

MINDFULNESS IN ACTION:

*Experiences and Impacts of
Short Mindfulness Intervention on
Resilience of University Students
Under Stress*

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'If you just sit and observe, you will see how restless your mind is. If you try to calm it, it only makes it worse, but over time it does calm, and when it does, there's room to hear more subtle things - that's when your intuition starts to blossom and you start to see things more clearly and be in the present more. Your mind just slows down, and you see a tremendous expanse in the moment. You see so much more than you could see before. It's a discipline; you have to practice it.'

Steve Jobs, 2011

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ABSTRACT

Interventions based on Mindfulness training are becoming increasingly popular. Mindfulness involves intentionally bringing attention to the inner and outer experiences occurring in the present moment, while enhancing one's ability to understand needs and feelings in real time, in a non-judgmental way. However, definitions of Mindfulness differ among practitioners, creating confusion between the terms Mindfulness, meditation and self-awareness. The proven benefits of Mindfulness are reduced stress, anxiety and mood disturbances, freedom from habitual thought patterns and enhanced focus and attention. Although the concept of Mindfulness has attracted scholarly attention across multiple disciplines, empirical research on Mindfulness amongst students remains limited. In particular, little research has examined the impact of Mindfulness interventions on resilience. Filling these gaps, the present research delineates Mindfulness and assesses the hypothesis that Mindfulness enhances resilience amongst university students under stress, using both qualitative and quantitative methods. Further, it examines effectiveness of a short Mindfulness intervention, investigates the additional benefits which may arise and identifies potential factors that influence Mindfulness levels of students. **Key words:** Mindfulness, students, resilience, awareness, stress, rumination. **Purpose:** This research examines the effects of 2-day Mindfulness intervention on 2 groups, comparing Mindfulness and resilience levels pre intervention (control) and post intervention (M age = 25.63; N=16; Male=4, Female=12). **Methodology:** Multi-method research design was conducted to address hypothesis and questions, combining thematic analysis of 15 interviews, with paired T-test of means for both Mindfulness and resilience levels of 16 participants, including correlations and regressions. **Results:** Research reveals that intervention groups experienced significant increases in Mindfulness as well as in resilience levels, compared to the pre intervention group ($p < 0.01$ in all cases). Research highlights additional psychological benefits, empirically supported by previous studies in this field, and exposes the misconceptions of Mindfulness in the student's realm. Nevertheless, qualitative analysis implies that age and culture play a significant role on Mindfulness.

CHAPTER 1 - INTRODUCTION

Recently, there has been a resurgence of interest in integrative techniques to address the interpersonal, emotional, and spiritual needs of individuals. One particularly popular technique is *Mindfulness*, which has received increased attention in the scientific community. Mindfulness is commonly referred today as 'the awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally, to the unfolding of experience moment by moment' (Kabat-Zinn, 2003, p.144). The Dalai Lama (1999) considered Mindfulness as the single most important aspect of cognition and integral in the

development of an altruistic and universally applicable system of ethics in the 21st century. Several generations of Westerners have been practicing Mindfulness on a daily basis, such as the renowned Steve Jobs (Isaacson, 2011) who regularly attended Mindfulness meditation retreats. However, definitions of Mindfulness differ among practitioners, who debate whether Mindfulness is a trait, a mental state or a practice. The more popular Mindfulness becomes, the more its true meaning is diluted, becoming 'a fuzzy cloud combining and mixing all kinds of ideas' (Schmidt, 2011, p.28). Thus, the question of what we are really analysing here is of importance when applying the notion of Mindfulness. It makes sense to go back to the roots of Mindfulness and to critically evaluate the different definitions.

Many philosophical, spiritual, and psychological streams emphasise the importance of the quality of consciousness for the maintenance and enhancement of health and well-being (Wilber, 2000). Mindfulness has proven very effective as a treatment option for the reduction of stress, pain, anxiety and depression (Kabat-Zinn, 1990), as well as a daily coping tool for healthy individuals (Shapiro, Schwartz & Bonner, 1998). Mindfulness has proved to help individuals disengage from automatic thoughts, habits, and unhealthy behavior patterns, and by that to elevate happiness in a direct way (Brown & Ryan, 2003). Mindfulness is instrumental in fostering informed and self-endorsed behavioral regulation, which is consistently associated with well-being enhancement (Ryan & Deci, 2000). Still, the role of Mindfulness in resilience enhancement has yet to be examined. This research attempts to fill this gap, by demonstrating the importance of Mindfulness in the psychological resilience of university students under stress.

Personal interest and transformative experiences (See Appendix 12) have motivated the researcher to launch this research and further investigate the great benefits of Mindfulness in the student's realm. The researcher also aimed to reliably identify any existing variations in Mindfulness intervention programs, while examining effectiveness of her unique program.

CHAPTER 2 - THEORETICAL BACKGROUND

2.1 What is Mindfulness? Roots, Definitions and Misconceptions

Mindfulness was introduced into the modern Western culture after having been an important concept for 2500 years (Germer, 2004) in the Eastern Buddhist realms. The word Mindfulness originates from the Pali (Buddhist) word '*Sati*', which means awareness, attention and remembering (Bodhi, 2000). Buddhists have believed that the ultimate goal of liberation would be reached by the insights and truths that Mindfulness provides (Schmidt, 2011). Their tool of reaching this desired liberation was '*Vipassana*', silence meditation retreat, which means insight or clear awareness. Historically, Mindfulness has been called 'the heart' of Buddhist meditation (Thera, 1962). It resides at the core of Buddha teaching, traditionally described by the Sanskrit word '*Dharma*', which means 'the way things are' or 'the laws of physics' (Kabat-Zinn, 2003). Kabat-Zinn (2003) elucidated this concept: 'it is a coherent phenomenological description of the nature of mind, emotion, and suffering and its potential release, based on highly refined practices' (p.145). Dharma is the nature of 'what-is', factors of existence, and the attainment of enlightenment (Goldstein, 2002). Buddhists believed that the goal of remembering to be aware of the present moment is so that we can remember to let go of it (Shonin, & Gordon, 2014). Acceptance of what we have now and simultaneously understanding that we have to let it go, may seem confusing, but is a fundamental requirement in practicing Mindfulness. However, the transfer of Mindfulness from Eastern to Western culture has changed this ancient concept.

The idea of Mindfulness was brought into the Western culture in the 1970's, introducing the function of an individual's conscious, purposeful choice and ability to be fully aware in the present moment (Hanh, 1976). Thera (1972) described Mindfulness as 'the clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception' (p. 5). Thera (1972) also argued that awareness prevents the individual from being distracted by intrusive thoughts. Eventually, at the beginning of 1979 Kabat-Zinn

(2003) conceptualised Mindfulness as 'the awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally, to the unfolding of experience moment by moment' (p.144). Thus, Mindfulness encompasses both awareness and attention. Brown and Ryan (2003) defined awareness as 'the background 'radar' of consciousness, continually monitoring the inner and outer environment', and attention, as the 'process of focusing conscious awareness, providing heightened sensitivity to a limited range of experience' (p.822). Marlatt & Kristeller (1999) highlighted that attention to the present experience should be on a moment-to-moment basis. For example, Mindfulness eating means to be attuned to the moment-to-moment taste experience, but also to be aware of the increasing feeling of fullness in the stomach (Brown & Ryan, 2003).

Mindfulness can be distinguished from various forms of self-awareness that have received considerable attention over the past 30 years. Primarily, self-awareness was defined as 'knowledge about the self' (Duval & Wicklund, 1972), which means becoming conscious of emotions, such as shame, guilt and embarrassment. Self-awareness does not occur suddenly: it develops gradually through a succession of different behaviors all of which relate to the self (Bertenthal & Fischer, 1978). But most people are not fully conscious about how those emotions affect their lives. Moreover, there is a difference between being aware of your emotions per se and being aware of them, as you experience them. Emotional awareness or emotional identification is the ability to distinguish the emotion being felt moment-by-moment, while being keenly aware of any discrepancy between words, tone and expression (Caruso & Salovey, 2004). Following that, Mindfulness was simply defined as or as a 'moment-by-moment awareness' (Germer, Siegel & Fulton, 2005, p. 6), enabling identification of emotions in real time, control of emotional reaction and increased emotional balance and clarity (Tart, 1994; Brown, Ryan & Creswell, 2007).

According to Brown et al. (2007), definitions of Mindfulness are typically selectively interpreted based on the context and practitioner. Some view Mindfulness as a mental state,

while others view it as a trait and practice (Black, 2009). These different interpretations shaped a vague concept and generated confusion between Mindfulness, awareness, attention and meditation. In this research, Mindfulness is viewed as a mental state rather than a trait, and whilst it might be promoted by certain practices (e.g., meditation), it is not equivalent to them.

2.2 Mindfulness in Neuroscience

Scientifically, Mindfulness has attracted substantial empirical attention over the last 15 years, after findings have challenged the common belief that the human brain stops its growth and development after the age of 30 (Sowell et al., 2003). Several neuroscientists (Davidson et al., 2003) showed that brain structure differ across people who meditate regularly, especially after attending as little as an 8-week Mindfulness program. They reported for the first time significant increases in left-sided anterior activation and found 'significant increases in antibody titers to influenza vaccine' (Davidson et al. 2003, p.564), which demonstrates increased immune system function. Correspondingly, it was proved that Mindfulness meditation stimulates the middle prefrontal brain associated with both self-observation and metacognition (Cahn & Polich, 2006; Siegel, 2007) and fosters specific attentional mechanisms (Valentine & Sweet, 1999). Later, Farb et al. (2007) showed that Mindfulness practice increases 'viscero-somatic' processing and uncouples 'narrative-based' processing in the brain. More recent studies conducted using functional magnetic resonance imaging (fMRI) reinforced the evidence of physical and neurological benefits when Mindfulness is practiced regularly (Raffone, Tagini & Srinivasan, 2010).

2.3 Proven Benefits of Mindfulness

Mindfulness practice has been positively associated with a vast array of psychological benefits, which increase every year with robust empirical support. Mindfulness practice has been proven to lower levels of psychological distress, including less anxiety, depression,

anger, rumination and worry (Baer, 2003; Brown et al., 2007). Likewise, mental processes such as attention and learning (Langer & Piper, 1987), concentration (Young, 1997) and even burnout (Langer, Heffernan & Kiester, 1988) have all been shown to be positively influenced by Mindfulness. Additional benefits are self-control (Bishop et al., 2004), objectivity and flexibility (Hayes & Feldman, 2004), creativity and productivity (Passmore & Marianetti, 2007).

Mindlessness, the less 'awake' states of habitual or 'automatic pilot' functioning, may be chronic for many individuals. Thus, Mindfulness has been proven to help individuals disengage from automatic thoughts, habits and unhealthy behavior patterns and, through that, to elevate happiness in a direct way (Brown & Ryan, 2003). Interestingly, Mindfulness facilitates the development of kindness, empathy and compassion (Fulton, 2005; Wallace, 2001) and better clinical decision-making (Epstein, 1999), which is associated with emotional intelligence (Walsh & Shapiro, 2006). Davis and Hayes (2011) also found that Mindfulness predicts relationship satisfaction, an ability to respond constructively to relationship stress and conflicts, by skillfully identifying and communicating emotions. Other research suggests that people with higher levels of Mindfulness are better able to regulate their sense of well-being by virtue of greater emotional awareness, understanding, acceptance, and the ability to correct or repair unpleasant mood states (Brown et al., 2007). The ability to skillfully regulate one's internal emotional experience in the present moment, may translate into good long-term mental health, as it offers the opportunity to develop resilience in the face of uncomfortable feelings. Yet, only few studies have generated sufficient empirical evidence that links Mindfulness and the ability to cope with adversity.

2.4 Mindfulness and Resilience

Resilience embodies the personal qualities that enable one to thrive in the face of adversity (Connor & Davidson, 2003). Definitions have evolved over time, with scientific knowledge of this coping ability being found to be imperative to human well-being. Resilience is known to

be sourced through an interaction between personal, biological and environmental factors (Herrman et al., 2011). Research has demonstrated that resilience is 'a multidimensional characteristic that varies with context, time, age, gender, and cultural origin, as well as within an individual subjected to different life circumstances' (Connor & Davidson, 2003, p.76). Joseph and Linley (2006) highlighted personal factors to be personality traits (openness, extraversion, and agreeableness), internal locus of control, mastery, self-efficacy, self-esteem, cognitive appraisal and optimism. Cicchetti and Curtis (2006) demonstrated that brain changes and other biological processes might affect the capacity to moderate negative emotions, and thereby affect resilience to adversity. Lastly, environmental factors such as social support, family stability, positive peers, good schools, sports and artistic opportunities and lack of exposure to violence, were found to contribute to superior resilience (Luthar, Cicchetti & Becker, 2000).

One of the main challenges of Mindfulness practice is to establish whether individuals can cope with hardship whilst avoiding the development of any resultant physical or mental health problems. Mindfulness may offer an opportunity to develop endurance in the face of uncomfortable feelings, which otherwise might provoke a harmful response. For instance, by taking drugs or displaying violent behavior, or by becoming more depressed. Maladaptive behaviors such as aggression and procrastination may result in impulsive automatic responses to emotional distress such as anger, anxiety or boredom (Broderick & Jennings, 2012). Mindfulness is particularly suited to addressing these automatic tendencies and thus, may become an effective tool in managing emotions as they arise, thus potentially decreasing their magnitude. Conversely, to date, the relationship between Mindfulness and resilience has received very little empirical attention. One reason could be that the term resilience encompasses many of the above benefits, so it is difficult to identify whether there is indeed full impact on resilience. Recent study on the effects of Mindfulness intervention on a highly stressed working population revealed that positive coping strategies were

significantly increased (Walach et al. 2007). Furthermore, Weinstein, Brown and Ryan (2009) showed in a series of four studies on student samples that over a one-month period, Mindfulness predicted more use of approach coping and less use of avoidant coping. In contrast, Sears and Kraus (2009) found no significant pre-test to post-test changes in approach coping and avoidant coping in a Mindfulness meditation group compared with controls. Results thus far justify further exploration of the relationship between Mindfulness and resilience.

2.5 Mindfulness Interventions

Thus far, the best-known Mindfulness interventions have been Mindfulness-Based Stress Reduction (MBSR) (Kabat-Zinn, 1990) and Mindfulness-Based Cognitive Therapy (MBCT) (Segal, Teasdale & Williams, 2004). The practice of Mindfulness typically consists of initially directing attention to a specific focus, such as the breath, sensations, feelings, or any other attentional anchor (Meiklejohn et al., 2012). As one practices, it becomes apparent that the mind will repeatedly drift away from the chosen anchor into spontaneously arising thoughts, feelings, or sensations. The objective is not to get rid of these feelings, but rather, to cultivate a clearer awareness of them, by noticing whatever arises with a growing degree of acceptance. Although there are several disciplines that can foster Mindfulness by cultivating body awareness and mental clarity like Yoga, Thai-chi, or Qigong (Schure, Christopher & Christopher, 2008), the majority of empirical research has focused on Mindfulness developed by meditation. Meditation refers to 'a family of self-regulation practices that focus on training attention and awareness in order to bring mental processes under greater voluntary control' (Walsh & Shapiro, 2006, p. 228). The primary element of Mindfulness meditation is a focus on the breath. Other key elements are the ability to tune into events occurring within the body and mind, as an act of being a witness to your own personal experience. Purposeful breathing affects the autonomic nervous system, focuses the mind and increases levels of self-awareness (Davidson et al., 2003).

2.6 Challenges of Students Nowadays

Unhealthy lifestyle behaviors and mental disorders have been identified as a problem amongst students. Contemporary research conducted in the UK (Dodd, Al-Nakeeb, Nevill, & Forshaw, 2010) determined that students' lifestyles are of concern: more than 50% of participants in this research were suffering from stress, lack of physical activity, poor diet, binge drinking and smoking. Such modifiable behaviors are the main contributors to burnout, psychiatric morbidity and chronic illnesses such as cancer, diabetes and cardiovascular disease (Dodd et al., 2010), and are usually established during youth or young adulthood (Steptoe et al., 2002). A similar research conducted in the US found that almost 50% of college students met DSM-IV criteria for at least one mental disorder in the previous year (Blanco et al., 2008). Risk factors may be academic workload, relationship stressors, competitiveness, low social support and personality traits, such as perfectionism (Hunt & Eisenberg, 2010). With student population showing these signs at a younger age, appropriate treatment and prevention system is essential.

Consequently, few comprehensive integrated student well-being programs have been incorporated in the academic curriculum (Moss & Smith, 2009). Shapiro, Shapiro & Schwartz (2000) conducted a systematic review of 24 studies on stress management interventions for medical students, discussing two trials on optional MBSR programs. They found reduced levels of self-reported anxiety, psychological distress and depression, and increased levels of empathy, control, spiritual experiences, and physical health (Shapiro et al. 1998). Further research demonstrated that students trained in MBSR scored significantly lower results in mood disturbance than the control groups (Rosenzweig, Reibel, Greeson, Brainard & Hojat, 2003). Although these findings have been positive, reviews suggest that evidence is still equivocal regarding consistent effects of Mindfulness-based interventions on anxiety and depression (Toneatto & Nguyen 2007). Nevertheless, youth educators' worldwide have been turning to Mindfulness with increasing frequency. Since 2005, 14 studies of Mindfulness

training programs have collectively indicated a range of cognitive, social and psychological benefits to both elementary and high school students (Meiklejohn et al., 2012). Further, a program called 'Mindful Schools in the US' offers online Mindfulness training to teachers, instructing them how to equip children to concentrate in classrooms and deal with stress, has reached more than 300,000 students and educators in 43 countries (Fernando, 2014), which demonstrates just how important the teaching of Mindfulness to students is.

2.7 Research Questions

Recognising that almost everyone has the capacity and potential to become Mindful has opened the door to embrace many Mindfulness intervention programs, within different sectors of society. However, Mindfulness application in the academic environment is still lacking and under-researched, as universities have not fully embraced the concept. Hence, this research was first designed to assess **the Research Hypothesis (RH) that Mindfulness enhances resilience amongst university students under stress**, and after, to explore the following **Research Questions (RQs)**:

1. Is a short Mindfulness intervention effective in increasing Mindfulness of students?
2. Which benefits arise to students after a short Mindfulness intervention?
3. What are the different definitions of Mindfulness amongst students?
4. Which other factors influence Mindfulness levels of students?

CHAPTER 3 - METHODOLOGY

3.1 Research Design

The RQs were structured using a multi-method research design commonly referred as 'triangulation' (Webb, Campbell, Schwartz & Sechrest, 1966). Complementary qualitative and quantitative methods were selected, to allow a holistic interpretation, to enhance validity and to improve accuracy of judgment (Jick, 1979). Triangulation is used both (a) Across-methods - the researcher used interviews for cross-validation of questionnaires and for gaining a deeper understanding of the phenomena, and (b) Within-methods - the researcher used a selection of questionnaires to provide consistency, reliability and strong evidence for the phenomena. Moreover, due to the researcher's sensitivity to the Mindfulness intervention (being both the program's developer and facilitator) triangulation was necessary to ensure an objective interpretation. Additionally, this analysis benefited from inferences drawn from the researcher's personal experiences and firsthand observations.

To address the first three RQs, semi-structured interviews were conducted. This method was chosen to gain an in-depth understanding of the participants' beliefs, values, feelings, experiences and motivations (Lewis et al., 2011). The researcher conducted interviews approximately one week post intervention, to allow participants reflect on experiences and gain insights. Additionally, RQ4 was addressed using three different questionnaires, which enabled a reliable analysis of Mindfulness and resilience levels, both pre and post intervention. The use of quantitative methods allowed for RH testing, via examination of correlations between different variables, whilst also identifying evidence relating to cause and effect relationships.

The research design exploited two groups Pretest-Posttest (PP), to evaluate whether Mindfulness intervention enhances levels of resilience amongst university students. The first aim was to determine whether the Mindfulness intervention did indeed increase Mindfulness levels in participants. The second aim was to measure resilience levels of participants after

the intervention. Alternatives to PP were considered, but it was very clear that a control group without the Mindfulness intervention would not have any influence over resilience and would be a pointless undertaking. Furthermore, PP research design has a number of advantages over other common research designs. The Posttest Only with Control design (POWC) has participants assigned to intervention and control conditions, but participants are measured only after administration of the treatment. In quasi-experimental designs, pre-existing differences between groups could artificially inflate or obscure differences at post-test, casting suspicion on results from the POWC design (Morris, 2007). In contrast, the PP design allows the researcher to control, by pre-test assessment, any pre-existing differences, allowing for estimates of the effectiveness of intervention. Likewise, the use of repeated measurements in the PP design allowed each participant to be used as his or her own control, which typically increases the power and precision of statistical tests (Hunter & Schmidt, 2004).

The researcher facilitated and moderated 2 active intervention groups: each with 8 participants. All 16 participants completed 3 questionnaires pre and post intervention. Post intervention questionnaires were returned within 2 weeks of the Mindfulness intervention. Data was collected in a research laboratory at the LSE. Fifteen interviews were conducted, of which 3 were with male participants and 12 with female participants. Both interventions lasted 2 days with 3 hours of training per day, for a total of 2 sessions. Training for both intervention groups was developed and facilitated by the researcher, and held in June/July 2014 in a lecture room at the LSE Social Psychology Department. Both interventions followed the same timetable and curriculum, and utilised similar amounts of time allotted for lecture and practice of specific activities relating to the type of intervention. These similarities were imperative to avoid potential differences in groups.

Interventions Details:

Number of Interventions	2
Date of Interventions	1. June 26 th & June 27 th 2. June 30 th & July 2 nd
Length of Each Intervention Session	3 Hours
Pre & Post Intervention Questionnaires	3. MAAS 4. CD-RISC 5. OSU Resilience Scale
Intervention Location	LSE Classroom
Equipment Used	Projector, Laptop, Computer, Speakers, Camera, Video Camera, Audio Recorder, Refreshments
Number of Participants Per Intervention	8

3.2 Sampling and Setting

The chosen research setting was the Social Psychology Department at the LSE. The setting was selected as providing the ideal setting for effectively and cost-efficiently facilitating Mindfulness interventions. The researcher was granted full access to facilities and tools in the lecture room to maximise efficiency.

The researcher combined four types of sampling (Gioia, Price, Hamilton & Thomas, 2010): (1) purposive - the researcher chose LSE students as appropriate participants as per their suitable student profile: multinational, English speaking, high achievers and highly intelligent; (2) random - the researcher randomly contacted administrators of several Master programs at the LSE, via email or in-person, so that they would forward the Mindfulness research invitation to their students; (3) convenient - the researcher selected participants because of their availability; (4) snowball - the researcher invited first participants who had already

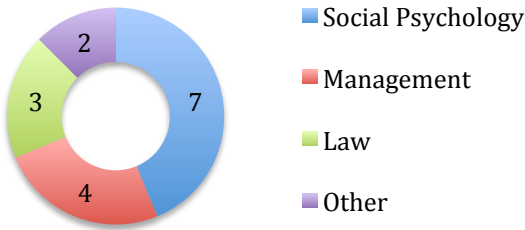
volunteered to join the research, to recruit more participants via their own contacts, so that she managed to quickly recruit twenty eligible participants. Sample size was determined small to meet academic deadlines and ensure uniformity of approach (12 is the maximum size per intervention group). However, a few days prior to the beginning of the intervention, the researcher received 4 cancellations via emails from participants so a total of 16 participants remained.

3.3 Participants

To determine whether previous encounter or affability of the intervention facilitator contributed to intervention efficacy, two groups were recruited: (1) from the LSE Social Psychology department and (2) from the LSE Management and Law departments.

Sixteen students volunteered and satisfied criteria for the study; (a) full-time students at the LSE, whether recent alumni, graduate or undergraduate, (b) a desire to participate in a Mindfulness intervention program; (c) agreeing to complete pre and post questionnaires; (d) agreeing to attend a one-on-one interview after the intervention; (e) being able to attend the 2-day Mindfulness program. Based on meeting these eligibility criteria, participants were enrolled in the research. Sixteen students completed the study: 15 graduate students and 1 undergraduate student; Mean age of 25.63, with age range of 19 to 33. Countries of origin varied from west to east: Russia, Taiwan, Egypt, Belgium, China, Germany, USA, Finland, Israel, Ireland, Norway, Denmark, Greece and Hong Kong. Research’s dropout rate was 12.5%: two participants from the second intervention did not attend the second meeting due to stress and time constrains.

Fields of Study



3.4 Procedure: Intervention

Ethical approval was obtained by the institute of Social Psychology in April 2014 and the first phase of developing the Mindfulness intervention for LSE students took place in May-June 2014 in London. 'Participant Information Sheets' (see Appendix 2) and 'Informed Consent Forms' (see Appendix 3) were sent to participants via email, which were signed and returned to the researcher prior to the intervention.

The intervention offered Mindfulness training combined with coaching techniques, as a way of developing students' resilience. It was designed as a short version (2-day) on the MBSR program (Kabat-Zinn, 1990) and Satya Coaching Method (Ben David, 2003) grounds. The program was independently developed and facilitated by the researcher between 2011-2014 and was 'tailored' to suit students' needs and constraints. Program duration and the length of each session (3-hour) were shortened due to students' feedback of time limitations of final exams and dissertation (stress period), perhaps highlighting how relevant this analysis was. Comprehensive and student-focused, this intensive Mindfulness intervention program incorporated formal Mindfulness techniques (Kabat-Zinn, 1982) such as Sitting Meditation, involving awareness to body sensations, thoughts and emotions while continually focusing attention to breathing patterns; also, Stretching Meditation - gentle stretching while maintaining attention to subtle body movements. Students also participated in unique exercises designed to cultivate Mindful listening skills and empathy such as Dancing Meditation. The researcher incorporated multiple approaches to relax the body and awaken the mind as mirroring, reflection, visualisation and guided imagination. Participants were given class handouts and exercises inspired by the 'Mindfulness Practice Guide' (Williams & Penman, 2011), as well as YouTube videos of Mindfulness meditations to facilitate practice in spare time. Thus, this intervention integrated cognitive, somatic, emotional and spiritual components to provide participants with mindset and techniques to elevate their levels of Mindfulness.

3.5 Materials: Interviews

Semi-structured interviewing was chosen as the most appropriate method, due to the flexibility it offers to small-scale research (Drever, 1995). Prior to the interviews, the researcher set up the general structure, the common grounds to be covered and the main questions to be asked (Drever, 1995). However, the detailed structure was left to be decided during the interview, to allow freedom of conversation. The researcher developed an 'Interview Topic Guide' (see Appendix 1) through open questions that invited elaboration on the research. The interview topic guide kept a chronological order and consistency of questioning, with coverage of 4-6 themes. The researcher's approach was to be respectful to participants' own experiences and to actively listen, keeping questions very focused, whilst allowing herself to be flexible and to follow up on unexpected leads. The aim was to enable participants to feel natural and safe to recount pre and post intervention experiences and to openly share genuine and relevant information.

3.5.1 Procedure: Interviews

Within 2 weeks post intervention, the researcher approached all 16 participants to arrange interviews. One participant was unavailable for interviewing. Out of the 15 interviews (N=15; Male=3, Female=12), 11 were conducted face-to-face at the LSE, 2 were conducted via Skype, and 2 at the interviewees' work place. Demographic information was obtained at the beginning of each interview. All interviews were held in English and were audio recorded. Interview time ranged from between 35 to 70 minutes. Once all interviews had been conducted, the recorded interviews were transcribed (see Appendix 5 for sample). To ensure confidentiality, transcripts were tailored to preserve anonymity. Member-checking (Seale, 1999) was used by the researcher, asking for peer feedback on her interview topic guide to ensure that the researcher was accurately depicting the participants' experiences. Each sample group was initially treated separately, to take into account possible variation.

3.5.2 Data Analysis: Interviews

The interviews were manually transcribed and analysed using Thematic Analysis (TA), as an interpretative approach to generate classifications through coding of repetitive patterns, and unearthing themes salient in the text at different levels (Attride-Stirling, 2001). TA was chosen for this research because it allows capturing the richness of the phenomena under study. This was suited to the research due to sensitive nature of topics (e.g., mental state, personal experience, difficulties).

3.5.3 Coding Process: Interviews

Transcribed interviews were coded and sub-coded only after carefully listening, reading and re-reading the texts (Rice & Ezzy, 1999). The aim of TA is to code repetitive patterns in the data in a short and essence-capturing way (Saldaña, 2009). The research codes were intended to capture the explicit and implicit messages in the data. The classical inductive approach by Zang and Wildemuth (2009) was employed; the researcher organised the data, defined the meaningful unit of analysis, developed categories and an open coding scheme, tested the coding scheme on a sample interview data, assessed coding consistency and finally coded all data. Initially, codes were converted into basic themes directly derived from the data, and next, were grouped into organising themes (see Appendix 7). At the end, global themes were identified (see Appendix 7) as 'super-ordinate themes encapsulating the principal metaphors in the text as a whole' (Attride-Stirling, 2001, p. 388). The codebook (see Appendix 6) included definitions, examples and frequencies of occurrences.

3.6 Materials: Questionnaires

The central purpose of this research was to examine empirical links between Mindfulness and resilience of university students. Questionnaires were the most convenient and effective method to examine the RH, and were utilised for triangulation of interviews. The researcher chose three comprehensive and reliable scales after she thoroughly literature search of self-

reported scales to measure Mindfulness and resilience levels. Three questionnaires were consolidated into one questionnaire (see Appendix 4) for quick and easy completion, as participants were required to complete it twice - pre and post intervention. Moreover, the researcher wanted the participants to be as honest as possible, so did not want to separate the questionnaires by implying which of the scales related to Mindfulness and which to resilience.

3.6.1 Mindfulness Attention Awareness Scale (MAAS)

Recent literature emphasises the importance of developing reliable and valid measures of Mindfulness, so that researchers can investigate the efficacy of current Mindfulness interventions. Several self-report instruments have since been developed, including the Mindful Attention Awareness Scale (MAAS) (Brown & Ryan, 2003). MAAS (See Appendix 4, table 1) is a 15-item, single factor self-report scale designed to assess one's general tendency for acceptance and attention over time (Bergomi, Tschacher & Kupper, 2013). Specifically, respondents rate the degree to which they function without awareness of present experience in daily life, covering cognitive, emotional, physical and interpersonal dimensions. Items are rated on a 6-point Likert scale (1=Almost always, to 6=Almost never). Studies highlight a high internal consistency as Cronbach's alpha range from 0.82 to 0.87, and of good test-retest reliability (Schmertz, Anderson & Robins, 2009). Consequently the original MAAS was used in this research. Total scores range from 15 to 90, with higher scores reflecting greater Mindfulness.

3.6.2 Connor-Davidson Resilience Scale (CD-RISC)

The Connor-Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003) is a 25-item, single factor self-report scale of resilience designed to measure resilience that has sound psychometric properties. CD-RISC (See Appendix 4, table 2) was drawn from a number of sources as being reliable, so that its items reflect action orientation, self-confidence,

adaptability, responsibility, humor in the face of stress and previous experiences of success - all being part of its analysis of resilience. Items are rated on a 5-point Likert-type scale (0 = Not at all true to 4 = True nearly all of the time). Total score range from 0 to 100, with higher scores reflecting greater resilience. At a Cronbach's alpha of 0.89 (Connor & Davidson, 2003), the original CD-RISC scale used in this research demonstrates good internal consistency.

3.6.3 Ohio State University Resilience Scale (OSU)

For triangulation and reinforcement purposes, an additional resilience scale was added to the questionnaire. This scale was chosen as a contemporary scale (2014) that complements the CD-RISC, without causing repetition of items (majority of existing resilience scales have overlaps with CD-RISC). OSU (See Appendix 4, table 3) is a 22-item, single factor self-report scale designed to assess one's resilience (Malarkey, Prabu & Zautra, 2014). Items are rated on a 5-point Likert-type scale (0 = Never to 4 = Very frequently). Total score range from 0 to 88, with higher scores reflecting greater resilience.

3.6.4 Procedure: Questionnaires

The comprehensive questionnaire was sent to participants via email. All 16 participants returned it to the researcher after completing it either manually or electronically. In an attempt to control for socially desirable responding, respondents were asked to answer according to what 'really reflects' their experience rather than what they think their experience should be. When complete questionnaires were obtained, the researcher used Excel sheets to calculate the scores, re-checking all calculations by calculator.

3.6.5 Data Analysis: Questionnaires

Data analysis consisted of 4 parts. Prior to RH testing, RQ1 was examined using 'Paired T-Test of Means', comparing MAAS questionnaires pre and post intervention. This was

conducted to evaluate whether short Mindfulness intervention is effective in increasing the Mindfulness levels of participants. Second, RH was examined using 'Paired T-Test of Means', comparing CD-RISC and USU questionnaires pre and post intervention. This was conducted to evaluate whether resilience levels have increased post Mindfulness intervention. Third, correlations were conducted, to examine any existing relationships between Mindfulness and resilience scales, and to compare these pre and post intervention. Fourth, multiple linear regressions were conducted, to examine RQ4 of which other factors influence Mindfulness levels of students. T-tests of means, correlations and regression tests were conducted using SPSS software. Cohen's d and effect size were calculated using the following link: <http://www.easycalculation.com/statistics/effect-size-t-test.php>. Each sample group was initially treated separately and, after confirming that there were not extreme group differences, the two groups were consolidated into one sample.

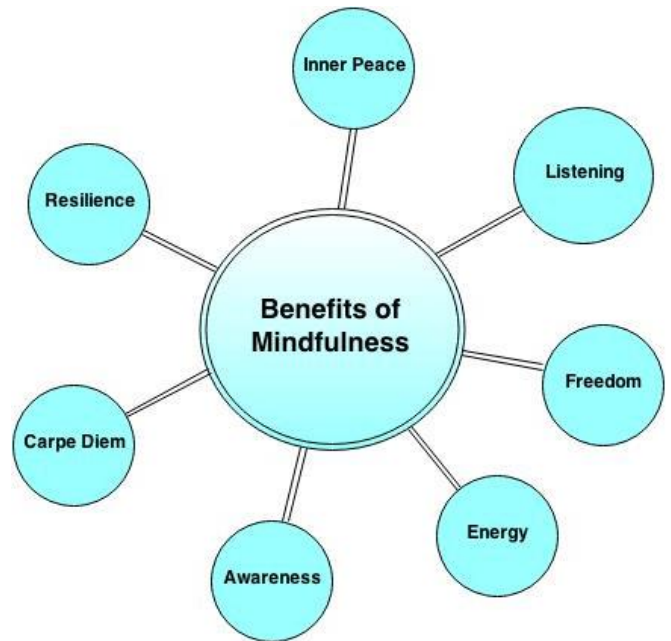
CHAPTER 4 - RESULTS

4.1 Qualitative Analysis of Interviews

The aim of the qualitative analysis was to address RQ2 and RQ3. The researcher cited participants with numbers (e.g., Participant 4 = P4) rather than initials, to maintain confidentiality and privacy of participants and to avoid name recognition of group members (small sample size). The researcher identified 4 global themes and 19 organising sub-themes, which have been presented by their frequency of occurrence, in descending order (including Thematic Networks):

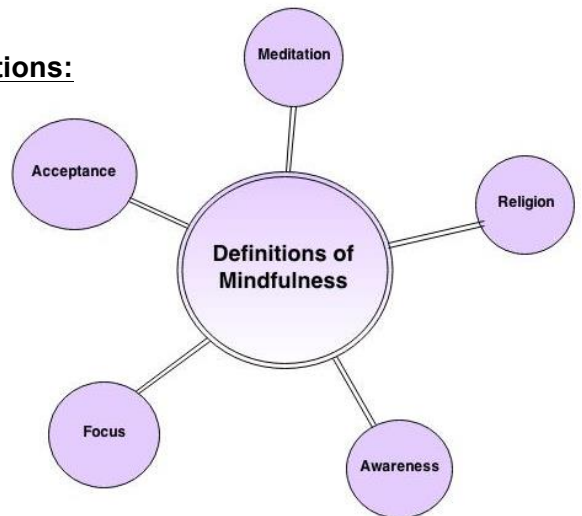
1. Global Theme 1 - Benefits of Mindfulness:

- 1.1. *Carpe Diem*
- 1.2. *Inner peace*
- 1.3. *Resilience*
- 1.4. *Awareness*
- 1.5. *Freedom*
- 1.6. *Listening*
- 1.7. *Energy*



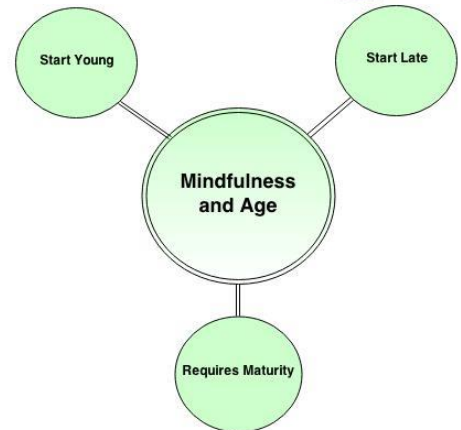
2. Global Theme 2 - What is Mindfulness? misconceptions:

- 2.1. *Awareness*
- 2.2. *Meditation*
- 2.3. *Focus*
- 2.4. *Acceptance*
- 2.5. *Religion*



3. Global theme 3 - Mindfulness and Age

- 3.1. *Start Young*
- 3.2. *Requires Maturity /Not Age-Specific*
- 3.3. *Start Late*



4. Global theme 4 - Mindfulness and Culture

- 4.1. *Collectivism*
- 4.2. *Individualism*
- 4.3. *Openness*
- 4.4. *Suppression*



4.1.1 Global Theme 1 - Benefits of Mindfulness

The most significant and recurring theme in all 15 interviews was the eye-opening, transformative experience of this intervention, the role of Mindfulness in participants' psychological well-being and their gratitude for introducing this tool:

'I've been telling many people about this experience because for me it was transformative. I could see the change in myself.'(P12)

Sub-theme 1 - Carpe Diem

Rumination, Depression & Intolerance of Uncertainty

Not surprisingly, ruminating with participants conjured up more negative thoughts and gave rise to a vicious cycle. Mindfulness helped participants to learn how to be present in the moment, to observe thoughts rather than identify with them and to focus on breathing rather than re-living the past:

'I have a tendency to dwell in the past...Just to think about where things haven't gone right, what went wrong and go over it and over and over... Mindfulness helps with that.' (P16)

'I am really imaginative; it's very easy for me to conjure up situations in my head. I conjure up about 50 in the space of 5 minutes - such an energy drain.' (P3)

Intolerance of uncertainty or pre-living the future is also described as an important cause of anxiety with participants:

'It's a bit daunting to think about the not-so-near future.' (P10)

The problem seems to be caused both by internal and external stresses, related to academic pressure from LSE as a competitive school, as well as living in London, a demanding city:

'Working on business plans and financial forecasts, I'm always thinking about the future, based on my past, so I've never really lived in the present. I just realised how the LSE also pushes us to think so much about the future.' (P12)

Mindfulness proved to combat this pattern by focusing on the present moment, enjoying oneself and increasing awareness of their body. One participant even miraculously declared recovery from depression:

'Up until I come to the workshop I was depressed. I was first diagnosed about 2-3 years ago and things didn't really improve over the years. For me, it's depression and fear at the same time. What really got me out of this depression cycle was the dancing exercise. I was as happy as I haven't been for 10 years, just being in the moment there. My optimism is now back; my energy level is 80% back; it really made me realise what I lost and who I am. I'm getting back to it.' (P7)

Acceptance & Appreciation

Participants related to Mindfulness as the understanding of their inner state transformed into actions, as well as making peace with their past and accepting present reality as is. This acceptance affected participants' relationship with themselves and with those close to them:

'I experienced some hard things in my life and throughout the start of this semester, so slowly being able to accept those wins from my past and move on, but still acknowledging them as happening.' (P3)

'With the guy I'm dating, I am now more confident of the relationship, and trusting, so that I don't push him. This week I am a more easy-going, taking things one at a time and living in the present. I really try to enjoy every moment now and not think about what will happen.' (P12)

Nevertheless, Mindfulness was also associated with enhancing enjoyment of present moments, appreciating life experiences and re-connecting with nature:

'Now I come to work with a smile. I stop to buy myself coffee, go with it to work. I never did it before. Now, I enjoy the way. I enjoy those moments we have.' (P2)

'For me, the most important change is that I stopped concentrating on negatives and started appreciating what is around. It's amazing feeling when you stop complaining and mourning and you start noticing things.' (P6)

Productivity & Effectiveness

Participants elaborated on the high levels of stress whilst studying and the need to manage their time and efforts more efficiently. Mindfulness has been described to elevate productivity and effectiveness levels of participants, and to reduce procrastination:

'I procrastinate a lot... so good at procrastination. It's so bad. I made so many Excel models for our rent.' (P10)

'One of the biggest challenges here is managing time. Being able to both work and rest effectively. I think Mindfulness can help us put more attention into being: when you're in school, you're mindful about that. When you have time off, you're mindful about that. You can do more, go 100% into whatever you're doing, whether that's rest or it's work.'(P4)

Sub-theme 2 - Inner Peace

Stress & Anxiety Reduction

During the intervention, participants opened up and exposed a worrying reality. Many of them suffer from high stress, transformed into in panic attacks, nausea, brain fog and physical sickness, which often resulted in hospitalising:

'I am the most anxious person on earth. I was scared of doing exams, I was in the hospital a few times from stress. Vertigo. I was dizzy some times, but in a quietest severe way. I couldn't even sit or stand because I would fall. A lot of panic attacks and fainting.' (P2)

'When I get stressed about something, I'll start feeling sick. Remember how nauseous I was? I remember you asked me to wait in the room and I couldn't even remember - where is the room? Brain fog. I couldn't think straight, felt extremely sick.' (P3)

Participants ascribed Mindfulness, and particularly meditation, to create a relaxed state, by reducing stress, worry and anxiety. Many participants praised the power of meditation:

'Yesterday I could fully relax. Nothing really occupied my mind. I just felt much more, like something is off me - maybe my burden was off me.' (P12)

'Especially on the meditation during the second day.... I felt I was completely relaxed, so I fell on the floor.' (P6)

Life Balance

Mindfulness helped participants to identify the imbalances in their lives, especially through the reflection exercises, which mirrored participants with certain features of themselves that feeds into this inability to sometimes balance their life:

'I definitely know that that's an issue that I'm not balanced in terms of what you would call the depleting and the nourishing activities in my life.' (P4)

'Working so hard and getting very intense job, sometimes you forget about yourself and about your life... this is completely imbalanced... Now I'm just going to decrease my life pace, to increase the quality of life... to be much happier.' (P2)

Mindfulness also helped participants become more patient and enjoy the process of things, rather than chasing goals and fast results:

'Sometimes you don't enjoy the way, you want to get there. "What's Mindfulness? Yeah, give it to me, I want it now. I want it fast. I want to see how it is. I want to be Mindful." It's just like rushing.' (P2)

'Appreciating nature is very important to me. The workshop served as a reminder. When I now cycle to LSE and back home, I just take the speed down and take it in.' (P8)

Compassion & Empathy

The research shows that Mindfulness increases empathy and compassion both for others and for participants themselves, and that such attitudes are good for them. They affirmed that they also experienced an enhanced forgiveness in relationships/break-ups and a reduced ego in business relationships:

'Yesterday I was actively telling myself that "if you want the best for the organisation, you need to take away your ego. Just focus on the bigger picture and let them take some credit, even though you think they don't deserve it".' (P12)

Additionally, the group setting reminded participants that they are not alone:

'Yeah I'm not the only person who's in this misery.'(P13)

Sub-theme 3 - Resilience

Gaining Control

Many participants started to gain control over their life by speaking out and standing up for themselves:

'I did do one thing. I put in two complaints over things that I would normally just leave and wouldn't do anything about, but go home and be annoyed for five hours. Now I'm happier... It's strange because nothing externally has really changed, but I feel better about having stood up for myself.' (P4)

'My husband planned his business trip on my birthday so I initially got offended because of my pride... but instead I spoke openly, because I'm accepting my feelings as well. He understood why, and it made dialogue easier. I am just not keeping it inside myself anymore and doing the bright face.' (P6)

This ability to speak-out and to voice feelings was also expressed in the interviews as an ability to set boundaries and say 'No' when it does not feel right:

'Being able to identify what this is frustrating me, and the need to have a serious conversation about, create some boundary. Being able to say no.' (P4)

Participants also marvelled at their ability to speak out and seize the moment and not regretting missed opportunities:

'I am more aware of how important certain moments are. At the end-of-year party - there was no protocol or necessity to make a speech. I just felt that in that specific moment, everybody involved would appreciate if the students voiced an opinion about how that year has passed. I felt that I shouldn't let this moment pass.' (P8)

Self-Belief

Mindfulness has been expressed to help with building participant self-belief and confidence:

'I always knew I had low self-confidence, but the workshop was an eye opener in terms of this' (P3)

'The workshop made me more confident and have a bit more belief in myself. Yeah. That was a positive thing for me.' (P10)

Participants mentioned they are heavily influenced by their fears of academic failure, of being bored or alone and mostly of not finding a job. Mindfulness has provided them with tools to combat these fears:

'If you want to be self-employed, just believe in it, and then try it out, instead of being so worried all the time. Don't saying to yourself: "I need this job with a fixed payment".' (P1)

'People are afraid of what they might find if they face themselves and take a minute to not do anything, just be present. Especially now that everyone is so distracted, always on their phones.' (P16)

Self-Discipline

Mindfulness also reminded participants of the importance of self-discipline in their daily life:

'By being responsible for myself, I'm now more responsible for other people, as I'm slowly much better in keeping up with my timetable.'(P7)

'I think discipline is hard nowadays because we are bombarded with ads and see sugar and unhealthy food everywhere, and it's also cheaper. I just told myself I want to be more disciplined.' (P16)

Sub-theme 4 - Awareness

Stop Autopilot

Participants became more aware of their autopilot mechanisms, habitual patterns, addictions and 'robotic' behaviour. Mindfulness served as an effective tool to combat these, and started making more conscious choices:

'I'm a robot. I'm one of those robots in the tube... life drags me into a path that you become one of those ...I call it robots because I started noticing.' (P2)

'Realising when the things that I'm doing are wearing me out, instead of building me up. Sometimes I push myself a little too far, and I end up in a very frustrated state.' (P4)

LSE was described to foster this autopilot mechanism due to its competitive nature:

'People are so on autopilot at the LSE. Once they come to the LSE, they are really thrown into the banking consultancy group, and sometimes when you have a conversation, you feel like they don't really think. They are kind of mainstream.' (P16)

Astonishingly, Two participants either quit or reduced smoking as a result of the workshop:

'After the workshop I decreased massively the amounts of cigarettes. It's still a process. I'm eliminating more and more.'(P2)

Observing Thoughts

Participants praised Mindfulness as an incredible tool to observe thoughts in real time, and fight the negative ones:

'I think one thing that really appeals to me in the workshop is the fact that you don't internalise your thoughts.' (P4)

'Mindfulness helps you to see the big picture and observe what's happening without getting too attached. Then you can make a more objective decision.' (P10)

This self-reflection tool helped participants to discover/re-discover themselves:

'I couldn't really evaluate myself prior to the workshop' (P4)

Awareness of Surroundings

Two participants stopped bumping into things after the intervention by not being preoccupied with thoughts:

'Before the workshop I used to be so clumsy, and I would just bump into things and hurt myself... Now I'm just more focused.' (P7)

Sub-theme 5 - Freedom

Free of Self-Criticism & Judgment

Many participants described being harsh and judgmental on themselves and on others:

'I'm very harsh on myself. I cannot even describe how harsh I can be. I don't know why. It has been like this forever that I want everything to be perfect; I want to be portrayed in a very good way. (P2)

'I think studying at the LSE would have been slightly different if I learned Mindfulness before...so many hours spent in the room just punishing ourselves for not studying.'
(P1)

This self-judgement was often associated with avoidance:

'When I'm running behind schedule, I feel guilty. What I would do sometimes is just delay the response, because I am trying to run away from my mistake.'(P7)

Mindfulness enabled them to take a step back, reassess the situation with acceptance, take responsibility and forgive themselves if something didn't go as anticipated:

'Now, even if I'm 5 minutes late, I realise it's only 5 minutes - it's ok. And then I notify the other person.'(P7)

Free of Expectations

Participants exposed constant expectations from their family members, friends, and partners, often creating high stress, depression and anxiety:

'With a past relationship I was sometimes very succumb to social pressures about what is considered normal and how a relationship should evolve... I wish that I would have been a little bit more Mindful and listen more to my own thoughts and been a bit more present.'(P16)

'I love my family. They give a lot, and they demand a lot. I made myself feel bad because I've tried to always meet their expectations.' (P4)

Sub-theme 6 - Listening

Listen to your Body

After the intervention, participants started to be more attentive to their bodily sensations that are directly linked to their emotional state:

'It reminds me when I was a kid, instead of crying, I would laugh. I'd love to delve into that.' (P3)

'Wednesday night I was very tired and friends were asking me if I wanted to go to the pub. Normally, I would always go: I love seeing them and also for not missing out... I eventually said: "It was nice...but I'm going to sleep".' (P5)

'Mindfulness made me more assertive toward my friends - to take a break outside the research lab, or a break every few hours.' (P8)

Also, to inquire bodily craves and reactions in given situations and respond appropriately:

'Yesterday I was so tired - I was just thinking to get some cookies, and then I realised: no, I crave for sugar because I am tired. Let me get a nap for like 30 minutes.' (P1)

Listen to your Gut

Moreover, participants started recognising and following their gut instincts:

'We all have gut feelings but if we often don't take the time to be Mindful and listen to them - it's easy to just ignore them, right?' (P16)

Listen to your Environment

Participants practiced active listening in the workshop, which enhanced their ability to listen to the surrounding:

'I noticed I became a better listener... I have people coming over to me; I enjoy listening to them; asking about how they are; I have this energy inside that I can spend on these interactions.' (P6)

Sub-theme 7 - Energy

Depleting vs. Nourishing Activities

Participants complained of fatigue, burn out and exhaustion. Practicing Mindfulness made them understand that tiredness is a common side effect of stress. Further, Mindfulness gave

them the awareness to revise their schedule, get more rest, and investigate uncomfortable feelings. What naturally followed was a sense of freedom and joy, which are also energy-producing states of mind:

'I didn't expect to learn about the illusion of time: whether you have a 7-hour nap or you wake up at 4pm, 9am, it doesn't matter. All that matters is your energy level. That's what dictates you' (P3)

'I was quite tired in the beginning, but going through the first day I left with more energy than I came in. I left more refreshed and more with a clear mind.' (P6)

4.2 Global Theme 2 - What is Mindfulness?

All participants were asked what they thought Mindfulness was prior to the intervention. Initially, participants had a vague idea of Mindfulness:

'I just thought if BBC is covering it, it is getting pretty important, I guess.'(P16)

Definitions of Mindfulness differed among participants who articulated many misconceptions:

Misconception 1 - Mindfulness = Awareness

'For me it was noticing what happens around you, and noticing what you experience.'
(P6)

Misconception 2 - Mindfulness = Meditation

'I knew it was something to do with meditation and trying to be present.' (P16)

Misconception 3 - Mindfulness = Focus

'I knew that it had to do with your ability to focus on something.' (P4)

Misconception 4 - Mindfulness = Acceptance

'To reconnect and try to accept and slowly decrease the barriers that I've put between my instinct and my rational mind.'(P5)

Misconception 5 - Mindfulness = Religion

'I think it's a concept... like religion, a pray, so it's all parts of a bigger philosophy of life.'
(P6)

4.1.3 Global Theme 3 - Mindfulness and Age

Sub-theme 1 - Start Young

Participants supported the idea of introducing Mindfulness to students at a young age. Specifically, to influence healthy brain development, to enhance resilience and ability to cope with changes and to teach them techniques to deal with stress, anxiety and depression:

'If I learned Mindfulness earlier, I would keep in mind why I chose to come to London, and focus all my attention on these goals rather than on my difficulties.' (P12)

Sub-theme 2 - Requires Maturity/Not Age-specific

Participants associated the ability to be Mindful with maturity rather than age, and mentioned the fear of being alone without constant distractions of modern society:

'I think it has to do with another sense of maturity... You would have to care about yourself. I don't think that has to do with age.' (P4)

Sub-theme 3 - Start late

Participants related to discipline, lower stress and responsibilities as possible difficulties in starting young:

'I think it's going to be difficult for younger people to engage with it because it's about discipline and the ability to pull your attention in and not be distracted by the excitement of things around.' (P11)

'Convincing people that Mindfulness is good for them is harder if the general stress level in your life is low... If you're an undergrad, you don't have so much stress.' (P4)

4.1.4 Global Theme 4 - Mindfulness and Cultural Diversity

Sub-themes 1&2 - Individualism vs. Collectivism

Mindfulness was described particularly relevant for Western cultures, because of their frantic lifestyle yet the escalating focus on individual's emotional well-being. However, Collective cultures were found to allocate less time for personal development, focusing more on society, professional development and financial status:

'In China they are telling them: "You should first think of your country, then of your society, your family, and only then of yourself, which comes last".' (P14)

'Eastern people are shy and tend to have higher self-judgment than Westerns, because they focus more on social acceptance.' (P14)

'All of a sudden you might be feeling something different that pressure...so there might be guilt involved, too.'(P11)

Sub-themes 3&4 - Openness vs. Suppression

Openness is vital to the success of Mindfulness interventions in order to develop the emotional awareness and attention to emotions that may rise at any given moment:

'Regardless of who you are externally, you need to be open and interested.'(P10)

Western people were portrayed as open, but only up to a point, since some emotions can prove signs of weakness. Eastern people were portrayed as suppressed, but only up to a point:

'People often have this impression that Asians are very difficult to open up, which is true. But once you're good friends with them they open up so quickly.' (P12)

4.2 Quantitative Analysis of Questionnaires

4.2.1 Paired T-Tests of Means

Mindfulness levels

Appendices 9 and 11 demonstrate the first part of the analysis, which confirmed the RQ1 that a short Mindfulness intervention is effective in increasing Mindfulness of students: The change in mean score from the MAAS pre intervention (M=58.44, SD=8.648, N=16) to post intervention (M=63.5, SD=7.933, N=16) determined a significant ($p < 0.01$) increase (+5.063) of Mindfulness levels of participants ($t = -3.561$, $p = 0.003$, two tailed). The paired sample correlation was 0.768, with Cohen's $d = -1.84$, and a medium effect size of $r = 0.67$. To examine RQ4, the influence of age as a predictor of Mindfulness levels (dependent variable = MAAS score pre intervention) was analysed with regression (ANOVA), which determined a non-significant prediction of $F = 4.44$, $p = 0.054$.

Resilience levels

Appendix 9 demonstrates the second part of the analysis, which confirmed RH that Mindfulness enhances resilience amongst students: The change in mean score from the CD-RISC pre intervention (M=69.38, SD=8.405, N=16) to post intervention (M=74.31, SD=8.569, N=16) determined a significant ($p < 0.01$) increase (+4.938) of resilience levels of participants ($t = -3.271$, $p = 0.005$, two tailed). The paired sample correlation was 0.747, with Cohen's $d = -1.69$, and a medium effect size of $r = 0.65$. In addition, no correlations were found with culture or age (RQ4). The change in mean score from the OSU pre intervention (M=63.13, SD=8.098, N=16) to post intervention (M=67.25, SD=8.185, N=16) determined a significant ($p < 0.01$) increase (+4.125) of resilience levels of participants ($t = -4.434$, $p = 0.000$, two tailed). The paired sample correlation was 0.896, with Cohen's $d = -2.29$, and a medium-large effect size of $r = 0.75$. In addition, no correlations were found with culture or age (RQ4).

4.2.1 Correlations and Regressions

Appendix 10 demonstrates the third part of the analysis produced one moderate correlation ($r=0.362$) between Mindfulness (MAAS) and resilience (OSU) pre intervention, but one significantly ($p<0.05$) strong correlation of $r= 0.554$ ($p=0.026$, two tailed) between the different pre intervention resilience scales (CD-RISC and OSU). Pearson correlation increased its significance ($p<0.01$) to $r=0.663$ ($p=0.005$, two tailed) post intervention. An increased pre-post-intervention correlation between resilience scales reinforces our RH that resilience levels of participants have indeed increased after the intervention.

Appendix 11 demonstrates the fourth part of the analysis did not find a significant predictive relationship either between age and Mindfulness or between culture and Mindfulness (RQ4). The regression model with age as a predictor to Mindfulness levels post intervention produced $R=0.491$, and on ANOVA produced $F(1, 14) = 4.445$, $p=0.054$ (nearly significant), implying that there is no significant evidence that older students are expected to have higher Mindfulness levels pre intervention.

CHAPTER 5 - DISCUSSION

5.1 Discussion of findings

Current research suggests preliminary evidence of the psychological and additional benefits Mindfulness offers to university students. Analyses of interviews and questionnaires confirm HR that Mindfulness enhances resilience of students: post intervention resilience scores were significantly higher. Yet, no significant correlations were found between Mindfulness and resilience scores. Qualitative interviews reveal additional psychological benefits such as decreased ruminations, depression, stress, and 'autopilot' behaviours, as well as increased acceptance, self-awareness, energy, self-belief and freedom. This is consistent with current research (Nolen-Hoeksema, Wisco & Lyubomirsky, 2008) that shows the benefits of attending Mindfulness interventions, decreasing the avoidance mechanisms (e.g., binge drinking/eating, smoking) designed to successfully cope with adversity and draw out

ruminations. Literature review and qualitative interviews reveal a worrying reality with regards to students' stress levels, emotional well-being and unhealthy lifestyles, which may also explain research dropout rates. Paradoxically, Mindfulness could have prevented these dropouts, which were associated with stress. Future research may further investigate these benefits and expand the evidence-base for short Mindfulness interventions.

Qualitative interviews reveal misconceptions of Mindfulness in the student's realm, in accordance to the reviewed literature, mainly defined as awareness and meditation. While Mindfulness is a complex concept, it is becoming a buzzword that is being thrown around throughout the media without true understanding. Future research may further explore the development of this phenomenon in an attempt to promote accuracy of definitions. Qualitative interviews consider age and culture to influence the factors that Mindfulness interventions can eradicate or at least help control, before they become out of control. In contrast, quantitative questionnaires did not corroborate these patterns. Future research with larger sample groups can further examine these patterns in the context of short Mindfulness interventions.

5.2 Reflexivity and Ethics

Reflexivity called for the researcher to be sensitive to how her personal, ideological, and social positions, which might influence data collected and interpretation they offered (Alvesson & Sköldberg, 2009). The researcher was also aware that participants might act differently or be uncomfortable to share real experiences, as she was facilitating both interventions and interviews. The researcher combated this via *triangulation* of quantitative methods and by taking videos, audios and photos in the field, to ensure that the researcher did not let any bias obscure actual experiences and results. *Member-checking* was employed by asking for feedback on the interventions. Additionally, group variances were examined prior to consolidation of the two groups into one sample, to determine whether factors as fields so study or familiarity with researcher have influenced results. Last, to evaluate the

robustness and trustworthiness of the TA, the researcher examined four criteria (Lincoln & Guba, 1985): *Credibility* - achieved via *triangulation* and *member-checking*; *Transferability* - was partially achieved by *member-checking* due to limited time frame, number of participants and the specific community (see below: generalisability); *Confirmability* - was achieved via research design - video, audio recorder, photo; *Dependability* - was achieved by following the classic coding approach.

The first measure taken to ensure that there were no ethical concerns was the requirement of all participants to thoroughly read the Participant Information Sheet (see Appendix 1) and to sign a Consent Form (see Appendix 2). These documents informed them about their rights for confidentiality, anonymity and their choice to terminate participation at any time. Secondly, field notes did not mention names or identities of participants. Gathered data (e.g., video, audios, and photos) were kept safe by the researcher during the full research process, so that no other individual could have access to this information besides the LSE research team. Videos and audios were erased from the researcher's camera after downloading them. The consent forms, transcribed documents and photos were stored anonymously in a password-protected file on the researcher's laptop. Finally, the researcher and her supervisor's contact details were provided to participants in case of questions or concerns before, during and after the research.

5.3 Limitations and Implications

While results provide significant support for RH, RQ1, RQ2 and RQ3, there are still several limitations to consider. This research may demonstrate lack of *Generalisability* (Marshall, 1996) due to the small sample of solely LSE students, among them 75% female and 44% Social Psychology students. While this research did not demonstrate 'empirical generalisability', it did demonstrate 'theoretical generalisability' in relation to relevant and current literature. It may be also difficult to generalise from a population of students who voluntarily chose to enrol in a Mindfulness program. Future research may consider offering

Mindfulness programs as part of a broader student curriculum. Considering also the approx. 7-day follow-up period, it cannot be concluded that these short-term changes will provide long-term benefits, often referred as the '*Afterglow Effect*' (Hassed, De Lisle, Sullivan, & Pier, 2009). However, the timing of this research would counts for lower mental health of students (under stress) therefore could reinforce findings. Future research may incorporate subsequent follow-up sessions and provide one-on-one coaching: '*we need to re-visit these issues and explore more with a coach or with you... to help us take some of the principles more to heart.*'(P4)

Additionally, transformation of participants could be attributed to their awareness - the '*Placebo Effect*'. Though, it might also be viewed as part of the healing process that should not be eliminated (White, Tursky & Schartz, 1985). To properly investigate this, future research may use a placebo control group, excluding the term 'Mindfulness'. Likewise, all research measures were self-report. It is mildly possible that students wanted to please the researcher, and thus answered self-report measures accordingly. Future research may include also a psychiatric evaluation of participants. Additional limiting factors could be group dynamics, facilitator performance and the group variations: '*our group was so supportive and generally I'm not sure it would work in one-to-one setting - would be very different environment and very different findings*' (P6). Further, not having a control group may also be a potential methodological weakness of this research.

To conclude, in spite of the above stated methodological limitations, the current research suggests that a short Mindfulness intervention enhances resilience of university students under stress and may help to alleviate a variety of mental health problems and improve psychological functioning. This research also suggests that Mindfulness is often misinterpreted thus comprehensive distribution of Mindfulness knowledge is required. Factors such as age and culture are associated with Mindfulness levels, but further comprehensive and larger-scale research is still needed to clarify the nature of these issues.

REFERENCES

- Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: New vistas for qualitative research*. Sage.
- Attride-Stirling, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative research*, 1(3), 385-405.
- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical psychology: Science and practice*, 10(2), 125-143.
- Ben David, N. (2012). *Transformational Conversation Satya Method*. Tel Aviv: Emotion.
- Bertenthal, B. I., & Fischer, K. W. (1978). Development of self-recognition in the infant. *Developmental Psychology*, 14(1), 44-50.
- Bergomi, C., Tschacher, W., & Kupper, Z. (2013). The assessment of mindfulness with self-report measures: existing scales and open issues. *Mindfulness*, 4(3), 191-202.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., ... & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical psychology: Science and practice*, 11(3), 230-241.
- Black, D. S. (2009). A brief definition of mindfulness. *Behav Neurosci*, 7(2), 109.
- Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olsson, M. (2008). Mental health of college students and their non-college-attending peers: results from the National Epidemiologic Study on Alcohol and Related Conditions. *Archives of general psychiatry*, 65(12), 1429-1437.
- Bodhi, B. (2000). *A comprehensive manual of Adhidhamma*. Seattle: BPS Pariyatti.
- Broderick, P. C., & Jennings, P. A. (2012). Mindfulness for adolescents: a promising approach to supporting emotion regulation and preventing risky behavior. *New directions for youth development*, 2012(136), 111-126.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of personality and social psychology*, 84(4), 822-848.
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, 18, 211-237. doi:10.1080/10478400701598298
- Cahn, B. R., & Polich, J. (2006). Meditation states and traits: EEG, ERP, and neuroimaging studies. *Psychological bulletin*, 132(2), 180.
- Caruso, D. R., & Salovey, P. (2004). *The emotionally intelligent manager*. HB printing. USAF.
- Cicchetti D., Curtis W.J. (2006). The developing brain and neural plasticity: implications for normality, psychopathology, and resilience. *Developmental psychopathology*. 2(2), 1-64. New York: Wiley & Sons.

- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor - Davidson resilience scale (CD - RISC). *Depression and anxiety*, 18(2), 76-82.
- Dalai Lama, XIV. (1999). *Ancient wisdom, modern world: Ethics for a new millennium*. London: Little, Brown
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., ... & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic medicine*, 65(4), 564-570.
- Davis, D. M., & Hayes, J. A. (2011). What are the benefits of mindfulness? A practice review of psychotherapy-related research. *Psychotherapy*, 48(2), 198.
- Dodd, L. J., Al-Nakeeb, Y., Nevill, A., & Forshaw, M. J. (2010). Lifestyle risk factors of students: a cluster analytical approach. *Preventive medicine*, 51(1), 73-77.
- Drever, E. (1995). *Using Semi-Structured Interviews in Small-Scale Research. A Teacher's Guide*.
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self awareness*.
- Epstein, R. M. (1999). Mindful practice. *Jama*, 282(9), 833-839.
- Farb, N. A., Segal, Z. V., Mayberg, H., Bean, J., McKeon, D., Fatima, Z., & Anderson, A. K. (2007). Attending to the present: mindfulness meditation reveals distinct neural modes of self-reference. *Social cognitive and affective neuroscience*, 2(4), 313-322.
- Fernando, R. (2014, January 25). *Mindful Schools Featured in TIME Cover Story*. Retrieved from <http://www.mindfulschools.org/uncategorized/mindful-schools-featured-in-time-magazine-cover-story/>
- Fulton, P. R. (2005). Mindfulness as clinical training. In C. K. Germer, R. D. Siegel, & P. R. Fulton (Eds.), *Mindfulness and psychotherapy*, 55-72. New York: Guilford Press.
- Germer, C. (2004). What is mindfulness?. *Insight Journal*, 22, 24-29.
- Germer, C. K., Siegel, R. D., & Fulton, P. R. (2005). *Mindfulness and psychotherapy*. New York: Guilford Press.
- Gioia, D. A., Price, K. N., Hamilton, A. L., & Thomas, J. B. (2010). Forging an identity: An insider-outsider study of processes involved in the formation of organizational identity. *Administrative Science Quarterly*, 55(1), 1-46.
- Goldstein, J. (2002). *One dharma: The emerging western Buddhism* (p. 224). Harper SanFrancisco. <http://www.harpercollins.com/hc/home.asp>
- Hanh, T. N. (1976). *Miracle of Mindfulness*. Boston: Beacon.
- Hassed, C., De Lisle, S., Sullivan, G., & Pier, C. (2009). Enhancing the health of medical students: outcomes of an integrated mindfulness and lifestyle program. *Advances in health sciences education*, 14(3), 387-398.

- Hayes, A. M., & Feldman, G. (2004). Clarifying the construct of mindfulness in the context of emotion regulation and the process of change in therapy. *Clinical Psychology: science and practice*, 11(3), 255-262.
- Hedges, D. W., & Woon, F. L. (2010). Alcohol use and hippocampal volume deficits in adults with posttraumatic stress disorder: A meta-analysis. *Biological psychology*, 84(2), 163-168.
- Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience?. *Canadian Journal of Psychiatry. Revue canadienne de psychiatrie*, 56(5), 258-265.
- Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health*, 46(1), 3-10.
- Hunter, J. E., & Schmidt, F. L. (2004). *Method of meta-analysis: Correcting error and bias in research findings (2nd ed)*. Thousand Oaks, CA: Sage
- Isaacson, W. (2011). *Steve jobs*. JC Lattès.
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, 602-611.
- Joseph, S., & Linley, P. A. (2006). Growth following adversity: Theoretical perspectives and implications for clinical practice. *Clinical psychology review*, 26(8), 1041-1053.
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General hospital psychiatry*, 4(1), 33-47.
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Delacourt.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: past, present, and future. *Clinical psychology: Science and practice*, 10(2), 144-156.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Sage.
- Langer, E. J., & Piper, A. I. (1987). The prevention of mindlessness. *Journal of Personality and Social Psychology*, 53(2), 280.
- Langer, E. J., Heffernan, D., & Kiester, M. (1988). Reducing burnout in an institutional setting: An experimental investigation. *Unpublished manuscript, Harvard University*. Cambridge, MA.
- Lewis, P., Newburn, T., Taylor, M., McGillivray, C., Greenhill, A., Frayman, H., & Proctor, R. (2011). *Reading the riots: investigating England's summer of disorder*.
- Lincoln, Y. S., & Guba, E. G. (1985). Establishing trustworthiness. *Naturalistic inquiry*, 289, 331.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, 71(3), 543-562.

- Malarkey W.B., Prabu D., Zautra A.J., (2014) A Resilience Measure for the Prediction and Management of Health Symptoms. *Journal of Psychosomatic Research*. [http://www.ircimh.org/local/uploads/content/files/Mental%20Health%20Outcome%20Measures%20scales2014_4_29kk\(1\).pdf](http://www.ircimh.org/local/uploads/content/files/Mental%20Health%20Outcome%20Measures%20scales2014_4_29kk(1).pdf)
- Marlatt, G. A., & Kristeller, J. L. (1999). *Mindfulness and Meditation*.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family practice*, 13(6), 522-526.
- Martin, J. R. (1997). Mindfulness: A proposed common factor. *Journal of Psychotherapy Integration*, 7, 291–312.
- Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., ... & Saltzman, A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, 3(4), 291-307.
- Morris, S. B. (2007). Estimating Effect Sizes From the Pretest-Posttest-Control Group Designs. *Organizational Research Methods*.
- Moss, S. B., & Smith, P. O. (2009). Wellness and impairment content in schools of medicine curricula in the United States and Canada. *Medical Education Online*, 12.
- Passmore, J., & Marianetti, O. (2007). The role of mindfulness in coaching. *The Coaching Psychologist*, 3(3), 131-137.
- Raffone, A., Tagini, A., & Srinivasan, N. (2010). Mindfulness and the cognitive neuroscience of attention and awareness. *Zygon*®, 45(3), 627-646.
- Rice, P. L., & Ezzy, D. (1999). *Qualitative research methods: A health focus* (p. 291). Melbourne: Oxford University Press.
- Rochat, P. (2003). Five levels of self-awareness as they unfold early in life. *Consciousness and cognition*, 12(4), 717-731.
- Rosenzweig, S., Reibel, D. K., Greeson, J. M., Brainard, G. C., & Hojat, M. (2003). Mindfulness-based stress reduction lowers psychological distress in medical students. *Teaching and learning in medicine*, 15(2), 88-92.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Saldaña, J. (2012). *The coding manual for qualitative researchers (No. 14)*. Sage.
- Schure, M. B., Christopher, J., & Christopher, S. (2008). Mind–Body Medicine and the Art of Self-Care: Teaching Mindfulness to Counseling Students Through Yoga, Meditation, and Qigong. *Journal of Counseling & Development*, 86(1), 47-56.
- Schmertz, S. K., Anderson, P. L., & Robins, D. L. (2009). The relation between self-report mindfulness and performance on tasks of sustained attention. *Journal of Psychopathology and Behavioral Assessment*, 31(1), 60-66.

- Schmidt, S. (2011). Mindfulness in east and west—is it the same?. In *Neuroscience, consciousness and spirituality* (pp. 23-38). Springer Netherlands.
- Schure, M. B., Christopher, J., & Christopher, S. (2008). Mind-Body Medicine and the Art of Self - Care: Teaching Mindfulness to Counseling Students Through Yoga, Meditation, and Qigong. *Journal of Counseling & Development*, 86(1), 47-56.
- Seale, C. (1999). Quality in qualitative research. *Qualitative inquiry*, 5(4), 465-478.
- Sears, S., & Kraus, S. (2009). I think therefore I am: Cognitive distortions and coping style as mediators for the effects of mindfulness meditation on anxiety, positive and negative affect, and hope. *Journal of clinical psychology*, 65(6), 561-573.
- Segal, Z. V., Teasdale, J. D., & Williams, J. M. G. (2004). *Mindfulness-Based Cognitive Therapy: Theoretical Rationale and Empirical Status*.
- Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of behavioral medicine*, 21(6), 581-599.
- Shapiro, S. L., Shapiro, D. E., & Schwartz, G. E. (2000). Stress management in medical education: a review of the literature. *Academic Medicine*, 75(7), 748-759.
- Shonin, E., & Van Gordon, W. (2014). Searching for the present moment. *Mindfulness*, 5(1), 105-107.
- Siegel, D. J. (2007). *The Mindful Brain: Reflection and Attunement in the Cultivation of Well-Being (Norton Series on Interpersonal Neurobiology)*. WW Norton & Company.
- Sowell, E. R., Peterson, B. S., Thompson, P. M., Welcome, S. E., Henkenius, A. L., & Toga, A. W. (2003). Mapping cortical change across the human life span. *Nature neuroscience*, 6(3), 309-315.
- Steptoe, A., Wardle, J., Cui, W., Bellisle, F., Zotti, A. M., Baranyai, R., & Sanderman, R. (2002). Trends in smoking, diet, physical exercise, and attitudes toward health in European university students from 13 countries, 1990–2000. *Preventive medicine*, 35(2), 97-104.
- Tart, C. T. (1994). *Living the mindful life: A handbook for living in the present moment. Boston, Massachusetts: Shambhala Publications Inc.*
- Thera, N. (1962). *The heart of Buddhist meditation*. New York: Weiser.
- Thera, N. (1972). *The power of mindfulness*. San Francisco, CA: Unity.
- Toneatto, T., & Nguyen, L. (2007). Does mindfulness meditation improve anxiety and mood symptoms? A review of the controlled research. *The Canadian Journal of Psychiatry/La Revue canadienne de psychiatrie*.
- Valentine, E. R., & Sweet, P. L. (1999). Meditation and attention: A comparison of the effects of concentrative and mindfulness meditation on sustained attention. *Mental Health, Religion & Culture*, 2(1), 59-70.

- Walach, H., Nord, E., Zier, C., Dietz-Waschkowski, B., Kersig, S., & Schüpbach, H. (2007). Mindfulness-based stress reduction as a method for personnel development: A pilot evaluation. *International Journal of Stress Management*, 14(2), 188.
- Wallace, B. A. (2001). Intersubjectivity in Indo-Tibetan Buddhism. *Journal of Consciousness Studies*, 8, 209–230.
- Walsh, R., & Shapiro, S. L. (2006). The meeting of meditative disciplines and western psychology: A mutually enriching dialogue. *American Psychologist*, 61, 227–239.
- Webb E.J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive measures: Nonreactive research in the social sciences* (Vol. 111). Chicago: Rand McNally.
- Weinstein, N., Brown, K. W., & Ryan, R. M. (2009). A multi-method examination of the effects of mindfulness on stress attribution, coping, and emotional well-being. *Journal of Research in Personality*, 43(3), 374-385.
- White, L., Tursky, B., & Schwartz, G. E. (1985). *Placebo: Theory, research and mechanisms*. The Guilford Press.
- Wilber, K. (2000). *Integral psychology*. Shambhala Publications.
- Williams, M., & Penman, D. (2011). *Mindfulness: A practical guide to finding peace in a frantic world* (Vol. 360). London: Piatkus.
- World Health Organization. (2003). *The world health report: 2003: shaping the future*.
- Young, S. (1997). *The science of enlightenment*. Boulder, CO: Sounds True.
- Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. *Applications of social research methods to questions in information and library science*, 308-319.

Appendix 1 - Interview Topic Guide

1. Thank you for your participation in the workshop.
2. Demographic information - asking for basic details of the participant (confidential).
3. What made you participate in the Mindfulness workshop?
4. How did you hear of this concept of Mindfulness?
5. What did you think Mindfulness is prior to the workshop?
6. Did you believe you are Mindful prior to the workshop?
7. How was the idea of being in a group with other people?
8. Which of the fields of life was most interesting for you to explore before the workshop?
9. Now after you've attended the Mindfulness workshop - what is Mindfulness? Can you explain?
10. How was your experience of this workshop? Can you describe about your experience on the first/ second day?
11. Which was your favourite exercise? And which was the least favourite exercise?
Please explain.
12. Have you seen any changes in you since this the workshop? OR - have you discovered new insights about yourself? (i.e. competencies, qualities)
13. Do you think your surrounding has noticed a change in you? (i.e. friends, family)
14. Would you recommend Mindfulness it to your family/friends?
15. Do you believe that if you had this tool of Mindfulness before, it would have helped you overcome challenging periods in your life? (i.e. depression, anxiety, stress, fear). If YES - how do you think it would have experienced different?
16. Do you believe Mindfulness has helped you to cope with life since the workshop?
17. Do you think this workshop suits people from all backgrounds, cultures, and ages?
18. Do you have any recommendations, feedback or thoughts related to your experience?
19. Thank you for your openness and collaboration.

Appendix 2 - Participant Information Sheet

You are being invited to take part in a research study. Before deciding to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information. Feel free to discuss issues with anyone, and if there is anything that is not clear or any questions you have, feel free to ask. Take your time reading, and don't feel rushed.

What is this research about?

This research will explore the effects of Mindfulness on the experience of resilience in the context of graduate students. Mindfulness training teaches students to pay attention to the present moment through simple practices, which cultivate the ability to disengage from irrelevant or negative thoughts. This present moment awareness has many proven benefits, amongst them increased focus and attention, decreased stress and anxiety, balanced decision-making and improved well-being and happiness. The basic assumption is that you are the EXPERT to your life.

Who is running this research?

My name is Dana Zelicha, an MSc student at the LSE, Department of Organisational and Social Psychology. I work as a life and business coach, focused on enhancing individuals' well-being and productivity in today's fast-paced business environment. In the last 7 years, I have gained significant global corporate experience in various roles, and on this basis I developed a unique Mindfulness intervention. My supervisor is Dr. Ilka Gleibs, a senior lecturer at the LSE, department of Organisational and Social Psychology. For any further queries please contact us: D.Zelicha@lse.ac.uk or I.H.Gleibs@lse.ac.uk

Why have you asked me to participate?

Participants have been selected on the basis of their interest in joining the workshop.

What will participation involve?

Participation involves attending the Mindfulness group workshop (2 sessions), one-on-one interview (post workshop) and completing self-assessment questionnaire, measuring levels of Mindfulness and resilience (pre & post workshop). This research requires **your commitment** to attend all group meetings and interviews and complete all questionnaires mentioned above - to enable us running a full and comprehensive research process.

How long will participation take?

The Mindfulness workshop will take approx. 7 hours:

Mindfulness workshop - 2 meetings (3 hours each).

One-on-One interview/feedback session - will be scheduled separately with each participant.

What about confidentiality?

The research will maintain **confidentiality** throughout the whole Mindfulness workshop. All participants will be requested to keep workshop's content and experiences privately and all data will be **recorded anonymously**.

**If you are willing to participate, then please sign a consent form.
You can keep this information sheet for your records.**

Appendix 3 - Informed Consent Form

Project: Applying Mindfulness in the student's world

Researcher: Dana Zelicha, D.Zelicha@lse.ac.uk

Supervisor: Dr. Ilka Gleibs, Lecturer in Social and Organisational Psychology,
I.H.Gleibs@lse.ac.uk

To be completed by the Research Participant

Please answer each of the following questions:

Do you feel you have been given sufficient information about the research to enable you to decide whether or not to participate in the research? **Yes No**

Have you had an opportunity to ask questions about the research? **Yes No**

Do you understand that your participation is voluntary, and that you are free to withdraw at any time, without giving a reason, and without penalty? **Yes No**

Are you aware that the workshop will be anonymized recorded? **Yes No**

Will you allow the research team to use anonymized quotes in presentations and publications? **Yes No**

Will you allow the anonymized data to be archived, to enable secondary analysis and training future researchers? **Yes No**

Are you are willing to keep confidentiality and anonymity of all participants? **Yes No**

Do you understand that workshop content is researcher' intellectual property and should not be used in any circumstances? **Yes No**

Are you are willing to take part in the research? **Yes No**

Participants Name: _____

Participant's Signature: _____ **Date:** _____

If you would like a copy of the research report, please provide your email or postal address:

Appendix 4 - Day-to-Day Experiences Questionnaire

Dear Participant,

Below is a collection of statements about your everyday experience.

Using scales below please indicate how frequently or true you currently have each experience.

Please answer honestly and authentically accordingly to what *really reflects* your experience rather than *what you think* your experience should be. This information will stay ANONYMOUS & CONFIDENTIAL.

Please treat each item separately from every other item and mark **one box** per row.

Please indicate the degree to which you agree with each of the below items using the following scale:	1 Almost always	2 Very frequentl y	3 Somewhat frequently	4 Somewhat infrequently	5 Very infrequently	6 Almost never
I could be experiencing some emotion and not be conscious of it until some time later						
I break or spill things because of carelessness, not paying attention, or thinking of something else						
I find it difficult to stay focused on what's happening in the present						
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way						
I tend not to notice feelings of physical tension or discomfort until they really grab my attention						
I forget a person's name almost as soon as I've been told it for the first time						
It seems I am "running on automatic" without much awareness of what I'm doing						
I rush through activities without being really attentive to them						
I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there						
I do jobs or tasks automatically, without being aware of what I'm doing						
I find myself listening to someone with one ear, doing something else at the same time						
I drive places on "automatic pilot" and then wonder why I went there						
I find myself preoccupied with the future or the past						
I find myself doing things without paying attention						
I snack without being aware that I'm eating						

Please indicate the degree to which you agree with each of the below items using the following scale:	0 Not true at all	1 Rarely true	2 Sometimes true	3 Often true	4 True nearly all of the time
I am able to adapt to change					
I have close and secure relationships					
Sometimes fate or God can help					
I can deal with whatever comes					
Past success gives me confidence for new challenges					
I see the humorous side of things					
I feel obligated to assist others in need					
I tend to bounce back after illness or hardship					

Things happen for a reason					
I give my best effort no matter what					
I can achieve my goals					
When things look hopeless, I don't give up					
I know where to turn for help					
Under pressure, I focus and think clearly					
I prefer to take the lead in problem solving					
I am not easily discouraged by failure					
I think of myself as a strong person					
I can make unpopular or difficult decisions					
I can handle unpleasant feelings					
I have to act on a hunch					
I have a strong sense of purpose					
I have few regrets in life					
I like challenges					
I work to attain my goals					
I have pride in my achievements					

Please indicate the degree to which you agree with each of the below items using the following scale:	0 Never	1 Rarely	2 Sometimes	3 Frequently	4 Very Frequently
I feel supported by friends					
I attend social functions, parties and get-togethers					
I talk with my family members					
I laugh					
I like myself					
I am peaceful					
I am optimistic					
I relax					
I use my mental ability at school/work					
I feel satisfied by my school/work					
I feel my life has meaning					
I feel in control in my life					
I read					
I reflect on my life					
I am a good listener					
I pray or meditate					
I appreciate nature					
I give to or serve others					
I eat properly					
I exercise					
I refrain from smoking					
I get refreshing sleep					

Thank you for BEING Open & See you at the workshop! 😊

Appendix 5 - Sample Interview Transcript

Interviewer: Hello.

Participant 6: Hello.

Interviewer: How are you?

Participant 6: I'm fine thank you.

Interviewer: First, I want to thank you for your participation in the workshop and for being open. Can I start by asking what drove you and what attracted you in this Mindfulness workshop that eventually made you decide to join?

Participant 6: I think several reasons. First, the concept of Mindfulness that I haven't heard of before talking to you, so it was interesting because it sounded close to what I was aiming to discover about myself so it just came in time. Second, I would say it's your personality. When we spoke I wanted to be at your workshop so you drove me as well.

Interviewer: Thank you. Did you hear of Mindfulness or I was the one who introduced you to this concept the other day?

Participant 6: No, I have never. Actually I haven't heard about Mindfulness as such a concept, but after going through the workshop, I starting reading on this. I think it's a concept that probably existed before, but it has different names as well like probably through meditation or religion, like a pray, so it's all parts of a bigger philosophy of life I would say. Mindfulness, for me, is just one more approach in how you can be in harmony with yourself and be happy and it's great to know this.

After I went there, I see Mindfulness everywhere now and I published a blog in the company I work for. So many people commented by saying that Mindfulness has changed their lives. One woman said she lost 50 kilos - turning into another person - all thanks to Mindfulness. Another person said it helps to go through hardship. It was amazing to see and to connect with people throughout the world in my company, all being so open and honest about their own experiences with Mindfulness. Even general management commented on my blog and it was amazing to see that it's not important only for certain level of employees in the company, but it goes from bottom to upper management as well. That was great.

Interviewer: It sounds like when you start noticing something it's...

Participant 6: Exactly! It's everywhere now. It's everywhere and my mind is focused on that direction.

Interviewer: You're Mindful of Mindfulness. (Laughing)

Participant 6: (Laughing).

Interviewer: What did you think is Mindfulness before this workshop? What did you think Mindfulness is before you came into the workshop?

Participant 6: I think Mindfulness is just like taking this word as Mindfulness, so like or taking the phrase 'Be Mindful' of something. For me, it was noticing; so noticing what happens around you, and noticing what you experience. For me, it was more about your experiences rather than your inner state - being Mindful of the environment around you. This is how I understood it before.

Interviewer: It's good. How was the idea of being in a group with people?

Participant 6: I think group exercise always helps and doesn't help at the same time, so it's just a different environment from one-to-one obviously. Group, I think it depends on what kind of people you have in a group. So our group was quite open, quite honest and quite emotional as well sometimes. This made me open up because if you would feel some tension in the group, I am that kind of person that would immediately close - you have to be brave to open when others don't.

But because our group was so supportive, and generally I think that when people are interested in this concept, they would be supportive, engaging and open. For me, I enjoyed the group context and I'm not sure it would work one-to-one; it would be very different environment and very different findings.

Interviewer: Which of the fields of life was most interesting for you to explore before the workshop? When you came to the workshop did you have an idea of what you want to work on or you just came blank?

Participant 6: I don't think I had any targets or any goals or any areas of my life.

Interviewer: All right.

Participant 6: I came to experience.

Interviewer: You came to experience, great, but did you believe before the workshop that you were Mindful with this basic understanding of Mindfulness?

Participant 6: It's because I was not so familiar with the concept itself, I can look back and I think I could say I was quite Mindful, but not always. I was not

thinking about this concept when I was Mindful so it was different. I was just probably experiencing Mindfulness, but not being Mindful that I am doing this rather unconsciously.

Interviewer: You didn't categorize yourself to any level of Mindfulness?

Participant 6: No, I didn't no.

Interviewer: That's good. Thank you. Now that you've been to the Mindfulness workshop what is Mindfulness? Can you explain?

Participant 6: If I put in a phrase, I think being Mindful for me it's transformed from being Mindful about your experiences, but rather to be Mindful of your inner state, and of your own feelings, emotions and actions and they are why you are doing certain things.

For me Mindfulness now is understanding your inner state, your inner emotions, your feelings and how they transform into your actions and into your interactions with others. I've been reading several books and I'm finding the concept of Mindfulness there as well. For me it would be not only understanding, but also accepting, and it's accepting exactly this moment when they happen. It's not abandoning yourself for the sake of doing goal setting.

Interviewer: Thank you. How was your experience of this workshop? Can you describe me a little bit how did you experience this workshop the first day the second day?

Participant 6: Yeah, I think first day was a bit tense for me in terms of the state I came to the workshop. I told you before, I had a very weird emotional condition that day, so from the morning I didn't feel well - I wanted to sleep, I couldn't concentrate on anything in particular the whole day. It wasn't connected to anything in particular; so it wasn't connected to my lack of sleep or my drinking the night before so it was just there. So when I came to the workshop I felt like it's just another burden on me, instead of going and relaxing at home, because I already subscribed for that I had to go and spend three more hours there. This was the feeling when I came and I was quite tired in the beginning, but going through the first day I think I left with more energy than I came with. I left more refreshed and more with a clear mind rather than before, so it was quite interesting. The second day I was already in the mood, I think in the right mood and especially because I already knew people who are there as well, and especially the meditation during the second day and the experience of going through relaxing, and allowing other people to hold you. I felt I was completely relaxed, (laughing) completely relaxed so that I almost fell on the floor.

As I said, I think I was Mindful, but unconsciously before. So it kind of brings me the whole understanding of what can be done to achieve this

state of Mindfulness, and brought me back the desire to do meditations or time for myself, observe my emotions, or observe feelings. This workshop worked for me as a target, like an action plan, what can be done to achieve this, because I like the state of Mindfulness, I think it's really great.

Interviewer: I'm really happy and pleased to hear that. Do you see any change since this experience happened to you and you participated in the workshop?

Participant 6: I think it's amazing, like today I was thinking about it – I would like to write something and share with my friends on Facebook, because it's my birthday, and because I can get so many good messages and good words from people. I was thinking about what I'm going to write and actually I was thinking that, "I'm feeling," at least today and probably a couple of days ago as well. "I'm feeling very peaceful inside and a lot of more in harmony with myself than before". I wouldn't say it's a change of a week, obviously I wouldn't say the workshop was a big step for me; it was just one more step towards my discovery of Mindfulness and internal peace and harmony.

The words that I got from my previous boss were just amazing today. I don't think I have ever got this kind of congratulation message, saying that she is following my messages at Facebook or somewhere else, and she said that she is very proud of me and she sees how I'm growing. She said so many things. I was reading this and I couldn't believe it was addressed to me, because this was me always looking up at other people and trying to understand how they are so much in harmony. I think this birthday especially is a milestone for me to get this kind of feeling. It's amazing.

Interviewer: It sounds amazing. Do you think your surrounding has noticed the change in you? Do you think your husband or your friends or the people at work has noticed any kind of change in you?

Participant 6: I think they did. First of all, I noticed it in myself; I became a better listener, I would say. I'm not sure about what marks I put there, but definitely a better listener. I have people coming over to me - I enjoy this conversations and enjoy listening to them enjoy, asking about how they are, because I have this energy inside of me that I can spend on these interactions. I had a long conversation in the morning with my grandmother, helping her with some kind of problems with her sister, and then I had a long conversation with my other friend. I'm not sure if it helps them, but I hope it does. For me, this is the most important change.

Also, it's so interesting with my husband. What I wanted to put on Facebook, as well, that I stopped concentrating on negatives and then I started just appreciating what is around. It's an amazing feeling that you get when you stop complaining, stop moaning and you start noticing

things. I think this is a change and the workshop was, again, this step forward for me. What the workshop did for me as well - I understood that it's a journey for many other people. This was a group exercise, so you are not alone in that, you get many more people going through the same things. This gives you so much support and grounding, as well that you can share with them.

Interviewer: Lovely, thank you. Do you think your husband noticed?

Participant 6: I told him about workshop and I told him about my experience and I'm very lucky to get him very supportive. For example, it's my birthday, again, sorry for reminding you, but everything is connected to that. He planned his business trip for these days, so I initially got offended by that because there was a pride in me like, "It's my birthday and you are leaving on my birthday - how come?" and initially I got really offended, almost went out to a different room. Before, I would probably keep this offense inside me, but instead today, I speak more openly about my feelings because I'm accepting my feelings as well. I think for him he saw that I am upset or he understood why and it makes dialogue easier, because I am just not keeping things inside and doing the bright face, but rather talking about this. I think he did notice.

Interviewer: Great, thank you. Now I have a question about your past, or the life before Mindfulness was introduced to you. Do you believe that if you had this encounter with Mindfulness before it would have helped you overcome periods in your life you were in depression, anxiety, stress, fear, challenges let's say, just difficulties in life. Do you think it would have been different?

Participant 6: I think it's not like would but it did actually, because I was not familiar with the word Mindfulness, but the concept of Mindfulness I discovered before exactly I discovered it when I moved in to the UK. I was without a job, I didn't know what to do, didn't know which job to apply for. I went for a coaching program and a part of the coaching program was in Mindfulness, obviously, it was about how to accept your emotions, how to recognise your emotions. For me, at that point, it was an eye opener because what happened before that point is that I was not aware of my feelings at all. I had feelings but I was not noticing them.

When something was happening to me and I felt something in my body, but I didn't connect it to my inner state, my inner feelings, and at that point that was a very simple technique probably. I mean Mindfulness is a much broader concept, but there we were just given a technique of just recognising the emotion inside you, saying thank you because this emotion helps you to understand that something goes like you wouldn't like to go, and then trying to find a solution. When your mind focuses on solution rather than just being anxious or being depressed, it changes your mind to thinking positive and thinking in the goal or actioner state. First time when I encountered this, it was not called Mindfulness, but at

that point it was a discovery. If Mindfulness would come at that point, I think, obviously it would make a difference, and it did make a difference.

Interviewer: Great! Happy to hear that. Would you recommend Mindfulness to your friends?

Participant 6: Yeah, I did and I will and I'm recommending it to everyone. As you said, in this format, the workshop probably it's just the tester, it's not the real Mindfulness journey, because Mindfulness journey is a life journey. It's a journey of basically recognizing yourself and very rarely a human being can say that they know themselves fully. It never happens. Our great philosophers complained about that they don't know themselves enough.

I think that this thing, it's not about just simple techniques to keep you peaceful, I think it's more about philosophical and grounded in understanding your own being in this complex world nowadays. I think it's a life journey and you understand it first, but then you do step-by-step, but it can be individual discovery, it can be group discovery, it can be family discovery, it just depends on person. For me, it's again, I already can see how much I've changed if you compare myself with five years ago.

Interviewer: Do you believe Mindfulness has helped you to cope with life?

Participant 6: To certain extent, yes.

Interviewer: In which way, like how can you see?

Participant 6: In a way of recognizing myself as being myself. I'm not saying that there is no room for personal development, of course there is, but it's way of stopping criticising yourself but of accepting yourself, as you are, and seeing how you can be better. For me it's the main one.

Interviewer: How will it help you if, God forbid, something difficult or hard will happen?

Participant 6: I haven't started meditations yet, but I think this is a great tool to do that. I'm talking to my friends, who are meditating, and they are sharing their great experiences. They just started perceiving life, it's less worrying and less negative emotion state and more in accepting and more in relaxed state.

Interviewer: Sounds good. Do you have any recommendations, any feedback any thoughts or you said before so?

Participant 6: I think because it's a tool they own it and you said usually transfers six weeks or even longer. I would say that this workshop should be

probably called introduction to Mindfulness. This is the time to recognise concepts and all the exercises that kind of time limited because you can't put longer in those to ... not even two days it's just six hours. I think it's a taster as you called it and it's for people who didn't know this, but want to experience.

What I will suggest; it makes sense probably to and I'm sure you do this for your normal workshop is to check the level of people. So, people who are more advanced in Mindfulness they go through probably more deeper understanding, deeper exercises and people who are just being introduced in Mindfulness it's more about a taster.

Interviewer: What about the flow of the 2-day workshop?

Participant 6: The flow, I think it went smoothly, and I actually was not even enquiring in terms of what we are doing next or what we are doing now

Interviewer: Because you were present in the room (Laughing).

Participant 6: Yeah, because for some people feel more structured, for them it would be important to see an agenda, probably the number of exercise, like a journey. Sometimes it helps when the journey is visualized, for people who are visually oriented it might be helpful. I don't know, for me it was fine.

Interviewer: Do you have any other questions or comments?

Participant 6: Actually, I think it's a suggestion probably, but it would be great. Because once you go through this experience and you go with people who are interested in Mindfulness as well, you would like to stay in touch with them and seeing how they are progressing. I think some kind of forum or some kind of a shared platform to share experiences because you're sharing with people you already know - then it would be great.

Interviewer: Thank you. That's a great feedback.

Participant 6: Kind of a post-program communication. It doesn't have to be facilitated, but it's just about how other people are doing.

Interviewer: Anything else, any requests? I would like to thank you for your participation.

Participant 6: No, it was great. Thank you.

Interviewer: Thank you. It was lovely to have you and I think this is an amazing progress for yourself so I'm happy for you and I cherish you for what you have done.

Participant 6: I'm just thinking also, it's probably like that as it just was what last week. The Mindfulness... I think... the thing with Mindfulness is it doesn't come quickly and so you have to wait, and you have to cherish it, and you have to work on this. Probably if you give me this question in a year's time it will be much much...

Interviewer: I will be delighted to meet you in a year and to ask you these questions. I am very curious to know what you will pursue to follow with this path of Mindfulness. It will be interesting; I thank you again, and wish you a Mindful day.

Appendix 6 - Codebook

Code	Sub-Code	Description	Example	Occur.
Benefits of Mindfulness	Carpe Diem	Rumination, Depression and Intolerance of Uncertainty - student under stress suffer from reliving their past, pre-living the future and depression	'One of my mantras in life is Carpe Diem. But I know I'm not living by it so that is number one objective for me' (Participant 12) 'Generally on my job, I worry a lot about stuff that is maybe premature or worry, without really doing anything about I'. Taking the job home with me, so that it can be an issue over dinner' (participant 4)	46
		Acceptance and Appreciation of the Present Moment	'For me, Mindfulness is not only understanding, but it's also accepting this moment exactly when it happens... not abandoning yourself for the sake of doing goal setting.' (Participant 6)	
		Enhanced Productivity and Effectiveness	'I think one of our biggest challenges here is managing our time. Being able to both work but also rest effectively. I think it's very easy as a student to go into this half-conscious state of: you're never really on and you're never really off...so when you do school, you're Mindful about that. When you have time off, you're Mindful about that.' (Participant 4)	
Benefits of Mindfulness	Inner Peace	Stress and Anxiety Reduction, Relaxation Enhancement	'I think my mom would have coped with stress a lot better if she was more relaxed. I'm absolutely going to insist that she looks into meditating.'(Participant 16) 'I've been on the phone with my mother a couple of times - she's been like - Whoa, you sound like you're relaxing a little bit too much.' (Participant 9)	40
		Life Balance	'I definitely know that that's an issue that I'm not balanced in terms of what you would call the depleting and the nourishing activities.' (Participant 4)	

		Compassion and Empathy	'Yesterday I was with my team and I was actively telling myself that "if you want the best for the organisation, you need to take away your ego, just focus on the bigger picture and let them take some credit even though you think they don't deserve it.' (Participant 12)	
Benefits of Mindfulness	Resilience	Gaining Control over life by speaking out	'Being able to identify that this is frustrating me, and the need to have a serious conversation about or talk about or some way create some boundary. Being able to say no.' (Participant 4)	38
		Self-Belief	'I think sometimes we know the principles, but we need somebody reminding us, especially when we're facing difficulties... I think this workshop reinforced this kind of self-belief and made me feel more confident about myself.'(Participant 14)	
		Self-Discipline	'In Mindfulness attentional focus and attentional discipline are really important... Having the discipline to pull your attention in and not be distracted by the excitement of things around.'(Participant 11)	
Benefits of Mindfulness	Awareness	Stop Autopilot Mechanism (such as habitual patterns and robotic behaviours)	'Sometimes when I cook or walk in the streets I'm on this automatic pilot mode, and I'm like - why did I do that just now, I want to undo. I'm definitely a lot on the automatic pilot, especially in the mornings.' (Participant 13)	31
		Observing Thoughts	'I think one thing that really appeals to me in the workshop is the fact that you don't internalise your thoughts.' (Participant 4)	
		Awareness of Surrounding	'Before the workshop I used to be so clumsy, and I would just bump into things and hurt myself... Now I'm just more focused.' (Participant 7)	
Benefits of Mindfulness	Freedom	Free of Self-criticism and Judgement	'I'm very harsh on myself. I cannot even describe how harsh I can be. I don't know why. It has been like this forever that I want	22

			everything to be perfect; I want to be portrayed in a very good way. (Participant 2)	
		Free of Expectations	'I love my family. They give a lot, and they demand a lot. I made myself feel bad because I've tried to always meet their expectations.' (Participant 4)	
Benefits of Mindfulness	Listening	Listen to your Bodily Sensations	'Wednesday night I was very, very tired and friends were asking me if I wanted to go to the pub. Normally, I would always go, because I love seeing them and also for not missing out. I eventually said: "It was nice...but I'm going to sleep".'(Participant 5)	17
		Listen to your Gut feeling	'We all have gut feelings but if we often don't take the time to be Mindful and listen to them - it's easy to just ignore them, right? Yeah, it would have been better to take a few moments here and there to listen to a gut feeling rather than to what society is telling us to do.' (Participant 16)	
		Listen to your Environment	'I noticed it in myself I became a better listener... I have people coming over to me and I enjoy listening to them and asking about how they are and because I have this energy inside of me that I can spend on these interactions.' (Participant 6)	
Benefits of Mindfulness	Energy	Nourishing Activities	'I was quite tired in the beginning, but going through the first day I left with more energy than I came in. I left more refreshed and more with a clear mind rather than before.' (Participant 6)	16
		Depleting Activities	'I feel a little bit frustrated because I realise that there are some areas that are bringing me down and draining me of energies' (Participant 4)	

What is Mindfulness?	Awareness	Mindfulness was defines as self-awareness	'Before the workshop I thought Mindfulness is awareness. You have to be aware of yourself' (Participant 2)	22
What is Mindfulness?	Meditation	Mindfulness was confused with meditations	'I knew it was something to do with meditation and trying to be present but more than that.' (Participant 16)	13
What is Mindfulness?	Focus	Mindfulness was defined as the ability to focus on something, and observe your thoughts	'I knew that it had to do with your ability to focus on something. You could connect it to decision-making and ability to distance yourself from your thoughts and observe your thoughts and more critically evaluate them rather than internalise them'. (Participant 4)	6
What is Mindfulness?	Acceptance	Mindfulness was defined as the ability to accept yourself without judgement	'To reconnect and try to accept and slowly decrease the barriers that I've put between my instinct and my rational mind.' (Participant 5)	4
What is Mindfulness?	Religion	Mindfulness was related as a religious stream	'I think it's a concept... like religion, like a pray, so it's all parts of a bigger philosophy of life I would say.' (Participant 6)	2
Mindfulness and Age	Start Young	Mindfulness was encourage to start practicing at an early age	'If I learned Mindfulness earlier, I would keep in mind why I chose to come to London, and focus all my attention on these goals rather than on my difficulties.' (Participant 12)	17
Mindfulness and Age	Requires Maturity - not Age-specific	Mindfulness was associated with maturity rather than age	'I think it has to do with another sense of maturity... You would have to care about yourself. I don't think that has to do with age.' (Participant 4)	9
Mindfulness and Age	Start Late	Mindfulness was found to be more appropriate for older people	'I think it's going to be difficult for younger people to engage with it because it's about discipline and the ability to pull your attention in and not be distracted by the excitement of things around.' (Participant 11)	5

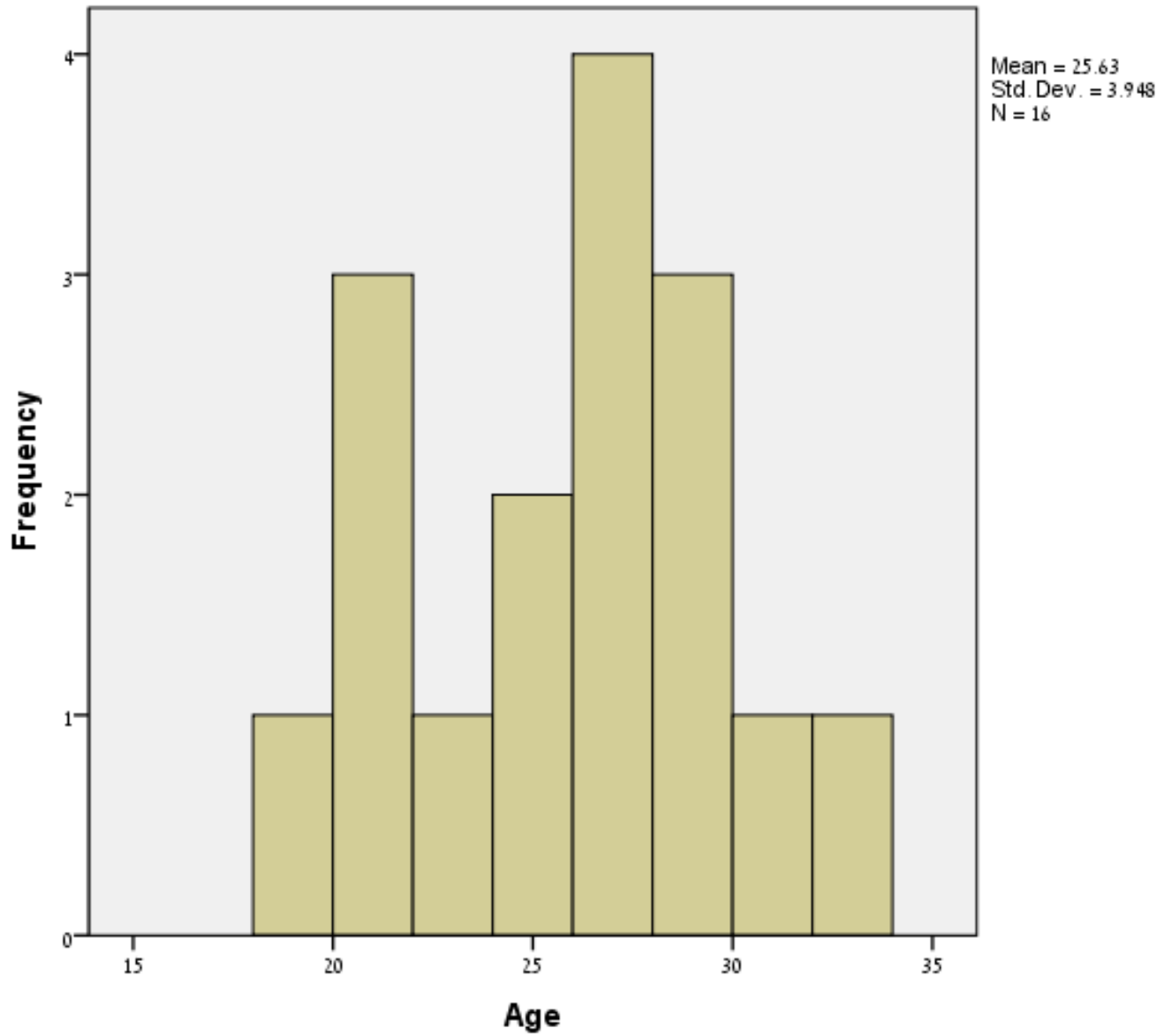
Mindfulness and Cultural Diversity	Individualism	Mindfulness was found relevant to western cultures, because of their frantic lifestyle yet escalating focus on individual's emotional well-being.	'I'd say that America is much more open to Mindfulness in general. I can feel how much people put more emphasis on well-being.' (participant 5)	10
Mindfulness and Cultural Diversity	Collectivism	Mindfulness was found relevant to eastern cultures because they lack in focus on individual well-being and personal development.	'In China they are telling them: "You should first think of your country, then of your society, your family, and only then of yourself, which comes last".' (Participant 14)	8
Mindfulness and Cultural Diversity	Openness	Openness levels were found to significantly influence Mindfulness practice. Western people were described as open to a certain point.	'Regardless of who you are externally, you need to be open and interested.'(Participant 10)	7
Mindfulness and Cultural Diversity	Suppression	Openness levels were found to significantly influence Mindfulness practice. Eastern people were describes as suppressed until you get to know them or they start trusting you.	'People often have this impression that Asians are very difficult to open up, which is true. But once you're good friends with them they open up so quickly.' (Participant 12)	5

Appendix 7 - Themes

Global Themes	Organising Themes	Basic Themes
Benefits of Mindfulness	Carpe Diem	Rumination, Depression and Intolerance of Uncertainty
Benefits of Mindfulness	Carpe Diem	Acceptance & Appreciation
Benefits Of Mindfulness	Carpe Diem	Productivity & Effectiveness
Benefits of Mindfulness	Inner Peace	Stress & Anxiety Reduction
Benefits of Mindfulness	Inner Peace	Life Balance
Benefits Of Mindfulness	Inner Peace	Compassion & Empathy
Benefits of Mindfulness	Resilience	Gaining Control
Benefits of Mindfulness	Resilience	Self-Belief
Benefits Of Mindfulness	Resilience	Self-Discipline
Benefits of Mindfulness	Awareness	Stop Autopilot
Benefits of Mindfulness	Awareness	Observing Thoughts
Benefits Of Mindfulness	Awareness	Awareness of Surrounding
Benefits of Mindfulness	Freedom	Free of Self-Criticism & Judgment
Benefits of Mindfulness	Freedom	Free of Expectation
Benefits Of Mindfulness	Listening	Listen to your Body
Benefits of Mindfulness	Listening	Listen to your Gut Instinct
Benefits of Mindfulness	Listening	Listen to your Environment

Benefits Of Mindfulness	Energy	Nourishing Activities
Benefits Of Mindfulness	Energy	Depleting Activities
What is Mindfulness?	Awareness	Self-Awareness & Understanding Ourselves
What is Mindfulness?	Meditation	Practice Meditation
What is Mindfulness?	Focus	Focusing on the present moment & Noticing things
What is Mindfulness?	Acceptance	Accept yourself without Judgment
What is Mindfulness?	Religion	Mindfulness is like a religion
Mindfulness and Age	Start Young	To be taught at a young age
Mindfulness and Age	Requires Maturity	Not related to age - requires maturity
Mindfulness and Age	Start Late	To be taught at an older age
Mindfulness and Cultural Diversity	Individualism	Relevant to Individualistic and western cultures
Mindfulness and Cultural Diversity	Collectivism	Very Relevant to collective and eastern cultures
Mindfulness and Cultural Diversity	Openness	You need to be open to practice Mindfulness
Mindfulness and Cultural Diversity	Suppression	Hard to practice Mindfulness under suppression

Appendix 8 – Age Chart



Appendix 9 - Paired Samples T-Tests of Means

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MAAS before	58.44	16	8.648	2.162
	MAAS after	63.50	16	7.933	1.983
Pair 2	CD-RISC before	69.38	16	8.405	2.101
	CD-RISC after	74.31	16	8.569	2.142
Pair 3	OSU before	63.13	16	8.098	2.025
	OSU after	67.25	16	8.185	2.046

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MAAS before & MAAS after	16	.768	.001
Pair 2	CD-RISC before & CD-RISC after	16	.747	.001
Pair 3	OSU before & OSU after	16	.896	.000

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 MAAS before - MAAS after	-5.063	5.686	1.421	-8.092	-2.033	-3.561	15	.003
Pair 2 CD-RISC before - CD-RISC after	-4.938	6.038	1.510	-8.155	-1.720	-3.271	15	.005
Pair 3 OSU before - OSU after	-4.125	3.722	.930	-6.108	-2.142	-4.434	15	.000

Appendix 10 - Correlations

Correlations pre-intervention

		MAAS before	CD-RISC before	OSU before
MAAS before	Pearson Correlation	1	.098	.362
	Sig. (2-tailed)		.719	.168
	N	16	16	16
CD-RISC before	Pearson Correlation	.098	1	.554*
	Sig. (2-tailed)	.719		.026
	N	16	16	16
OSU before	Pearson Correlation	.362	.554*	1
	Sig. (2-tailed)	.168	.026	
	N	16	16	16

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations post-intervention

		MAAS after	CD-RISC after	OSU after
MAAS after	Pearson Correlation	1	.014	.154
	Sig. (2-tailed)		.958	.569
	N	16	16	16
CD-RISC after	Pearson Correlation	.014	1	.663**
	Sig. (2-tailed)	.958		.005
	N	16	16	16
OSU after	Pearson Correlation	.154	.663**	1
	Sig. (2-tailed)	.569	.005	
	N	16	16	16

** . Correlation is significant at the 0.01 level (2-tailed).

Appendix 11 - Regression

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491 ^a	.241	.187	8.392

a. Predictors: (Constant), Age

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	313.028	1	313.028	4.445	.054 ^a
	Residual	985.972	14	70.427		
	Total	1299.000	15			

a. Predictors: (Constant), Age

b. Dependent Variable: MAAS before

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	87.404	14.221		6.146	.000
	Age	-1.157	.549	-.491	-2.108	.054

a. Dependent Variable: MAAS before

Appendix 12 - Personal Note from the Author

I have always been fascinated by spirituality; dreams, awareness, intuition, realisation, happiness and love. In periods when I found a gap between my reality and my dreams, I became an investigator of my own life. Yet, only after undergoing a major change, I 'woke up' and started to appreciate my existence, mainly by not looking for external sources of happiness. Living in Switzerland was this turning point, which forced me to detach myself from my old stressful and frantic life, and surrender to external serenity of this wonderful country, eventually developing an incredible inner peace, to-date called Mindfulness. This clarity and self-connection led to previously inconceivable benefits; suddenly all I dreamt of and everything I desired started to materialise without any effort. By giving up my ideal job and lifestyle, I made the right and Mindful choices for myself, and started to pursue my destiny of helping people get closer to themselves and discover the truth within. Even though I didn't know it was called Mindfulness, I wanted to share my secret with everyone. I knew then, that this would be my chosen path in life.