Evaluating differences in attitudes to mental illness, self-efficacy and stress, post transition-year intervention programme

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Abstract

The purpose of this study was to assess the effectiveness of school-based intervention programmes on attitudes to mental health, self-efficacy and stress in adolescents. Sixty, 15-17 year olds, who completed the Positive Mental Health intervention programme, were administered three tests; perceived stress scale, self-efficacy scale and a pop quiz on mental health, both pre- and post-intervention. This is a repeated measures design with the Positive Mental Health (PMH) Transition Year Programme as the intervention. Results were significant for self-efficacy which showed increased scores of post-intervention. While there was a reduction in mean scores for stress, they were not significant. No difference was found in tested knowledge of mental illness. The study showed that the intervention programme is effective in increasing self-efficacy.
Chapter One

“Concepts of mental health include subjective wellbeing, perceived self-efficacy, autonomy, competence, intergenerational dependence and recognition of the ability to realize one’s intellectual and emotional potential”.

WHO, p.2, 2001

1. Introduction

1.1 Mental Health and Adolescents

Mental health is a major concern for young people in Ireland and addressing this issue with early and appropriate help can make a huge difference to their lives and that of their families. As part of a major longitudinal study (ESRI, 2013) children aged 9, expressed a clear picture of how they wished their lives to be when they grew up: When asked to list their main wishes and fears for the future, four main themes emerged; health, relationships, financial security and disasters. For the first three to be realised, it is vital that young peoples’ mental and emotional wellbeing is maintained throughout their development towards adulthood. Adolescence is 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. 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 assessment 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, and 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-health, (WHO, 2012). Since the range of risks to mental health is wide-ranging, responses to them need to be multi-faceted but should include developing a strategy to nurture core individual attributes such as self-esteem and self-efficacy in the formative stages of life. There is growing evidence that early intervention can ameliorate distress in young people (McGregor, Purcell, 2009), and fostering self-efficacy in today’s youth can act as a protective influence against developing mental illness. This is supported through research which indicates the potential role of self-efficacy in mediating depression (Mukhtar and Anuar Hashim, 2010). This study set out to look at individual internal attributes, such as the level of stress amongst secondary school students and to evaluate whether an intervention would help to build self-efficacy to enhance coping abilities in dealing with stressful events - thus protecting their mental health. The benefits of psychological well-being are comprehensive and linked to “better learning, social relationships and academic performance, so the enhancement of well-being is likely to improve a range of outcomes in the school context” (Psychcentral¹, 2013). It is also proposed that increased knowledge of issues around mental health within their immediate domains will result in improved attitudes to mental illness and a willingness to seek help (Ajzen & Fishbein, 1980).

A multitude of both internal and external factors can affect young people’s mental health. Adolescence is a period of emotional transition, marked by changes in the way individuals view themselves and in their capacity to function independently. The saying ‘no longer a child-not yet an adult’ summarises the transitional character of adolescence. It is a stage in which the youth has already broken with the happy age of childhood, but is not yet identified as an adult. Adolescence is marked by psychological stressors that have caused it to be defined as ‘an age of crisis and transition’. Significant physiological changes also occur around this time, leading to increased body

¹ psychcentral.com/news/2013/06/21/mindfulness-training-helps-school-kids-relieve-stress/56316.html
image scrutiny and higher levels of self-criticism (Al Sabbah et al 2009). These years are also synonymous with an escalation in risk-taking and problematic behaviours (Hasida & Keren, 2007); when the parent-child relationship can become more fraught and a sense of alienation may appear with the conviction that adult does not understand the adolescent.

External realities also begin to encroach upon the youths’ consciousness around this time: There have been enormous and rapid changes in Ireland’s economy, culture and value systems over the past decade (Nolan, Maître, Whelan & Layte 2006). These rapid changes have had significant consequences for young people. The deepening economic gloom and rising unemployment figures, which has exemplified Ireland since 2009, has had major consequences for many families’ standard of living, this, coupled with so much pessimistic media reporting may have an effect on their mental health (Szabo & Hopkinson, 2007). The make-up of Irish families has also undergone significant changes over the last few decades. There has been a dramatic increase in lone parent families with almost 1 in 5 children (18.3%) living in a one-parent family (EU-SILC, 2010). It has been established that those living in lone parent households continue to experience the highest rates of deprivation with almost 69% of individuals from these households experiencing one or more forms of deprivation (EU-SILC, 2010). This adds to the stress experienced by teenagers. There is a large body of empirical evidence which suggests that divorce increases the risk of adjustment problems in children and adolescents who demonstrate multiple symptoms of stress during the initial and early phases of the divorce process. Children from divorced families are significantly more likely to have emotional, social, and academic problems than children from married families (Kelly, 2000). Likewise, many of the support systems that previous generations have relied upon are diminishing and the increased pressures on parents may leave many young people feeling isolated and without the support to cope with any difficulties they may be facing.
1.2 Mental health promotion and stigma

While it is widely recognised that there is a need to take all steps possible to promote a culture of health and wellness amongst our youth, 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 more friendly, 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). 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) stresses the importance of mental health education as an early form of intervention against stigmatization. The Positive Mental Health (PMH) Intervention Programme, which this study has chosen to evaluate, 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 mental illness, 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). There is evidence from population surveys that stigmatizing attitudes towards people with mental health problems are highly prevalent (Crisp, Gedler, Rix, Meltzer, & Rowlands,
2000). A review of the evidence of the way the media portrays mental health service-users found that media representations emphasized “violence, dangerousness, and criminality” (Cutliffe & Hannigan, 2001 as cited in Essler, Arthur & Stickley, 2006). Understanding the causes of stigmatizing attitudes and effective methods of reducing them has wide ranging potential for improving the lives of people with mental illness.

1.3 Stress

Stress is defined as ‘a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioural changes that are directed towards altering the stressful event or accommodating to its effects’ (Baum, Fisher & Solomon, 1990). Stress is an individual response to a stressor that requires adjustment. The level of stress experienced is related to the individual’s interpretation of the situation and ability to deal with the stressor, rather than with the actual stressor itself. School years are, in and of themselves, a stressful period for youths. According to Rosenberg (Rosenberg 1985) students (aged 12-14) become more negative about school and themselves after they move to Junior High. A study by APA\textsuperscript{2} (2014) reports that school is the most commonly mentioned source of stress for 83% of teens surveyed. The survey found 10\% of teens report receiving lower grades than they are capable of due to stress and 20\% admitted to neglecting their responsibilities at school due to stress. Teens also responded that they lie awake at night (35\%), overeat or eat unhealthy foods (26\%) and have skipped exercise (28\%) due to feeling stress (APA, 2010).

There is a significant relationship between adolescents’ stress, mental health and their psychological well-being (Compas 1987). Life events such as changes in family environment, parental problems (such as addiction or separation) or demands at school, can also affect their well-being. Some children adapt successfully whereas others may experience problems with adjusting. The Zavos (2012) study, built on previous work by Brown (1978), showed that stressful life events predict

\textsuperscript{2} Stress in America™: Are Teens Adopting Adults’ Stress Habits?
increases in internalizing symptoms, demonstrating that such events are also important in explaining change in cognitions associated with anxiety and depression. Furthermore, Moeini, Babak et al. (2008) revealed that greater stress was associated with lower general self-efficacy and lower mental health status. A more recent investigation (Duckworth, 2013) suggests that stressful life events can impair self-control in adolescents and that this relation is mediated by increased psychological distress. Findings also reveal that adolescents who experienced stressful events showed less maturation (e.g. lower decreases in fear) or even the reverse of maturation (e.g. increases in frustration) of their temperament (Laceulle, et al 2012). Research suggests that well-adjusted adolescents had higher self-esteem and more resilience to the negative effects of stressful events than vulnerable adolescents (Dumont and Provost 1999). As well as stress being a consequence, it can also contribute to poor academic performance as well as lowering self-esteem (Kroger, 1980).

1.4 Stress and health outcomes

Psychobiological studies provide growing evidence how chronic levels of stress are detrimental to health through the neuro-endocrine (Storch, Gaab, Küttel, Stüssi & Fend, 2007), cardiovascular and immune systems (Glaser et al, 1999; Cacioppo et al 1998), influencing hormone release, cholesterol levels, blood pressure and inflammation. The physical symptoms associated with psychological and physical stress include; changes in heart rate, blood pressure and various hormonal responses. In addition to physical symptoms, stressful situations produce psychological, cognitive, behavioural, and social reactions. The normal biological responses to psychosocial stress involve the release of hormones of the hypothalamus–pituitary–adrenal (HPA) axis. Through the activation of the HPA axis, the body maintains homeostasis during and after stress (Sapolsky, Romero, & Munck, 2000). However, ongoing elevated release of HPA axis hormones, such as cortisol, has been shown to have detrimental effects on physical and emotional well-being (McEwen, 1999; Seeman, McEwen, Rowe, & Singer, 2001). Many demonstrative symptoms that occur regularly in the student population, such as headaches, tiredness, depression, anxiety and the inability to cope, can be attributed to or
exacerbated by stress (Pace & Stern, 1958). Irish students reported that they regularly have difficulty sleeping (26%), frequently suffer with headaches (19%) and often catch colds (18%). All these symptoms will impact the learning ability of students and their overall quality of life (Harmon, D., & Foubert O., 2010). Other negative physical effects of stress include immune system suppression, which can increase susceptibility to viral infections (Glaser et al, 1999) and psychological conditions such as anxiety and depression (Quick, Horn, Quick, 1987).

1.5 Stress and coping

Thankfully, the majority of young people actively cope with the inevitable crises that naturally occur as part of their development and seem to handle their problems in constructive ways. A National longitudinal poll\(^3\) (Headsup.ie, 2010), revealed that of 1,400 students surveyed on stress levels and coping, 40% felt they could cope well with their problems and one in ten students who admitted to serious problems also responded that they did not seek professional help. Stress in America survey (APA, 2010, p13) have found that teens stress levels and behaviors are closely linked and that “many teenagers, particularly girls are mirroring adults’ high-stress lives and potentially setting themselves up for a future of chronic stress and chronic illness”. The same report recommends that there is an urgent need to support teens with effective stress management techniques to help them identify and prevent long term consequences of stress. It has also true that young people sometimes rely on passive or negative behaviors in their attempts to deal with problems (Garfinkel, et al., 1989). Avoidant coping strategies include denying that a distressing event ever occurred, or that it has had any personal impact (Dooley & Fitzgerald, 2012). Sometimes this is accompanied by drug and alcohol misuse or other forms of risky behaviour (SAMHSA\(^4\)). There is a persistent relationship between low levels of mental well-being and neglect of self, neglect of others and a range of self-harming

\(^3\) Mater Child and Adolescent Mental Health Service: Stress and coping skills of secondary school students http://www.headsup.ie/tag/mater-child-and-adolescent-mental-health-service/

\(^4\) Substance Abuse and Mental Health Services Administration (SAMHSA). Results from the 2002 National Survey on Drug Use and Health: National Findings.
behaviours, including self-medication e.g. through alcohol, high fat and sugar consumption (Feinstein and Bynner, 2004). Many teens, especially teen girls, are now mirroring adults’ high-stress lives (APA, 2014) and potentially setting themselves up for a future of chronic stress and chronic illness (Schraedley, Gotlib, Hayward, 1999). Teens’ behaviours and stress are closely linked: Stress appears to affect teen girls’ relationship with food more than boys: Teen girls report appetite and dietary changes due to stress more frequently than boys (APA, 2010). These early eating habits could have a detrimental knock-on effect for girls as they mature into adulthood. While underlying psychological disorders such as depression and low self-esteem may lead to obesity, the ‘state of obesity’ may in turn trigger the same illnesses: The food-stress relationship becomes a cyclical one; episodes of binge eating contribute to weight gain and obesity, which in turn affect mood negatively.

Conversely, positive mental health influences outcomes across a wide range of domains. At an individual level good mental health confers considerable protection which includes; healthier lifestyles, better physical health, improved recovery, fewer limitations in daily living, higher educational attainment, greater productivity, better relationships and improved quality of life (Barry and Jenkins 2007).

1.6 Self-efficacy

Since the introduction of the concept of self-efficacy by Bandura (1977), studies examining the relationship between self-efficacy and depression have found that those who score higher on measures of self-efficacy show substantially fewer symptoms of depression (McFarlane et al, 1995). Self-efficacy refers to an individual’s estimation of how good they are at a given activity and their belief about how well they can organise and execute different behaviours (Bandura, 1982). Children’s and adults’ self-efficacy beliefs relate to their performance, the amount of effort exerted, cognitive strategy employed, goals achieved and overall, self-worth (Bandura, 1989). Much research has been done into children’s competency beliefs and how they change across the school years. Studies show that these beliefs become more negative over school-going years (Wigfield, Eccles,
Mac Iver, Reuman & Midgley, 1991; Stipek, Mac Iver, 1989). Possible explanations for this negative change in their competency and self-efficacy beliefs may be attributed to the “evaluative feedback they receive in school and the contextual changes in the kinds of school and classroom environments they experience as they move through school” (Wigfield, Eccles, 1994). Social self-efficacy is enhanced by establishing a positive class climate, where students support each other and teachers are sensitive to the individual needs of their students (Jerusalem, Hessling, 2009). Meta-analyses across a wide variety of subjects, experimental designs, and assessment methods reveal positive and statistically significant relationships between self-efficacy beliefs and academic performance and persistence (Multon, Brown, Lent, 1991). According to Bandura (1993) perceived self-efficacy exerts its influence through four major processes; cognitive, motivational, affective, and selection processes: Those of high self-efficacy expect to realize favourable outcomes. Conversely, those with low self-efficacy expect their efforts to result in poor outcomes (Bandura, 2004).

Many studies have reported the importance of self-efficacy on adolescents’ mental health (Muris, Schmidt, Lambrichs, & Meesters, 2001). It is positively associated with important facets of personality (e.g. motivation, social competencies) as well as to health-related situation-specific behaviour (e.g. coping with stress, conflict solving). It is a focal determinant because it affects health-behaviour, both directly and by its influence on the other determinants. Self-efficacy is a core prevention criterion of mental health; this is supported through research which indicates the potential role of self-efficacy in mediating depression (Mukhtar and Anuar Hashim, 2010). It appears that efforts to establish and maintain a sense of control over one's life and environment might serve to build a certain degree of resistance to subsequent symptoms of depression (Maciejewski, Prigerson, Mazure, 2000). While much has been written on the importance of self-efficacy as a determinant of academic development and persistence (Schunk, 1995; Zimmerman, 1995), there is little research which focuses on promoting self-efficacy in students as a tool to enable them to cope with various psychological difficulties or stresses they may face.
1.7 Intervention as a mediator of stress, self-efficacy and attitudes to mental health

The World Health Organisation suggests that in mental health "Early intervention is fundamental in preventing progress towards a full-blown disease, in controlling symptoms and improving outcomes". Strong self-esteem and optimism are essential factors in good mental health; protective factors against depression; and likely to prevent the person from engaging in potentially harmful behaviours (Spooner, Hall & Lynskey, 2001). Evidence to support intervention programmes suggest that high-quality comprehensive programmes - that focus on young people - produce long-lasting positive effects on mental, social and behavioural development (Greenberg et al 2003). Overall, research on mental health educational interventions is limited worldwide. In general, among studies on health educational interventions, mental health has not been emphasized. There have been studies exploring attitudes towards mentally ill people and mental illness or the knowledge and understanding of mental illness among young people (e.g. Furnham, Cook, Martin & Batey, 2011; Essler, Arthur & Stickley, 2006; Ng & Chan 2000; Leighton, 2009; Schulze 2005). However, research on the effectiveness of educational interventions among secondary school pupils has not been widely developed. Schulze et al. (2003) developed a project-week for German teenage school students during which they met a young person with a diagnosis of schizophrenia and found it led to a significant reduction of negative stereotypes. A limited number of studies have examined the effects of various educational interventions on mental illness stigma (Griffiths, Christensen, Jorm, Evans, & Groves, 2004; Corrigan and Watson 1999; Pinfold et al., 2003; Walker & Read, 2002; Watson et al. 2004), and while the instruments used in these studies were not always the same, no negative results were found. This means that all of the educational interventions had positive attributes. Thus, mental health education provides positive outcomes. There are a growing number of youth-focussed intervention programmes coming into play throughout different countries to improve attitudes to mental illness, the most notable of which are; ‘MindMatters’ in Australia and
'Mindout for Mental Health‘ in the UK and ‘Jigsaw’ - the community-based approach in Ireland modelled on the Australian *MindMatters* programme. However, most of these studies focus primarily on improving knowledge of mental illness rather than on promoting positive mental health amongst the students themselves. One intervention (Essler, Arthur & Stickley, 2006) looked at secondary school pupils knowledge about, and attitudes towards mental health problems, which they measured before and after an educational intervention using the “*Mindout for Mental Health*” quiz (as applied in this study). This study concluded that school-based interventions which are both educational and experiential have the potential to improve knowledge about mental health problems and decrease stigmatizing attitudes among 13 – 14-year-old pupils. However the same study focussed on improving mental health literacy in young people without fostering better social or individual competencies. Steese, (2006) evaluated the effectiveness of the ‘*Girls’ Circle intervention*’ on improving social support, body image, locus of control, self-efficacy, and self-esteem. Results revealed a significant increase in social support, body image, and self-efficacy after completion of the program. However, this programme was for girls only and had too narrow a remit.

From a review of the literature on mental health promotion the overall message is:

“The evidence of mental health promotion effectiveness is still emerging, and while there is no consensus on what works best, there are recognized groups of risk and protective factors that can be reduced or enhanced by interventions”

(Barry, 2007 as cited by Pollett, p2, 2007)

From further research into this area there is no study of secondary school children in Ireland which has experimentally assessed the content of an intervention in terms of measures of self-efficacy and perceived stress on the participants to determine relative efficacy.

1.8 The Positive Mental Health Intervention Programme
The *Positive Mental Health Foundation* (PMH) is a charity which was set up in 2005 at a time of escalation in tragic young deaths. The pilot phase was successfully completed in early 2006 in 3 schools in Galway. The initiative was driven by the goal of PMH which was to implement positive health promotion as early as possible in schools through training and education and to reduce the stigma attached to mental health matters. To this end, PMH provides basic training in group skills to volunteers who deliver well thought-out modules on mental and emotional issues to secondary schools in Galway City and County.

The aim of the programme delivered by the ‘*Positive Mental Health Foundation*’ is to provide secondary school students with developmentally-appropriate supports that prepare and facilitate them in their movement toward greater self-sufficiency and successful achievement of their goals. This particular programme adopts a competence perspective which is concerned primarily with building strengths and feelings of competency and efficacy amongst the students. The aim of the programme is a preventative one in that, as the students become more capable their psychological well-being improves. It is also envisioned that increased knowledge of issues around mental health within their immediate domains will result in improved attitudes to mental illness and a willingness to seek help. The PMH Intervention promotes positive mental health for young people by deploying strategies that enhance individual inner strengths, thereby reducing the risk of subsequent negative outcomes. The Programme aims to provide a safe framework within which the participants can learn to express themselves and to learn coping skills and strategies that will enable them to meet the inevitable challenges of life and encourage them to verbalise their feelings, thoughts, fears and anxieties. The essential ethos of PMH is to foster among young people:

- Psychological well-being
- Strong Support System
- Coping skills to maximise their potential
Content of the PMH intervention Programme:

This programme is delivered to transition year students as a seven-week module (eight weeks - time permitting). Usually a minimum of three facilitators are trained by the Charity to deliver the intervention for 80 minutes each week to a group of no more than 24 students at a time. Interactive sessions with discussion and activities form part of the intervention. Students are encouraged to take part in role playing working through various scenarios under the following modules:

- Week 1 – Determinants of mental health and stigma
- Week 2 – Feelings and emotions (anger, joy, fear...)
- Week 3 – Relationships and friendships
- Week 4 – Peer pressure and Self-esteem
- Week 5 – Lifestyle and Media (advertising and body image)
- Week 6 – Loss and grief
- Week 7 – Bullying
- Week 8 – ‘Happiness is an inside job’ (time permitting)

1.9 Rationale for this study:

It has been established that people’s attitudes and beliefs predict their behaviour (Ajzen & Fishbein, 1980) and attitudes about mental illness might predict whether adolescents disclose their symptoms and seek treatment and support. Adolescence is an ideal time to encourage positive attitudes, reduce stigma related to mental disorders and reduce the illness burden across the life span (Pinto-Foltz & Logsdon 2009). From research into this area, there has been no study which looks at adolescent knowledge about mental illness as an important indicator of their own willingness to seek professional help in times of difficulties. School settings offer an ‘untapped opportunity for the development and evaluation of effective prevention strategies to reach both children and parents’ (Story, Kaphingst and French, 2006). There have been some attempts to decrease the stigma
associated with mental health problems among secondary school students through the use of a brief classroom-based intervention (Pinfold et al., 2003). Wahl et al. (2002) noted that most of those concerned with the problem of mental illness stigma believe that the negative attitudes expressed by adults have their roots in early childhood. However other evidence points to explicit conceptions of personality traits - which are the basis for the formation of stereotypes about groups of people - are not developed until adolescence (Flavell, Miller, Miller, 2001). Projects with children and young people therefore appear to be a particularly promising intervention and this study will assess the effectiveness of the PMH programme as an early form of intervention against stigmatization. The programme’s success in this area will be assessed through the admission of a 10 question ‘pop quiz’ on mental health before and after the seven-week course, which should demonstrate if the students show increased knowledge about different aspects of mental illness and its prevalence in society. It is hoped that through this evaluation we will find support for the introduction of a more inclusive and widespread positive mental health educational programmes throughout the country.

Another focus of this study is on exploring the impact of intervention programmes on focal determinants of mental health such as stress and self-efficacy. The variables of stress and self-efficacy were chosen because of their reliability and validity in previous research and because there is a significant relationship between adolescents’ stress, mental health and their psychological well-being (Compas 1987). Research suggests that well-adjusted adolescents have higher self-esteem and more resilience to the negative effects of stressful events than vulnerable adolescents (Dumont and Provost 1999). The perception of stress is directly mediated by one’s personal system of beliefs and attitudes. Thus self-cognitions - associated with control and self-efficacy - tend to lower stress and distress levels (Westerman, Grandy, Ocanto, Erskine, 1993). Evidence to support intervention programmes suggest that high-quality comprehensive programmes produce long-lasting positive effects on mental, social and behavioural development (Greenberg et al 2003). However, no evaluation has been undertaken of intervention programmes in schools in Ireland from the perspective of improving self-efficacy to bolster coping skills in adolescents. This present study is
primarily interested in whether school-based intervention programmes help to reduce stress levels and increase levels of self-efficacy in order to provide a better outlook for the students. To that end this study will assess the effectiveness of the PMH intervention programme targeted at transition year students by evaluating whether self-efficacy and perceived stress will be improved post-intervention. This study will evaluate the intervention by using the General Self-Efficacy Scale (Jerusalem and Schwarzer, 1981) and the Perceived Stress Scale (Cohen, Kamarck, Mermelstein, 1983) to establish if there are differences between these measures taken before and after completion of the Positive Mental Health Foundation’s seven-week programme. High self-efficacy indicates improved ability to deal with stressful situations. In summary the aim of this study is:

- To highlight the susceptibility of teenagers to mental health problems
- To contribute to a greater understanding of the risk factors for mental illness in youths
- To promote awareness of mental illness during secondary school and increase the likelihood that students will seek help when experiencing difficulties
- To strengthen awareness of the importance of fostering self-efficacy amongst students as a protective factor against mental illness
- To make recommendations for effective intervention in schools on a wider scale

The hypotheses are as follows:

- **Hypothesis 1**: There will be significant differences amongst students in levels of self-efficacy between starting and after completion of the PMH intervention programme.

- **Hypothesis 2**: There will be significant differences in levels of stress after participation in the PMH intervention programme.

- **Hypothesis 3**: There will be significant differences in attitudes to and knowledge of mental illness after participation in the PMH intervention programme.

- **Hypothesis 4**: There will be a significant correlation between levels of stress and self-efficacy.
Chapter Two: Methodology

2.1 Material

In this study, questionnaires and pens were used. Self-efficacy, perceived stress and attitudes to mental health were measured at two different time points using existing structured questionnaires.

2.2 Measures

- **Attitudes Mental health to**

A quiz was used to produce an informal data collection technique. Attitudes to mental illness were identified with a 10-item quiz from “Mindout for Mental Health”, developed by Stickley (2006) which was taken from the Mindout for Mental Health activity pack for young people (DoH, 2001). The quiz was designed to discover young people’s knowledge of mental health problems. The Quiz, (Stickley, 2006) included 10 multiple choice questions. Certain questions relating to issues such as violence and mental health were included, where incorrect answers were indicative of widely held stereotypes of people with mental health problems (Crisp et al 2000). This measure was employed for two main goals: (1) to establish baseline knowledge and attitudes about mental illness in this sample of TY students, and (2) to find out whether participation in an intervention programme, which looks at various aspects of mental illness, increases knowledge and improves attitudes about mental illness. As part of the programme, students completed pre- and post- test measures of knowledge and attitudes about mental illness. Added to this section were 2 open-ended questions which sought information on (a) whether the student had any close relation or friend who suffers or had suffered from any mental illness and (b) whether they would seek mental health treatment if they were in need. Further qualitative analysis was run to explore if those with a family member or
friend with mental health issues would demonstrate better knowledge about mental illness by scoring higher on the ‘MindOut for Mental health Quiz’.

- **Self–efficacy**

This was measured by the General Perceived Self-efficacy scale (GSE) developed by Schwarzer and Jerusalem (1995). This study utilised the 10-item scale that assesses self-efficacy based on personality disposition and was deemed a useful measurement due to its length and suitability for adolescents. According to its author, (Schwarzer & Jerusalem, 1995), the construct of Perceived Self-efficacy reflects an “optimistic self-belief... that one can perform novel or difficult tasks, or cope with adversity”. Perceived self-efficacy can be regarded as a positive resistance resource factor. Each of the ten questions refers to successful coping and implies an internal-stable attribution of success. The 10 item questionnaire Self-efficacy was completed by 60 participants in both pre- and post-intervention conditions. Participants were asked to respond by indicating their extent of agreement with each of the statements using a four point Likert scale of 1 (not at all true) to 4 (exactly true). Examples of items on the scale include “If I am in trouble, I can usually think of a solution.” The scores for each of the ten questions were added together to give a total GSE score. Higher scores on the scale indicate high self-efficacy. The PSS has demonstrated high internal consistencies with Chronbach Alpha (ranging from .76 to .90) and has been deemed reliable. Criterion-related validity is documented in numerous correlation studies where positive coefficients were found with favourable emotions, dispositional optimism, and work satisfaction. Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints (Schwarzer, 2009).

- **Stress**

Stress was measured by the Perceived Stress Scale (PSS) developed by Cohen, Kamarck, & Merrelstein, (1983). It is a 10-item questionnaire that measures the degree to which situations in
one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. Participants are asked to indicate in their response to how often they felt a certain way over the past month, e.g. “In the last month, how often have you felt that you were unable to control the important things in your life?” Participants indicate their choice from 0= (Never) to 4= (Very often). Positive results were recoded and final scores were tallied. The range of possible total scores vary from a minimum score of 0 to a maximum score of 40 and the higher the score the greater the perceived stress. The mean normalised score given by the authors is 13.05 (SD = 6.35). Hence, according to the author’s results, participants scoring 20 or higher have high levels of stress. Cronbach Alpha was run to determine that internal validity >.75.

2.3 Participants

Participants for this study were taken from three schools in the west of Ireland, one urban and two rural, between December 2013 and February 2014. The students were aged between 15-17 years and of mixed gender and participated in the PMH intervention module as part of their Transition-Year curriculum. Access to this sample was gained through the researcher’s association with the PMH charity - who have established their credentials in schools in the west of Ireland. This was an opportunistic sample, as participating schools were chosen on the basis of availability and time constraint. Once the charity confirmed which schools would be participating in their programme, during the pre- or post- Christmas period, the researcher sought and gained independent authority from the school principal and transition year co-ordinator (where appropriate) to disseminate the three questionnaires. Individual permission was also sought from the students themselves through an Informed signed consent form. There was no compensation offered for participation. The students were informed of their right to withdraw from the study at any time and phone numbers for helplines and written advice to speak with a suitable member of staff if necessary were included
on a separate sheet and given out to each student along with an information leaflet. 73 students were present in total at some stage of the procedure but those who had been absent for either time period or had undertaken less than 5 of the PMH programme modules were removed from the analyses, as they did not match the criteria for participation.

### 2.4 Design

This is a repeated mixed measure quasi-experimental design with the Positive Mental Health (PMH) transition year programme as the intervention. It is a qualitative study based on psychological measures of; perceived stress scale, self-efficacy scale as well as a total of right and wrong answers to the *MindOut for Mental health* quiz: The higher the score in the Quiz - the lower the knowledge of mental health issues. The independent variables are the transition-year students who have undergone at least 5 weeks of the PMH intervention programme. The dependent variables are stress, self-efficacy and attitudes to mental health as well as time - before the intervention (T1) and after the intervention (T2).

### 2.5 Procedure

The researcher submitted the research proposal to the College ethical board with a statutory declaration that there was no legal impediment to working with children. Once ethical approval was attained the researcher compiled an information pack for schools which contained; 3 questionnaires, an introduction letter, an informed consent form and a loose page with helpline numbers for mental health charities and associations.

- **Time 1:**

On arrival to the school the researcher introduced herself and set about informing the students about the study in a classroom setting. The students were assured that it was the PMH intervention
which was under scrutiny and not them. They were also told that there were no right or wrong answers and asked to answer the questions as honestly as they could; they were also assured of the privacy and security of their information. The students were canvassed for questions and whether there was any further information that they required. The questionnaires were then administered by the researcher to the students after they were informed of their right not to participate. They were asked to sign the consent form to indicate their permission was sought and granted, as well as requested to put a unique username or their mother’s maiden name on the top of the answer sheet. On completion of the questionnaire, approximately 12-15 minutes later, the students were told that the researcher would be returning in seven or eight weeks, once they had completed the PHM intervention programme, to see if the course had been deemed helpful for them in any way. Once again the students’ attention was directed to the student code at the top of the page and asked to put their mother’s maiden name at the top or a username that uniquely identified them so that their return questionnaire could be paired with this one. They were debriefed and offered a variety of contact details for helplines and assistance should they require it. The identity of the individual scales used was not revealed nor were they offered information about what specifically it was that was being measured. The questionnaires were collected by the researcher and placed in a folder. The students were thanked wholeheartedly for their cooperation and informed that their participation may help to improve the intervention programme for other students in the future.

- **Time 2:**

The second data set was collected exactly the same way: The researcher returned to the school immediately after the last module of PMH programme was delivered. Again students were given their questionnaire in a classroom setting and advised of their rights not to participate. Identical questionnaires were distributed in booklet format to the students with instructions for them to put the same student code on the second set of questionnaires as they did on the first set of questionnaires so that their answers would be matched up for accurate analysis. On completion of the answers, the booklets were collected and the students were instructed to retain a single page
which had numbers for helplines should they have any difficulties or had become upset from their participation in the research. Once the students had completed the questions, which took approximately 12-15 minutes, they were debriefed. The students were assured of the security of their information and thanked for their participation. The questionnaires were collected by the researcher and kept securely until inputted to SPSS for analysis. The same procedure was followed for all of the 3 schools which participated in the study.

2.6 Data Analysis

Data was analysed using the SPSS-21 programme. Descriptive analysis was initially preformed. Inferential analysis was performed on data collected using a paired sample t-test (two-tailed) to look at the difference between time 1(T1) and time 2(T2) within groups, for measures of self-efficacy, perceived stress and attitudes to mental health. Independent t-tests were also performed for gender comparison on the same variables and on the relationship between location of schools and the different variables. Post hoc analysis was also carried out to look at perceived stereotyping in relation to violence and mental illness.
Chapter Three: Results

There were 73 students who contributed to this study with 60 students completing both timelines. Data from the 60 participants who satisfied both conditions was used for statistical analysis. A paired sample t-test was conducted to compare students at T1 and T2 for the dependent variables of perceived stress, self-efficacy and attitudes to mental health. A standard alpha level of p< .05 was applied. There were three main hypotheses: The first was that there would be significant difference in levels of self-efficacy amongst students after completion of the PMH intervention programme. The second hypothesis stated that there would be significant difference after participation in the programme for stress. The third Hypothesis stated that there would be differences in students’ knowledge about mental illness between T1 and T2. Some of the data could not be used as they did not meet the minimum 5 weeks requirement of attendance or only completed either T1 or T2 of the questionnaire.

3.1 Descriptive statistics:

Of the 60 participants in the study there were Males (36) and females (24). Of 3 schools canvassed, 2 were located in the country and 1 in an urban environment as indicated on table 1.

<table>
<thead>
<tr>
<th>Location</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Male</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>19</td>
</tr>
<tr>
<td>Urban</td>
<td>Male</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 1. Descriptive statistics to indicate gender and location variables
In a descriptive analysis of the 2 supplemental questions on mental health, 35% of respondents stated that they had a close friend or family member who suffered from mental health problems, as indicated in figure 1.

![Family or close friend with mental health problems](image)

Figure 1

### 3.2 Inferential statistics:

- **Gender and psychological variables**

Statistics were run to determine if there were gender differences for variables of stress and self-efficacy. While the mean score for self-efficacy for females (Mean=27.14, SD=4.53) was slightly lower than males (Mean=28.61, SD=3.64), an independent sample t-test found the difference was not significant ($t(56) = 1.37, p=.178$). However, the study found significant difference between males (Mean=17.19, SD=4.94) and females (Mean=21.61, SD=6.71) in measures of perceived stress ($t(57) = -2.91, p=.005$). Analysis was run on data collected before the start of the intervention (T1). This is indicated in Table 2.
Table 2. *Group statistics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy total</td>
<td>Male</td>
<td>35</td>
<td>28.71</td>
<td>3.64</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22</td>
<td>27.14</td>
<td>4.53</td>
</tr>
<tr>
<td>Stress total</td>
<td>Male</td>
<td>35</td>
<td>21.06</td>
<td>3.93</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>23</td>
<td>22.65</td>
<td>3.77</td>
</tr>
</tbody>
</table>

- *Location of school and independent variables*

Inferential statistics were run to determine if there was any relationship between location of the school and psychological measure of stress, self-efficacy as well as knowledge of and attitudes to mental health. Results are summarised in *table 3*.

Table 3. *Inferential statistics of location, psychological measures and mental health attitudes:*

<table>
<thead>
<tr>
<th>Variable</th>
<th>location</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes to mental health</td>
<td>rural</td>
<td>17.12</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>urban</td>
<td>16.41</td>
<td>1.50</td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>rural</td>
<td>27.68</td>
<td>3.53</td>
</tr>
<tr>
<td></td>
<td>urban</td>
<td>29.12</td>
<td>5.02</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>rural</td>
<td>21.88</td>
<td>3.70</td>
</tr>
<tr>
<td></td>
<td>urban</td>
<td>21.28</td>
<td>4.44</td>
</tr>
</tbody>
</table>

Slight differences were found between the mean scores for stress between urban (mean=29.12, SD=5.02) and rural based students (Mean=27.68, SD=3.53). However, an independent t-test found this difference was not significant,(t(56)=1.06,p=.292); There was no significant difference between
students’ self-efficacy \( (t(57)=.074, p=.942) \) and attitudes to mental illness \( (t(57)=1.51, p=.136) \) across the urban rural divide.

- **Self-efficacy**

The first hypothesis stated that there would be differences in scores of self-efficacy amongst students between T1 and T2. The generalised Self-efficacy scale was created to assess a general sense of perceived self-efficacy to predict coping ability. The mean and standard deviation of the scale were obtained for the sample as a whole in both conditions i.e. before the intervention in Time 1 (T1) and after the intervention in Time 2 (T2). Results are shown in table 4.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>28.05</td>
<td>4.02</td>
<td>54</td>
</tr>
<tr>
<td>Time 2</td>
<td>29.09</td>
<td>4.23</td>
<td>54</td>
</tr>
</tbody>
</table>

Mean difference is significant at the level 0.05

The overall mean for self-efficacy T2 (mean=29.09, SD=4.29) was significantly higher than in T1 (mean=27.89, SD=3.91) and the higher the figure, the higher the measure of self-efficacy. The authors suggest a mean score of 29.48, SD=4.0 (gleaned from a large sample of 3,494 German high school students\(^5\)). The 95% confidence limit shows that the population mean difference of the variables lies somewhere between -2.14 and -.27. A paired sample t-test was run to look for differences between scores on measures of self-efficacy, between T1 and T2. The paired simple t-

\(^5\) [http://userpage.fu-berlin.de/~health/faq_gse.pdf](http://userpage.fu-berlin.de/~health/faq_gse.pdf)
test showed significant difference in self-efficacy within groups between T1 and T2 (t (53) = -2.58, p=0.013). As shown in figure 2.

![Figure 2](http://podcast.uctv.tv/webdocuments/COHEN-PERCEIVED-STRESS-Scale.pdf)

**- Perceived Stress**

The second hypothesis stated that there will be differences in levels of perceived stress between T1 and T2. The PSS 10 (Cohen, Kamarck, Merzelstein, 1983) was used to measure levels of stress among participants before and after the PMH, TY programme. The authors of the scale suggest that a score of 20 or more indicates high levels of stress⁶. Psychological stress was assessed in 3 national surveys administered in 1983, 2006, and 2009 (using the PSS) suggesting greater stress-related health risks among women and younger adults. Mean population score for stress for under-25s was given to be 16.78 (Cohen, Janicki-Deverts, 2012). Before the TY intervention programme the mean score for perceived stress was higher (Mean=19.22, SD=5.88) than that measured after the intervention in T2 (Mean= 17.87, SD =6.81). The results show that post-intervention levels of stress were reduced from a high baseline, as deemed by the authors. A paired sample t-test showed that

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there was no significant difference between pre-and post-intervention in scores of perceived stress (t (53) =1.59, p=.119). This is indicted in Table 5.

Table 5. Inferential statistics for stress variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>19.22</td>
<td>5.88</td>
<td>54</td>
</tr>
<tr>
<td>Time 2</td>
<td>17.87</td>
<td>6.81</td>
<td>54</td>
</tr>
</tbody>
</table>

Mean difference is deemed significant at the level 0.05

- **Attitudes to mental health**

The third Hypothesis states that there will be differences in students’ knowledge about mental illness after the intervention. However a 2-tailed paired sample t-test which was run on scores from the MindOut for Mental Health quiz showed no significant difference between the numbers of correct answers given on the post-intervention compared to answers given pre-intervention. Pupils’ median quiz score was greater following the intervention (Median=17) than before it (Median=16). Possible reasons for this will be addressed in the discussion and limitations section. The lower the median score the greater the correct answers.

- **Family with Mental health problems**

It was also predicted that those who had either a close relation or friend with mental health difficulties would score higher in the Mindout for Mental health quiz. An independent t-test was run and found there was no statistical difference between mean scores on the Quiz for those with a friend or relation who suffers from mental health issues compared to those without (t(51)=-.395, p=.694).
- **Willingness to seek help**

In an analysis of answers to the question on whether students would be willing to seek help should they experience difficulties, the numbers of students who stated that they would be willing to seek help, if needed, increased slightly from T1 (73%) to T2 (75%).

- **Correlation between psychological variables**

Finally a Pearson’s r correlational statistical analysis was conducted to find a correlation between perceived stress and self-efficacy. First a simple scatterplot was run to determine if there was a correlation between the two variables of stress and self-efficacy on the scale measures of total scores T2. The scatterplot showed no significant correlation between the two variables. The mean score for stress (T2) was 21.27 (SD= 4.69) and for self-efficacy (T2) was 29.27 (SD= 4.04). A Pearson correlation found that there was no correlation between stress and self-efficacy (r (53) = -.103, p=.453).
Chapter Four: Discussion

Evidence suggests that high-quality comprehensive intervention programmes that focus on young people, produce long-lasting positive effects to mental, social and behavioural development. Against this background, this study set out to measure stress levels in students and to assess whether an educational intervention would be effective in building self-efficacy and reducing stress, as well as improving attitudes towards mental illness in participants of the programme. The PMH (TY) Intervention programme was chosen as the intervention for this study. The aim of the PMH programme is to provide secondary school students with developmentally-appropriate supports to facilitate them in gaining greater self-sufficiency by building feelings of competence and efficacy. It was hypothesised that there would be differences between levels of stress, self-efficacy and attitudes to mental illness pre- and post-intervention.

4.1 Variable results:

- **Self-efficacy variable**

In this study, the students were tested pre- and post- intervention to establish if there were improvements in measures of self-efficacy and perceived stress as well as improved knowledge of, and attitudes to, mental illness. Findings from analysis of the data found improvements in self-efficacy between T1 (before the course) and T2 (after the course), this finding is consistent with the first hypothesis that there would be differences in self-efficacy found between pre- and post-intervention. Therefore the null hypothesis could be rejected. The overall mean for self-efficacy was significantly higher post-intervention (mean=29.09, SD=4.29) and the higher the figure, the higher the measure of self-efficacy. The authors suggest a population mean score of 29.48, SD=4.0, the intervention brought the TY students within the norm for the population for self-efficacy.
- **Stress variable**

It was also hypothesised that there would be differences in stress level pre and post intervention. While students showed lower levels of stress after the intervention, these improvements were not considered statistically significant. Therefore the null hypothesis cannot be rejected. What is interesting however, is the high level of stress found amongst students and that there were higher levels of stress recorded amongst females, consistent with previous research. There were no differences between attitudes to mental health post-intervention, so the null hypothesis cannot be rejected.

- **Correlation between stress and self-efficacy**

Findings from this study found no correlation between stress and self-efficacy: It was proposed that as self-efficacy scores increase, stress scores would come down. While scores on stress did go down and self-efficacy did improve this study did not find support the fourth hypothesis that stated there would be a correlational relationship between self-efficacy and stress. Other studies suggest that providing students with appropriate supportive services may help them to manage stress and prevent depression (Sawatzky, Ratner, Richardson, et al, 2012). It follows, therefore, that interventions that focus on building self-efficacy may be successful in reducing depressive symptoms. While findings from this study have not found significant statistical evidence to support this hypothesis further research needs to be carried out in this area.

- **Attitudes to mental health**

While this study did not find evidence to support the third hypothesis; that attitudes to mental health would be different between pre and post-intervention, all previous research supports increased knowledge of issues around mental health will improve attitudes to mental illness and a foster a willingness to seek help. Closer inspection of answers pertaining to labelling those with mental illness as ‘violent’ the study found that the majority of respondents answered correctly (T1
and T2): When asked: Which group of people is most likely to be a danger to the public a) young men under the influence of alcohol or (b) People with mental health problems? 73% said young men under the influence of alcohol. This high correct response rate may be due to the students’ personal exposure to friends or family who they have observed drunk and aggressive. More research on maladaptive coping in teenagers and whether the rate of alcohol consumption amongst this age group is linked to stress is needed.

4.2 Interpretations of results: Stress and self-efficacy

Results from this study indicate that teenagers are suffering from high levels of stress. These findings support the recent report from the APA which reveals that teens are experiencing stress at levels far higher than what they believe is healthy and their reported stress levels are even higher during the school year. This is impacting on their performance at home, work and school. While no-one can avoid all stressful situations, effective coping mechanisms can enable individuals deal proactively with pressures and minimise both the long and short term negative effects of stress. The APA (2014) however, they often do not know what to do to manage their stress. This study of 15-17 year olds in Galway shows that mean levels of stress before the PMH intervention began were considered high, according to the authors of the PSS (Cohen, Kamarck, Mermelstein, 1983). This study also supports previous findings (Schraedley, Gotlib, Hayward, 1999) with girls reporting the highest levels of stress. While this study did not establish significant results for reduced levels of stress post-intervention to support the second hypothesis - it did record lower mean levels of stress amongst participants, after completion of the PMH programme. This reinforces the need to focus on identifying the causes of stress in teenagers and establishing what short and long-term impact chronic stress will have on them. Interventions, particularly at an early level, are critical to addressing this epidemic. Intervening early can go some way towards tackling stress in adolescents (Story, Kaphingst and French, 2006) and can instigate critical behavioural changes that can endure throughout life. This study demonstrates that there are opportunities to teach students about the effects of stress to help them
learn better ways to cope. Giving teenagers the tools to form healthy lifestyles and behaviours will help to reverse their current trajectory towards chronic illness and poor mental health and serve to recoup significant economic benefits for society. The study’s findings from the Pearson’s r also supports the relationship between self-efficacy and stress as identified by Sawatzky, Ratner, Richardson, et al, (2012).

4.3 Limitations

There were limitations to this study. The sample population was chosen on the basis of timing and which schools were undergoing the PMH intervention during a restricted window for the researcher. The intervention is only run throughout the Galway region and as a consequence, the three schools which participated in this study are Galway-based and may not generalise to the wider community. Future studies might also include other ‘mental health’ intervention programmes to allow for a more representative assessment of their efficaciousness in improving adolescents levels of self-efficacy and reducing stress. The MindOut for Mental health quiz, which this study utilised, was inappropriate for assessing attitudes and knowledge about mental illness in this instance. The quiz was not adopted specifically for the PMH intervention programme and as such did not reflect the scope of learning matter which was dealt with during the PMH module on mental health. While the PMH intervention focused on individual’s own mental health; efforts to promote positive attitudes to mental health as well as working out ways to deal with personal mental health issues, the MindOut for Mental health quiz looks at mental health problems on a more general social level. The Quiz deals with questions regarding the incidence of mental health problems – in percentages, the symptoms of mental health problems, as well as incidences of discrimination faced by those with mental health problems also expressed as percentages. As the students were not specifically told the correct answers during the intervention, they were not able to identify the correct answer. This may be the reason that there was no significant improvement in knowledge of mental health illness post-intervention. Furthermore, self-reporting measures were utilised in this study which presents the
problem of positive self-presentation bias and students’ inclination not to take the research seriously. One of the problems with a repeated measures design is the loss of participants between conditions due to absenteeism and failure of some students to identify themselves consistently on questionnaires across both conditions. Not being able to match up some response sheets between T1 and T2 accounted for 10% loss of participants in this study. Stress levels could have been elevated due to the students feeling that they were being evaluated. Although the researcher indicated that they weren’t being assessed, anxiety linked to the feeling of being tested cannot be discounted.

4.4 Future research

Future research into this area is urgently needed. A more suitable assessment of attitudes to mental health is required due to the limitation of the measure used in this study. Further investigations into the causes of teenage stress are needed through a more qualitative study with open-ended questionnaires to allow them to express themselves more fully. Other information form this study threw up interesting information which should be addressed. Student’s unwillingness to seek help when in difficulty is worrying: When asked, if they would seek help if they found themselves in difficulty only 74% said yes, this only increased to 75% post-intervention. Again a qualitative study could focus on the reasons for this and help to deal with their reluctance in this area. Research into the coping mechanisms which teenagers are engaged in to deal with the stress which they are experiencing would also be valuable and could go some way to explaining the high rate of alcohol abuse which is beginning at an earlier age (SAMHSA)

4.5 Conclusions

This study set out to undertake study of the effectiveness of an intervention on mitigating stress and fostering coping ability in 15-17 year olds in the West of Ireland. The research was quasi-experimental in that measures of perceived stress, self-efficacy and attitudes to mental health were measured before the intervention and immediately afterwards. Finding from the study revealed high
mean scores for stress in the participants pre-intervention (19.22, SD=5.88) which were reduced, but not significantly, post-intervention to (17.87, SD=6.81). The high levels of stress measured here support the APA’s findings that teenagers today are suffering from the same levels of stress as adults (APA, 2014). Because there is a significant relationship between adolescents stress, mental health and their psychological well-being (Compas, 1987), these finding have wider implications for society. The serious physical and emotional influences that stress can have on health behaviours (Storch et al, 2007; Glaser et al 1999; Moeini, Babak et al, 2008) will continue to add to the Country’s health outcomes and growing health expenditure. This study however has found evidence to support the effectiveness of interventions and their role in facilitating students to establish and maintain strong self-efficacy which helps prevent them from engaging in potentially harmful behaviours and perpetuating unhealthy lifestyles. (Spooner, Hall & Lynskey, 2001). The study found significantly higher measures of self-efficacy post intervention (mean=27.89, SD=3.92) compared with Pre-intervention (Mean=29.09, SD=4.29). Higher levels of self-efficacy mean the better one’s perceived ability to deal with stress.
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5. Appendix

Information pack for schools:

Cover letter
Consent form

Questionnaires:

  * Attitudes to mental health Quiz
  * Self-efficacy scale
  * Perceived stress scale

Information sheet for students with numbers helplines
Information Pack for schools:

Dear student,

My name is Caitriona Gavin and I am a final year student in psychology in Dublin Business School. As part of my final year exam I am undertaking a research study on Intervention programmes for Transition Year students such as this one run by Positive Mental Health. I am going to give you information and invite you to be part of a research study.

**What is this research about?** This study is to test to see if programmes such as these are useful in promoting positive mental health and helping teenagers to cope better with everyday life.

**Why am I asking you?** Your school is one of three that I have chosen because you will be taking part in the seven-week course on Positive Mental Health.

**Do you have to do this?** You can choose whether or not you want to participate. We have discussed this research with your principle/transition year coordinator and she knows that we are also asking you for your agreement. But if you do not wish to take part in the research, you do not have to. Even if you say "yes" now, you can change your mind later.

**What does the research involve?** I will be handing you out three short questionnaires both before you start this programmed and when you finish in seven weeks. All you just need to do is to answer the questions honestly and as best you can. There are no wrong or right answers. Remember we are looking at the effectiveness of the course and not you!

**Is everybody going to know about this?**

All your information is anonymous and will be only seen by me and my immediate supervisor. You will not be asked to put your name on the questionnaire. The only reason I need your mother’s maiden name is so I can match up the questionnaires before and after so I can so the statistics for the study.

You may discuss anything about this research with me, your teachers, parents or friends or anyone else you feel comfortable talking to. There may be some words you don't understand or things that you want me to explain more about because you are interested or concerned. Please ask me to stop at any stage and I will take time to explain. Have you any questions?

May I take this opportunity to thank you for agreeing to participate in my study.
Caitriona.

Informed signed consent:

If you are happy to take part in this study please sign below:

This form will be kept separate from all question and answer sheets and is to show my supervisor that I have gained your permission.

I agree to take part in the research.

Print name: ______________________________

Signature: ______________________________

Date: _____________________________day/month/year
Gender: (tick one) Male: Female:

Questionnaire 1: Please tick your answer to each question

1. Which group of people is most likely to be unemployed?
   - blind people
   - deaf people
   - people with mental health problems
   - wheelchair users

2. In the last 50 years, the number of murders committed by people with mental health problems has:
   - fallen steadily
   - stayed the same
   - risen slightly
   - risen a lot

3. How many people will experience some kind of mental health problem in the course of a year?
   - one person in every hundred
   - one person in fifty
   - one person in ten
   - one person in four

4. Which of the following is NOT a symptom of developing a mental health problem?
   - loss of appetite
   - increase in time spent alone
   - sleeping a lot
   - loss of intelligence

5. What percentage of people with mental health problems say they have experienced discrimination in the workplace?
   - 7%
   - 17%
☐ 27%
☐ 47%
6. Its estimated that since 1985, suicide attempts by young men have:

☐ risen by 170%
☐ risen by 70%
☐ risen by 7%
☐ fallen by 20%

7. Which of the following conditions is NOT a mental health problem?

☐ anorexia
☐ anxiety attacks
☐ down’s syndrome
☐ schizophrenia

8. In 1996, what percentage of national press coverage linked mental health problems to violence and criminality?

☐ 46%
☐ 26%
☐ 16%
☐ 4%

9. Which group of people is most likely to be a danger to the public?

☐ young men under the influence of alcohol
☐ people with mental health problems

10. Which of these groups is unlikely to experience mental health problems?

☐ doctors
☐ young people under 25
☐ people who live in rural areas
☐ people with high incomes
Questionnaire 2.

Please read the sentences below and select an answer for each statement which indicates how much the statement applies to you. Write the answer in the box opposite the question (1, 2, 3 or 4)

1 = Not at all true  2 = Hardly true  3 = moderately true  4 = exactly true

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>I can always manage to solve difficult problems if I try hard enough.</td>
</tr>
<tr>
<td>2</td>
<td>If someone opposes me, I can find the means and ways to get what I want.</td>
</tr>
<tr>
<td>3</td>
<td>It is easy for me to stick to my aims and accomplish my goals.</td>
</tr>
<tr>
<td>4</td>
<td>I am confident that I could deal efficiently with unexpected events.</td>
</tr>
<tr>
<td>5</td>
<td>Thanks to my resourcefulness, I know how to handle unforeseen situations.</td>
</tr>
<tr>
<td>6</td>
<td>I can solve most problems if I invest the necessary effort.</td>
</tr>
<tr>
<td>7</td>
<td>I can remain calm when facing difficulties because I can rely on my coping abilities.</td>
</tr>
<tr>
<td>8</td>
<td>When I am confronted with a problem, I can usually find several solutions.</td>
</tr>
<tr>
<td>9</td>
<td>If I am in trouble, I can usually think of a solution.</td>
</tr>
<tr>
<td>10</td>
<td>I can usually handle whatever comes my way.</td>
</tr>
</tbody>
</table>
Questionnaire 3

Instructions: The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a tick how often you felt or thought a certain way.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

0=never ______ 1=almost never ______ 2=sometimes ______ 3=fairly often ______ 4=very often______

2. In the last month, how often have you felt that you were unable to control the important things in your life?

0=never ______ 1=almost never ______ 2=sometimes ______ 3=fairly often ______ 4=very often______

3. In the last month, how often have you felt nervous and "stressed"?

0=never ______ 1=almost never ______ 2=sometimes ______ 3=fairly often ______ 4=very often______

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

0=never ______ 1=almost never ______ 2=sometimes ______ 3=fairly often ______ 4=very often______

5. In the last month, how often have you felt that things were going your way?

0=never ______ 1=almost never ______ 2=sometimes ______ 3=fairly often ______ 4=very often______

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

0=never ______ 1=almost never ______ 2=sometimes ______ 3=fairly often ______ 4=very often______
7. In the last month, how often have you been able to control irritations in your life?

0=never 1=almost never 2=sometimes 3=fairly often 4=very often

8. In the last month, how often have you felt that you were on top of things?

0=never 1=almost never 2=sometimes 3=fairly often 4=very often

9. In the last month, how often have you been angered because of things that were outside of your control?

0=never 1=almost never 2=sometimes 3=fairly often 4=very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0=never 1=almost never 2=sometimes 3=fairly often 4=very often

11. Do you have a friend or family member that suffers or ever has suffered from mental health problems?

Yes ______________ No _______________

12. If you were having difficulties with regard to your mental health would you seek help. If so who would you ask? Please explain. If no, please explain?

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Before you hand the questionnaires back, I would like to remind you to put your mother’s maiden name on top of your sheet (student code) so I can match you with your final questionnaire which I will be giving out to you again in week seven.

Thank you for your participation in this study!
Students Information sheet to retain.

Sensitive topics:

If any issues have arisen as a result of your participation in this study I would urge you to speak with someone with whom you feel comfortable. I have also included some phone numbers for helplines and below which you should feel free to call.

Samaritans - 1850 60 90 90
Aware - 1890 303 302
Pieta House - www.pieta.ie

Wishing you good mental health.