increase in self and other body awareness' and 'Mindfulness being a resource to manage stress', was identified as the participants finding the exercises interesting whilst relaxing, after taking an open attitude towards the exercises, which is consistent with prior studies conducted to digress upon the definition of Mindfulness and eventually describing it as an open and non-judgemental awareness (Watson, 2008).

Moreover, a recent model of Mindfulness mechanisms introduced by Shapiro et al. (2006) describes this primary shift that occurs, allowing to see things from a completely different perspective.

In light of the emerged increase in Mental health awareness theme, these findings would suggest that the Mental health intervention put in place, highlighting the fundamental differences between understanding what it is to experience ill mental health and to have a mental illness contributed to reducing confusion around this spectrum and provided participants in this study a sense of hope about their own ability to recover and to live a meaningful life, despite psychological difficulties associated within adolescence, as previously mentioned in such studies (Martin, Carr, Burke, Carroll and Byrne, 2006).

#### Strengths Within the Study

There are a number of strengths within this study. Firstly, from an ethical standpoint this has been a respectable study with no participants harmed. In particular, the participants who participated in the Mindfulness and Mental health groups appeared to gain a level of psychological well-being from taking part, as well as those whom participated in the Mental Health discussions.

Secondly the length of the questionnaire and the time allocated for completion was not too long. This attempted to ensure participants did not lose interest and therefore allowing individuals to give full attention throughout the whole questionnaire.

Additionally, the materials and apparatus involved are detailed in the method section of this report and can be obtained free of charge. The simplicity of the study is also a strength and adds to its replicability.

#### Limitations Within the Study

Like other empirical research, this study had some limitations and problematic associations therein. Firstly, as self-reporting is subject to biases the utilisation of self-reported questionnaires does not always allow for accurate reporting of views of oneself (Dodd-McCue & Taraglia, 2010).

The duration of the interventions put in place did not comply with that of previous research on mindfulness and mental health interventions, such as (Robins, Keng, Ekblad & Brantley, 2012; Coffey and Hartman, 2008; Crane et al.2010; Shapiro et al.2006; Williams

et al. 2011) where they would recommend a minimum 8-week participation in such interventions, compared to the 3-week intervention put in place for this study. Which may have negatively skewed the results.

Furthermore, Sharipo Wilks test of normality proved to be violated in some cases throughout data analysis within this study. Specifically pertaining to Depression scores, this limitation may not arise if the population sample was higher compared to one used throughout this study.

#### Future Research & Conclusion

There are many developments that can be made to further this piece of research throughout the applied secondary school setting, some of which would entail developing the research strategy over a longitudinal framework. Consequently, this adaptation to the interventions would allow for probable, life-long, sustainable changes in coping skills to occur for participants and thus adding to the validity of the methodological outcomes measured.

By teaching mindfulness as a way of working with everyday stressors and experiences, participants across the full range of the normal distribution of well-being can potentially benefit, as previous research would suggest, (Huppert., FA. 2009).

Consequently, The National Study of Youth and Mental Health in Ireland carried out by Dooley and Fitzgerald (2012) identified the risk and protective factors involved throughout adolescence, and reported that the emergence of wellbeing and mental health difficulties was coupled with a significant decrease in self-esteem, optimism and positive coping strategies. They concluded that these factors should be monitored and supported by agencies working with adolescents.

#### Future Research & Conclusion

Responsively, complex interventions have been developed to combat such precarious developmental issues, such as, The Mindfulness in Schools Programme (MiSP) for youths throughout secondary schools, which include elements that are applicable to young people who are stressed and experiencing mental health difficulties.

As a universal intervention, this programme minimises inequalities in accessing the intervention and the acceptability, stigma and social comparison that often arise when targeting interventions at subgroups of young people within schools. The MiSP curriculum is designed to fit into the school curriculum and, following appropriate training, be taught by school teachers embedded in the schools, which reviews suggest is necessary for long-term sustainability (Weare., K, Nind., M, 2011).

With programmes such as these in place across several schools throughout Ireland, there is prospect for an emergence in lower levels of ill-mental health to be recoded throughout adolescence based on what the current findings of this study would suggest.

Caulfield & Dunford of Mindfulness matters, have worked with a few thousand teachers nationwide since 2011, who aim to bring mindfulness into their classrooms. This year, 1,500 teachers signed up for the company's online course. Meanwhile, the UK-based Mindfulness in Schools Project (MISP) has trained approximately 90 teachers in Ireland thus far.

Further research into the effects of Mindfulness and Mental health strategies for both staff and pupils in schools through randomised controlled trials is needed. In turn this approach will empirically test the findings and further promote these facets of learning to have substantial prevalence throughout The Department of Education in Ireland.

# Future Research & Conclusion

Additionally, empirical research towards large, well-designed studies with robust methodologies, adopting standardized formats for interventions, allowing for replication, will aid to develop a firm research evidence base that is vital for Mindfulness and Mental health based approaches when working with adolescents.

Adopting such applicable strategies, Mindfulness based interventions throughout the education paradigm within Ireland is currently being researched and reviewed by Dr. Catriona O'Toole of Maynooth University, leading a Cochrane systematic review into school-based mindfulness practices, and in parallel, exploring students and teachers experiences of mindfulness in different educational contexts. With such growth and strategic reviews as these, mainly focusing on facets of attention and concentration skills, it brings noticeable consequence of a paradigm shift within contemporary psychological research aiming to combat problematic aspects of adolescence, and implement positive copping strategies therein.

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### Appendix

Appendix A Dublin Business School Statutory Declaration Form
Appendix B for participants Parent/Guardian consent form for participants
Appendix C Participant information sheet
Appendix D
Appendix E
Appendix F MASS questionnaire & scoring sheet
Appendix G Three-week Mindfulness Intervention
Appendix H

13/14 Aungier Street Dublin 2, Ireland Dublin Telephone : (01) 417 7500 **Business** Facsimile : (01) 417 7543 E-mail: admissions@dbs.ie School Web site: www.dbs.ie Excellence through learning DUBLIN BUSINESS SCHOOL / DBS SCHOOL OF ARTS STATUTORY DECLARATION 48 Pineview Rise, tylestruy, Tallaght Dublis Michelle Byrne, of aged 18 years and upwards do solemnly and sincerely, declare that: I am not and have never been engaged in any conduct which could result in a conviction for any offence under the Child Pornography Act 1998. I understand that the offences under the Act comprise child trafficking, the taking of children for the purposes of sexual exploitation, allowing children to be used for the production of child pornography, the 1. dissemination of child pornography, and the possession of child pornography. I have never been convicted of any criminal offence for assault, battery, rape, murder, 2. false imprisonment or unlawful carnal knowledge. 3. I have also never been convicted of any criminal offence relating to the trafficking or possession of drugs for supply. 4. I have never been excluded from working with children. 5. I have read and agree to abide by the code of ethical conduct set out by the Psychological Society of Ireland currently in force at the date of making this Declaration and I agree to abide by this code as subsequently amended from time to time. 6. I have read and agree to abide by the guidelines as set out in the DBS Ethics Policy. I have been informed and understand that if I make a false declaration regarding any of these matters Dublin Business School will immediately terminate my research in the department and that any qualifications from the School will be negated. 7. I make this declaration for the satisfaction of Dublin Business School believing the same to be true and by virtue of the Statutory Declarations Act 1938. lasse Teh DECLARED before me by the said Muchelle Byrne Ignature Who is personally known to me (or who is identified to me by..... Who is personally known to me) at 1.5.1.0 In the City of Dublin this 22 nday of aliter 2095 0 on N Commissioner for Oaths / Practicing Solicitor nd Business College (Ireland) Ltd (t/a Dubtin Business School) Rep. d No 134010 Directors: G Muldowney, S Paton (UK), D Quill (also Secretary) (5 Peter's Row, intancy a Dublin 2

#### Appendix A: DBS Statutory Declaration Form

#### Appendix B:

#### Parent/Guardian Consent Form for Students Under 18 years

Dear Sir/Madame,

Your son/daughter have been invited to take part in research being carried in their school on mental-health and mindfulness interventions. I am interested in studying the effects students in  $6^{th}$  year may experience towards their overall psychological wellbeing, Mindfulness awareness and perceived stress levels following exposure to these topics being presented. This study will be conducted in conjunction with the Department of Psychology in Dublin Business School.

Mindfulness practice specifically trains attention skills, emotional regulation and fosters selfefficacy through greater school achievement and the transformative self-awareness of "in the moment" brain processes such as the stress response (McCulloch., 2013). There are no known risks associated with this study.

The purpose of this study is to investigate the effects of a mindfulness/ mental health based intervention for adolescents in educationally disadvantaged schools as outlined by the department of education in Ireland, one being a deis school, and one non deis school in the greater Dublin area.

Participants will be asked to fill out a questionnaire before taking part in either a class presenting information on mental-health awareness or mindfulness awareness. This will take place in their classroom with the teacher and researcher present. Students will receive one talk on either topic over three weeks and will then be asked to fill out the same questionnaire afterwards. All data collected will be confidentially obtained.

Your participation in this study in completely voluntary and each participant is free to withdraw their

participation at any time throughout the study. If you have any further questions regarding this research, please do not hesitate to contact myself *Michelle Byrne <u>Michellebyrne89@outlook.ie</u>* 

#### PLEASE TICK YOUR RESPONSE IN THE APPROPRIATE BOX

I have read and understood the attached Participant information leaflet	Yes 🗆	No
I do not wish my child to take part in this study	Yes 🗆	No

Parent/Guardian	Signature:	 Date:
	0	

#### Appendix C:

#### **Participation Information Sheet**

#### **Research title:**

Preliminary outcomes of mindfulness/ mental-health interventions in Adolescents in both Deis and non Deis Schools.

#### **Introduction:**

You are being invited to take part in research being carried in your school on mental-health and mindfulness interventions. This research will be exploring the effects students in 6<sup>th</sup> year may experience towards their overall psychological wellbeing, Mindfulness awareness and perceived stress levels following exposure to topics being presented by external speakers in each field. This study will be conducted in conjunction with the Department of Psychology in Dublin Business School and has been approved by the Psychology Research Ethics Committee in Dublin Business School. In this study, you will be asked to complete a questionnaire before and after participating in attending class discussions on mental health and mindfulness over a three-week period. The researcher and class teacher will be present at hand to answer any questions you might have regarding the research.

#### Time commitment:

The study typically takes 30-40 minutes (per session) across 3 sessions, and will take place in classes chosen by the school principal that best fit the students time table.

#### **Participants rights:**

You may decide to stop being a part of the research study at any time without explanation. You have the right to ask that any data you have supplied to that point be withdrawn/destroyed.

You have the right to omit or refuse to answer or respond to any question that is asked of you.

If you have any questions as a result of reading this information sheet, you should ask the researcher before the study begins.

#### **Benefits and risks:**

There are many benefits that come with taking part in this study, the concept surrounding Mindfulness is the art of bringing attention to our thoughts, feelings and actions as they arise from moment to moment. From a scientific point of view, the ability to focus our attention for a sustained period of time supports our emotional, mental, social and physical wellbeing. Research has proven that paying attention activates our pre frontal cortex, the area of the brain which is responsible for maintaining an optimal level of physical and emotional wellbeing. Studies show that students who participate in comprehensive and collaborative school-based mental health discussions have significantly less disciplinary issues, enjoy better mental health and, not surprisingly, perform better in school We hope that the results of this study will be used to form a Psychology undergraduate degree research project. We do not anticipate any risks. Some topics covering mental health discussions will be sensitive. Participation in this study involves completion of some standardised questionnaires which are routinely used as preliminary measures of outcomes following the exposure to the interventions delivered.

#### **Confidentiality/ Anonymity:**

The data collected from you will not contain any personal information about you except your Date of birth to match up pre and post findings of the possible effect the intervention will have. Information will be stored securely on password protected computers in the Department of Psychology in Dublin Business School. Only members of the research team named on form will have access to the data.

#### **Further information:**

Dr. John Hyland (research supervisor) will be glad to answer your questions about this study at any time. You may contact him at <u>john.hyland@dbs.ie</u> or at **01 4178758 Monday 2-4pm** and **5-7pm** 

If you want to find out about the final results of this study, you can contact the researcher Michelle Byrne directly at <u>michellebyrne89@outlook.ie</u>, up to one year after the research has been carried out.

If you feel that you may need extra support following participation in this study, please see below a list of support services that can offer help if you feel distressed in anyway.

#### **ISPCC**

The Irish Society for the Prevention of Cruelty to Children (ISPCC) is Ireland's oldest and most well-known children's charity. The ISPCC has a long, proud history of service delivery and advocacy on behalf of children. **Call 1800 66 66 66** 

#### YOURMENTALHEALTH.IE

YourMentalHealth.ie is a place to learn about mental health, and how to support yourself and the people you love. You can find support services near you, and learn about the #lit-tlethings that can make a big difference to how we all feel.

#### <u>Samaritans</u>

If there's something troubling you, then get in touch. We're here 24 hours a day, 365 days a year. If you need a response immediately, it's best to call us on the phone. This number is FREE to call.

Calling Samaritans is now free of charge from a landline or mobile. Call 116 123.

#### **Appendix D:**

#### Questionnaires and Scoring sheets used for study

#### Kentucky Inventory of Mindfulness Skills (KIMS)

Authors: Ruth A. Baer, Gregory T. Smith & Kristin B. Allen

The KIMS is a 39-item self-report inventory that is used for the assessment of mindfulness skills. Mindfulness is generally defined to include focusing one's attention in a nonjudgmental or accepting the experience occurring in the present moment (Baer et al., 2004). This measurement may be helpful to professionals who teach mindfulness by clarifying strengths and weaknesses in their client's development of different mindfulness skills.

The KIMS is used to assess 4 mindfulness skills: x Observing: mindfulness involves observing, noticing or attending to various stimuli including internal phenomena (cognitions, bodily sensations) and external phenomena (sounds, smells). Items: 1, 5, 9, 13, 17, 21, 25, 29, 30, 33, 37, 39.

x Describing: involves participant describing, labelling, or noting of observed phenomena by applying words in a nonjudgmental way. Items: 2, 6, 10, 14, 18, 22, 26, 34.

x Acting with awareness: being attentive and engaging fully in one's current activity. Includes the DBT skills of 'participating' and 'one-mindfully'. Items: 3, 7, 11, 15, 19, 23, 27, 31, 35, 38. x Accepting (or allowing) without judgment: to allow reality or what is there, to be as it is without judging, avoiding, changing, or escaping it. Items: 4, 8, 12, 16, 20, 24, 28, 32, 36.

**Scoring**: Items are rated on a 5 point Likert scale ranging from 1 (never or very rarely true) to 5 (almost always or always true). Items reflect either direct descriptions of the mindfulness skills, or they describe the absence of that skill and are reverse scored. High scores reflect more mindfulness.

**Reliability**: The instrument has good internal consistency. Alpha coefficients for Observe, Describe, Act with awareness and Accept without judgment were .91, .84, .76, and .87, respectively. Adequate to good test-retest reliability with correlations for the Observe, Describe, Act and Accept scores being .65, .81, .86, and .83, respectively.

**Validity**: Demonstrates good content validity. Has good concurrent validity, correlating with the Mindfulness Attention Awareness Scale (MAAS: Brown & Ryan, 2003). Correlates negatively with the AAQ, the TAS alexithymia scale, and the neuroticism scale of the NEO Five Factor Inventory (NEO-FFI: Costa & McCrae, 1992). The KIMS correlates positively with the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey & Palfai, 1995) a measure of emotional intelligence, and the Conscientiousness and Openness scale of the NEO-FFI.

#### **Reference**:

Baer, R. A., Smith, G. T. & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment*, *11(3)*, 191-206.

Kentucky Inventory of Mindfulness Skills

Ruth A. Baer, Ph.D. University of Kentucky

- Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your <u>own opinion</u> of what is <u>generally true</u> <u>for you</u>.

1

1	2	3	4	5
Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true

\_\_\_\_\_1. I notice changes in my body, such as whether my breathing slows down or speeds up.

\_\_\_\_\_2. I'm good at finding the words to describe my feelings.

\_\_\_\_\_3. When I do things, my mind wanders off and I'm easily distracted.

4. I criticize myself for having irrational or inappropriate emotions.

\_\_\_\_\_5. I pay attention to whether my muscles are tense or relaxed.

\_\_\_\_\_6. I can easily put my beliefs, opinions, and expectations into words.

\_\_\_\_\_7. When I'm doing something, I'm only focused on what I'm doing, nothing else.

8. I tend to evaluate whether my perceptions are right or wrong.

9. When I'm walking, I deliberately notice the sensations of my body moving.

\_\_\_\_\_10. I'm good at thinking of words to express my perceptions, such as how things taste, smell, or sound.

\_\_\_\_\_11. I drive on "automatic pilot" without paying attention to what I'm doing.

12. I tell myself that I shouldn't be feeling the way I'm feeling.

\_\_\_\_\_13. When I take a shower or bath, I stay alert to the sensations of water on my body.

14. It's hard for me to find the words to describe what I'm thinking.

15. When I'm reading, I focus all my attention on what I'm reading.

\_\_\_\_\_16. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.

\_\_\_\_\_17. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.

18. I have trouble thinking of the right words to express how I feel about things.

\_\_\_\_\_19. When I do things, I get totally wrapped up in them and don't think about anything else.

\_\_\_\_20. I make judgments about whether my thoughts are good or bad.

\_21. I pay attention to sensations, such as the wind in my hair or sun on my face.

1	2	3	4	5
Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true

\_\_\_\_\_22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.

\_\_\_\_\_23. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.

\_\_\_\_\_24. I tend to make judgments about how worthwhile or worthless my experi-

ences are.

\_\_\_\_\_25. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.

26. Even when I'm feeling terribly upset, I can find a way to put it into words.

\_\_\_\_\_27. When I'm doing chores, such as cleaning or laundry, I tend to daydream or think of other things.

\_\_\_\_28. I tell myself that I shouldn't be thinking the way I'm thinking.

\_\_\_\_\_29. I notice the smells and aromas of things.

\_\_\_\_\_30. I intentionally stay aware of my feelings.

\_\_\_\_\_31. I tend to do several things at once rather than focusing on one thing at a time.

\_\_\_\_\_32. I think some of my emotions are bad or inappropriate and I shouldn't feel

them. \_\_\_\_\_33. I notice visual elements in art or nature, such as colors, shapes, tex-

tures, or patterns of light and shadow.

\_\_\_\_\_34. My natural tendency is to put my experiences into words.

\_\_\_\_\_35. When I'm working on something, part of my mind is occupied with other topics, such as what I'll be doing later, or things I'd rather be doing.

\_\_\_\_\_36. I disapprove of myself when I have irrational ideas.

\_\_\_\_\_37. I pay attention to how my emotions affect my thoughts and behavior.

\_\_\_\_\_38. I get completely absorbed in what I'm doing, so that all my attention is focused on it.

\_\_\_\_\_39. I notice when my moods begin to change.

#### Appendix E: DASS 21 Questionnaire & Scoring Sheet

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

DASS	Scoring Template	85
		S A D A
		D S A S A
		D S S D S
		A D D S A
		A D

Apply template to both sides of sheet and sum scores for each scale. For short (21-item) version, multiply sum by 2.

#### How do I use the scoring key?

The scoring template was designed to be copied onto an overhead transparency (i.e., plastic film) so that it can be placed on top of the completed questionnaire.

The template indicates which items belong to which scale. Just add up the scores for all of the items in each scale.

If you are using the short DASS (21 items) there will only be 7 items per scale so you will only apply the scoring template to the single sheet; however, you will then need to multiple the score you obtain for each scale by 2 in order to make it comparable to the corresponding full DASS score (and the DASS norms and published studies)

#### **Appendix F:**

#### Mindful Attention Awareness Scale

#### **Description:**

The MAAS is a 15-item scale designed to assess a core characteristic of dispositional mindfulness, namely, open or receptive awareness of and attention to what is taking place in the present. The scale shows strong psychometric properties and has been validated with college, community, and cancer patient samples. Correlational, quasi-experimental, and laboratory studies have shown that the MAAS taps a unique quality of consciousness that is related to, and predictive of, a variety of self-regulation and well-being constructs. The measure takes 10 minutes or less to complete.

#### **Day-to-Day Experiences**

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4		5			6	
Almost	Very	Somewhat	Somewha	at	Ver	У	А	lmost	ţ
Always	Frequently	Frequently In	frequently	Infrec	uentl	У	Neve	r	
	experiencing some f it until some t	ne emotion and no ime later.	ot be	1	2	3	4	5	6
	pill things becar r thinking of so	use of carelessness mething else.	s, not payin	ng 1	2	3	4	5	6
I find it diff the present.	•	used on what's ha	ppening in	1	2	3	4	5	6
	1 0	et where I'm going prience along the v	· ·	y- 1	2	3	4	5	6
	0	s of physical tension ab my attention.	on or dis-	1	2	3	4	5	6
0 1	erson's name alı ne first time.	nost as soon as I'v	ve been	1	2	3	4	5	6

It seems I am "running on automatic," without much awareness of what I'm doing.	1	2	3	4	5	6
I rush through activities without being really attentive to them.	1	2	3	4	5	6
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1	2	3	4	5	6
I do jobs or tasks automatically, without being aware of	1	2	3	4	5	6
what I'm doing. I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5	6
I drive places on "automatic pilot" and then wonder why I went there.	1	2	3	4	5	6
I find myself preoccupied with the future or the past.	1	2	3	4	5	6
I find myself doing things without paying attention.	1	2	3	4	5	6
I snack without being aware that I'm eating.	1	2	3	4	5	6

#### Scoring information:

To score the scale, simply compute a mean of the 15 items. Higher scores reflect higher levels of dispositional mindfulness.

#### Appendix G:

#### **Three Week Mindfulness Intervention**

#### Research Team: Michelle Byrne. Dermot O'Hara

#### Week One:

- Introduction discussion with students, what is Mindfulness? Cover the concept of training your attention, not to wonder off, stay in the present moment, and what are its benefits to everyday life. (10 – 15 mins)
- A mindful mouthful mindfully eat a raisin (10 mins)
- Discussion of the experience with students after the exercise (5 mins)
- A seated body scan (10 15 mins)
- Or a simple exercise standing up, having students focusing on their breathing shifting attention to the lower half of their body, exploring sensations.
- Home practise encourage students to bring awareness to routine activities, choose one routine activity that you do every day and resolve that this week you will bring to it, as best you can, a fresh quality of deliberate and gentle moment- to moment awareness, just as you did with the raisin. Stay with the same activity each day for the whole week.

#### **Three Week Mindfulness Intervention**

#### Week Two:

- Another Way of Knowing. Two ways of knowing, the hidden power of thoughts and feelings: (1) Thinking about, getting the students to practice taking a minuet to or two to think about their feet without looking at them. What thoughts arise when you bring your feet to mind? There may be thoughts of liking or disliking or wanting them to be different, Let the thinking unfold naturally. (2) Tuning in Directly, bring you attention right into your feet without looking at them allow awareness to sink into and fill your feet from inside out, from the bones right to the skin itself, feeling the sensations in the soles of the feet, the sense of touch, pressure, contact. (10 mins approx.)
- **Rationale:** If a child is feeling upset, shifting attention to the lower half of the body helps their sympathetic nervous system calm down emotionally (Claire Kelly, 2014)
- The walking down a street exercise: "Settle in a comfortable position, when you are ready, take a minuet to imagine that you are walking along a familiar street... You see someone you know quite well on the other side of the street... You smile and wave... The person makes no response... just doesn't seem to notice you... walks past without any sign of recognizing your existence. What thoughts and feelings went through your mind? (10 mins approx.)
- Rationale: our emotional reactions reflect the interpretations we give to situations rather than the situations themselves, our interpretation of events reflects what we bring to them just as much as the reality of the events themselves, Thoughts are not facts- they are mental events!
- Briefly discuss the home practise from week previous.
- Home practice: Pleasant experience calendar: Each day aim to be aware of one pleasant experience as it is happening. The experience can be quite ordinary, something as simple as hearing a bird sing or noticing the smile on the face of a child, the important thing Is, is that it has a pleasant feel to it. Consciously choose what you pay attention to, by looking out for pleasant experiences, consciously

choosing how you pay attention by focusing on the separate aspects of each pleasant experience- any thoughts that are going through your mind, feelings around the experience and the sensation in your body.

#### **Three Week Mindfulness Intervention**

#### Week Three: Final week:

- **Discussion: Coming home to the present** (gathering the scattered mind) exploring how, wherever we are, whatever we are doing, we can learn to disengage from unhelpful and unintended time travel. By using the breath as an ever present anchor to return to the here and now, through mindfulness awareness of the body in movement, with a mini mediation the 3 minuet breathing space.
- Practise 3 minuet breathing space.
- Discussing the home practise experience from the week previous. (5 mins +)
- **Combined stretch and breath meditation exercise**, involves a few minutes of guided mindful stretching followed immediately by a sitting meditation (10- 15 mins)
- **Group discussion**: What did you do when you noticed that your mind had wondered? How kind or unkind were you to yourself when you had noticed the mind wandering again and again? How did you respond to any discomfort? (10mins)
- Rationale: The aim of this practise is not to prevent your mind from wandering but to use the times when you notice that the mind had wandered to develop your skills of: (1) Recognising that this has happened without giving yourself a hard time. (2) Pausing long enough to know where your mind is in that moment. (3) Letting go of what was on your mind. (4) Gently and kindly bringing your attention back to the breath.
- Ending on a 3 minuet breathing space, followed by a feedback hand out for students and further information on where to further engage in mindfulness practise and information on how to learn more.

Appendix H:

#### Mental Health Three Week Intervention

Slide One:

Week One



4

# Mental Health & Stigma



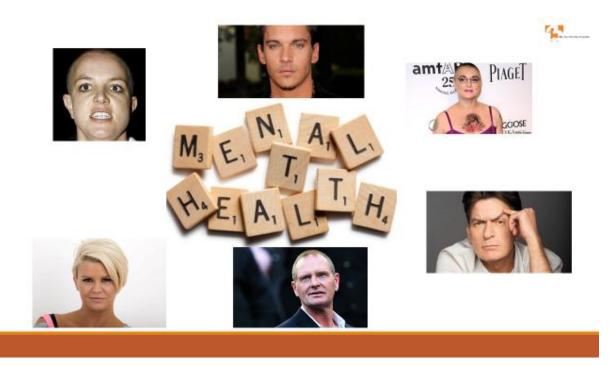
Slide Two:



Slide Three:



Slide Four:



#### Slide Five:





Slide Six:

4

## History of mental health in Ireland

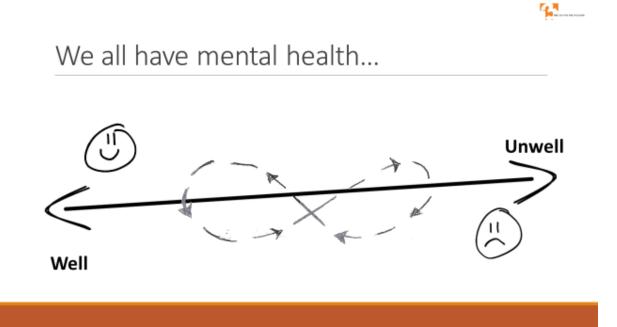


Slide Seven:

The second second

# Mental Health vs Mental Illness

Slide Eight:





4

### Start the conversation

Talk, but listen too: Simply being there will mean a lot

Take your lead from the person. Avoid the clichés

Keep in touch

Don't just talk about mental health



Slide Ten:

### Mental Health vs Physical Health



#### Slide Eleven:





Slide Twelve:



## Any Questions?

Scott Ahearn Mental Health Coordinator Scott@3Ts.ie





**Mental Health Three Week Intervention** 

Week Two



# **Anxiety & Depression**



#### Slide Two:

Slide One:



#### Slide Three:





#### Slide Four:

We all have

Whats the different between anxiety we can control and anxiety we can't.

Anxiety.



#### Anxiety can show up for:

- First date
- Preparing for an exam
- Giving a speech

#### Anxiety shows itself by:

- Nervousness
- Sweating
- Trembling

#### Result:

- · Does not significantly interfere
- Does not prevent you from achieving their goals.

#### Slide Five:

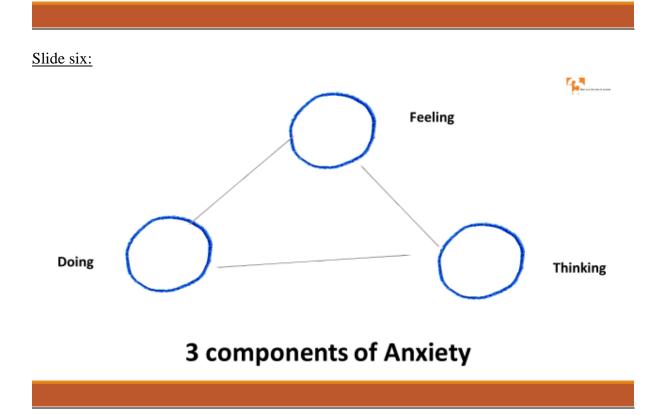


### How might Anxiety present itself

- Irritability / tiredness
- Decline in grades
- Withdrawal from peer group
- Poor coping with everyday stress
- Reassurance is required frequently
- Angry outbursts.

Most prevalent mental health problem that effects teenagers.

Anxiety may result from Parent reaction, modelling or from a stressful or traumatic life event.





### How Depression presents itself

#### IN TEENAGERS

- Decreased self esteem and feelings of self worth
- Mild irritability
- Negative perceptions of student's past and present
- Peer rejection
- Boredom
- Substance abuse

#### Slide Eight:





#### Talk to:

- Parent or guardian
- Teacher or guidance counsellor

WHAT IT LOOKS LIKE IN SCHOOL

Defiance with authority figures

Self critical comments

Pessimistic comments

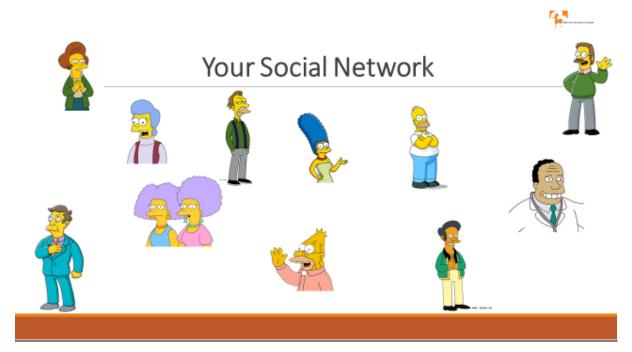
Acting out of character

Isolation

Sulking

- ° GP
- Therapist
- •Helpline:
- Childline 1800 666 666 Teenline 1800 833 634

#### Slide Nine:



Slide Ten:



## Any Questions?

Scott Ahearn Mental Health Coordinator Scott@3Ts.ie



I has a question...



#### **Mental Health Three Week Intervention**

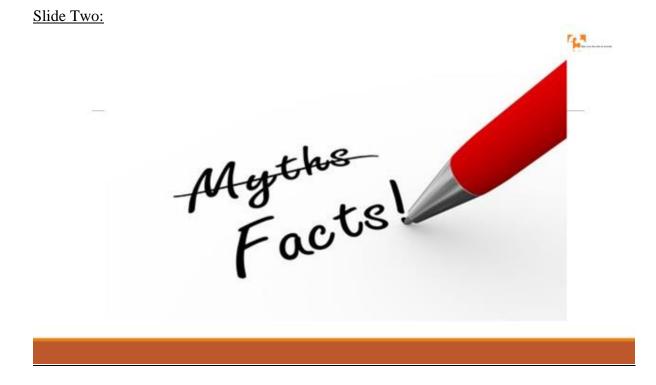
Week Three

Slide one:



# Suicide & Self-Harm





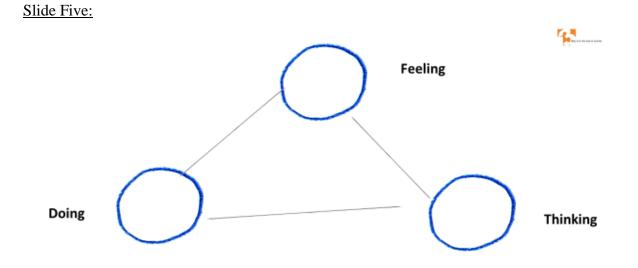
Slide Three:

### The second second

## 3Ts 3 Steps

- 1. Know the signs
- 2. Know the words
- 3. Know your supports





### 3 components of mental health problems



Slide Seven:



Slide Eight:



### Any Questions?

Scott Ahearn Mental Health Coordinator Scott@3Ts.ie



I has a question...

