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## **The Kindness Paradox**

Helena de Klerk

Portfolio submitted in fulfilment of the requirements for the  
Professional Doctorate in Counselling Psychology (DPsych)



City, University of London  
Department of Psychology

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**Declaration and Powers of Discretion**

I hereby declare that the work presented in this portfolio is entirely my own, under the supervision of Dr Trudi Edginton.

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## **Portfolio Preface**

Word count: 1426

The title of this portfolio, The Kindness Paradox, reflects a theme that runs through all three components of the portfolio; connecting with others even in our own mind is powerful and potentially beneficial but it also hurts and can be a challenge to navigate. Writing about kindness, connectedness and belonging amidst current global challenges (e.g. refugee crises, Brexit, COVID pandemic, global warming, political divisions, increasing rates of mental health difficulties) created a sense of urgency, highlighting the need for further research and more importantly actionable ideas to contribute in meaningful ways. The potential for change on small and large scales in addition to the sense of urgency melded with my own desire to affect change. At this stage in my life and career I feel I finally have a sense of myself, my foibles and motivations, and how I can best support others in both professional and personal capacities. This portfolio is in many ways a culmination of my personal and professional journey so far. Writing it has been fascinating, painful and rewarding. Getting to know patients and research participants through their presence, thoughts and stories has shaped my interest in embodied and experiential processes, while thinking about collective experiences motivates me to consider the influence of systemic processes.

This portfolio comprises three pieces of original writing. The first is a publishable article (part A) focusing on the Kindness Paradox findings from the mixed methods (MM) feasibility study. The second is the larger original thesis (part B) that first identified the Kindness Paradox and offers a rich exploration of the lovingkindness meditation (LKM) in a sample of young adults (YA). The third and final component of the portfolio is a combined case study and process report (part C) from my work with a patient in a secondary care service. Individually and together these pieces of writing offer insights into the different ways that we can help individuals and groups navigate the toils and tribulations of life.

Starting in the therapy room, the case study/process report, introduces Amalia (a pseudonym to protect the patient's right to privacy and to treat her information confidentially) with whom I worked for about 10 months in an outpatient secondary care NHS team. The COVID pandemic affected our work greatly and also enhanced the complexities of her presentation, which included splitting, deep epistemic anxiety, mistrust and ambivalence. She deeply hated being in therapy but could not bear to not attend either; highlighting the central premise of the Kindness Paradox that duality is key in life. Duality is a key principle in Eastern philosophies, highlighting the richness of life but also the importance of opposing forces; we cannot have life without death or lightness without darkness. Rather than being oppositional this dualism is holistic, stressing the interdependence of these forces, with each

giving rise to the other. In my work with Amalia and other patients I came to realise the radical importance of this dualism; love cannot exist without hate. Ideally there is harmony and balance between these two, for example when a child can express anger towards their parents while still knowing that they are loved. This dualism was out of balance for Amalia, rooted in the traumas of her early life, and manifested in her ambivalence with therapy, her stuckness, and the fears she brought into our sessions.

This dualism is present in the research portions of the portfolio as well, not only as participants experienced both pleasure and discomfort with LKM, but also it inherently exists within the critical realist (CR) framework, the mixed methodology and the tensions between Buddhist and therapeutic practices. Dualism is ubiquitous when you stop to notice it. For example, in the last few years I have learned to sit with both my inner critic and my compassionate self, creating space for both/and rather than either/or. Awareness of and acceptance of dualism is likely to give rise to equanimity, an acceptance of what is, which is associated with flexibility and adaptive responses, key for resilience, wellbeing and good mental health. In this time of change and transition, especially for YA, this is a critical consideration. Change and transition are often accompanied by unknowns and uncertainty and when confronted by uncertainty a common tendency is to respond rigidly in an attempt to create sense and certainty. Rigidity and flexibility are antagonistic; put pressure on a rigid stick and it breaks, put pressure on a flexible stick and it bends with you. As explored in the thesis, attachment likely plays a significant role in determining how we respond, rigidly or flexibly.

During one of my final supervision sessions prior to submission I spoke with my supervisor about this preface as I was experiencing a block, having found myself stopped midsentence unable to think about the project any longer. In reflecting on this experience we came to realise I was likely experiencing something similar to my participants; I too was facing a psychological threat that I was protecting myself from by not thinking (in my case perfectionism but also the imminent loss of this thesis that I have worked on for 4 years). This led us to reflect on the experience of vulnerability, which reminded me of a reading from the first year on the doctorate by Judith Jordan called *Valuing Vulnerability: New Definitions of Courage*. What I remember from her writing are two things: 1) the strength and value of vulnerability and 2) that sometimes you need someone to “go to the edge” (Jordan, 2008, p.228) with you in order to bear the suffering. This feels relevant in the context of this portfolio too. Not only were the participants able to share some of their vulnerability with me but the data also suggested that some of the participants may not have felt held enough to

go to their edges, both as a result of the set up of the intervention (e.g., not ideal location) but also as a result of their own internal schemas/working models (Bretherton & Munholland, 2008; Young et al., 2003). The same is likely true for Amalia.

In many places in the world vulnerability and kindness are viewed as qualities associated with weakness and dismissed as disadvantages. Nothing could be further from the truth. These qualities are however not without their difficulties as this portfolio shows. Radical kindness is taxing and can lead to burnout. Bloom for example advocates for rational compassion, reminding us that too much caring can lead to paralysis and more suffering (Bloom, 2018). In my experience LKM treads that fine line between over-identifying and feeling with others due to its progression and focussed attention on the four phrases. In the same way that mindfulness can have a calming effect as a result of its focus on something specific (e.g., the body, the breath, the moment), so too LKM can have a calming effect when we are invited to focus on sending wishes of safety, health, happiness and ease. In this structure and focus practitioners are offered containment and held by the practice, as they confront not only their own suffering but also the suffering of others. This is similar to the therapist's role in the therapy room; we bear witness to suffering and, as Jordan so beautifully describes it, join our clients at the edge (Jordan, 2008). The recognition of the universality of suffering is powerful in itself and unites us, lessening the burden of that suffering, reducing defenses and as a result making it easier to connect. Although the current data were inconclusive I remain curious about the potential role of mentalizing in this process and wonder whether deficits in mentalizing impede the ability to connect with our own as well as the suffering of others and whether LKM can improve mentalizing when individuals are held enough to remain with their own suffering, creating space to be able to also bear the suffering of others.

It is clear more research is needed, especially around the role of attachment and mentalizing in the context of LKM, which could benefit from a more embodied, biopsychosocial lens, inclusive of neurobiological data to capture the realist lens of the CR framework. I look forward to seeing where these explorations take us. In the mean time I will practice what I've been preaching, namely that with time and continued effort the barriers to lovingkindness lessen. As the saying goes, the best time to plant a tree was 20 years ago and the second best time is now.

May you be safe, may you be happy, may you be healthy and may you live with ease.

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## **Part A: Publishable Article**

### **The Kindness Paradox: A Mixed Methods Feasibility Study**

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Part A

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### Abstract

**Objectives.** The aims of this mixed methods feasibility study were to explore the potential benefits of the lovingkindness meditation (LKM) for young adults (YA) and to better understand the effects of LKM by exploring potential underlying mechanisms. **Methods.** 28 participants aged between 18-25 participated in a novel process-specific group LKM intervention. All participants completed four baseline measures, which were repeated post intervention and at a 6-month follow up. The measures included wellbeing, connectedness, mentalizing and attachment questionnaires. All participants were sent a survey towards the end of the study and a subsample of participants completed semi-structured interviews post-intervention and at follow-up. **Results.** Using parametric and non-parametric analyses for the quantitative data and Thematic Analysis (TA) for the qualitative data, this study found mixed evidence for LKM. Significant improvements were evident post-intervention for wellbeing and connectedness, and participants identified a range of benefits suggesting that LKM was helpful. However the data also suggested that changes were not maintained without continued practice and that there were challenges associated with the programme, some of which were attributed to external confounds while others were attributed to LKM. **Conclusions.** These mixed results show evidence of a Kindness Paradox, identifying LKM's ability to be both helpful and challenging. These results need to be taken into account in future applications of LKM, to ensure LKM is applied in a person-centred way, respectful of each individual's need.

**Keywords:** Lovingkindness, meditation, intervention, young adults, wellbeing, connectedness

## Introduction

During late adolescence and early adulthood young adults (YA) in their late teens to mid-twenties navigate a number of developmental milestones and a “fundamental reorganization” (Konrad et al., 2013, p.425) as neurons are pruned and hormonal changes take place, making the brain more efficient but also creating imbalances between the limbic and executive functioning brain areas (Blakemore, 2012, 2019; Cozolino, 2014; Crone, 2011; Mills et al, 2016). It is a time of transition and change when YA crave acceptance from peers and independence as they develop their identities separate from their caregivers, while also yearning for support, comfort and reassurance. It is a vulnerable developmental period that can often leave YA feeling alone and isolated.

Loneliness is arguably one of the biggest issues of the last decade especially during the recent pandemic. The experience of loneliness and isolation amongst YA is especially pernicious with between 50-70% of YA in the UK reporting these types of experiences, a much higher rate compared to other age groups (ONS, 2018, 2020). These experiences have serious implications for the developing sense of identity and mental health of YA, leading to physical as well as emotional pain and the resulting negative effects on a range of outcomes (Adam et al., 2011; Eisenberger & Lieberman, 2004; Kessler et al., 2005; Loades et al., 2020; WHO, 2002, 2003). The experience of loneliness and isolation can be affected by early experiences (Kirby & Laczko, 2017).

Attachment is cultivated early in life through the bond between parent and child. It lays the groundwork for key emotional and interpersonal developments when the safety that is felt in those relationships becomes the template that children carry with them into their future emotional experiences (Wallin, 2007). Secure attachment is related to mentalizing, which is the ability to infer mental states to self and others that develops throughout the infant and toddler years when caregivers facilitate an awareness of intersubjectivity by distinguishing the subjective (attending to your own mental states) from the intersubjective (attending to the other person’s mental state and the difference between yours and theirs; Allen, 2006; Fonagy et al., 1998). These early developments are key for later functioning, informing abilities to make decisions, self-soothe and form healthy relationships. Attachment and mentalizing deficits are associated with a range of mental health difficulties including personality pathology and disorders like depression (Antonsen et al., 2016; Katznelson, 2014; Lee & Hankin, 2009; Mikulincer & Shaver, 2012).

Considering the vulnerability of the YA period, the potential impact of early experiences on later life and the realities of overburdened health care services it is essential that we explore different ways that YA may seek relief.

The lovingkindness meditation (LKM) or *metta bhavana* is a Buddhist meditative practice that cultivates an altruistic state of friendship or kindness to all, using phrases, images and an affective experience to embody love, care and kindness that is devoid of attachment or ego (Bodhi, 1998; Buddhaghosa, 2010; Buddharakkhita, 1995). It is most often practiced in meditation form, where the practitioner is invited to offer intentions through a series of phrases (e.g. may you be safe, may you be happy, may you be healthy and may you live with ease) to specific individuals that the practitioner is guided to bring into their awareness (Salzberg, 2011).

LKM has been shown to have a range of beneficial effects. For example, it has been shown to decrease pain and tension, anger and sadness, while also improving life satisfaction, self-care, (social) wellbeing, mental health and happiness (Boellinghaus et al., 2013; Carson et al., 2005; Fredrickson et al., 2008; Galante et al., 2016; Seppala et al., 2014; Sorensen et al., 2019; Tonelli & Wachholtz, 2014; Totzeck et al., 2020; Zeng et al., 2019). LKM has also been shown to have a positive effect on clinical symptomatology including clinical symptoms of depression, posttraumatic stress disorder (PTSD), borderline personality disorder (BPD), stress and anxiety, and the negative symptoms of psychosis (Alba, 2013; Csaszar et al., 2018; Feliu-Soler et al., 2017; Fredrickson et al., 2008; Galante et al., 2014; Graser et al., 2016; Hofmann et al., 2011, 2015; Johnson et al., 2009, 2011; Kang et al., 2014; Kearney et al., 2013; Müller-Engelmann et al., 2019; Shahar et al., 2015; Totzeck et al., 2020; Wallmark et al., 2013; Weibel et al., 2017). However, the research also suggests mixed effectiveness (Boellinghaus et al., 2014; Galante et al., 2014; Hofmann et al., 2011; Shonin et al., 2015). For example, there is evidence that LKM helps positive emotions improve but not negative emotions and that LKM can be emotionally taxing (Boellinghaus et al., 2013; Fredrickson et al., 2008, 2017).

## Aims

This study aimed to address real-world issues by exploring the potential benefits to YA of a group-based LKM by exploring the impact on connectedness and wellbeing as previous research has shown improvements in connectedness and decreases in isolation (Aspy & Proeve, 2017; Boellinghaus et al., 2013; Galante et al., 2016; Hutcherson et al., 2008; Kasket, 2012). In order to understand the potential benefits better this study also aimed to better understand the effects of LKM by exploring potential underlying mechanisms. Theories exist promoting the role of positive emotions (e.g. Broaden-and-Build theory) and perspective taking (e.g. two stage model) in understanding LKM, however these theories do not explain the complexity of the affective and interpersonal nature of LKM, critical to understanding experiences of connectedness and isolation (Fredrickson, 2004; Kristeller &

Johnson, 2005). This study hypothesised that attachment and mentalizing might contribute to the effects of LKM or play a role in how participants engage with LKM since supportive interpersonal relationships have been shown to be especially helpful, offering opportunities for connection, stability and safety, critical to cultivating “a window of opportunity for the HPA axis to recalibrate” (Gunnar et al, 2019, p.23984; Bateman & Fonagy, 2015; Levy et al., 2006; Wallin, 2007; Waters et al, 2000).

## **Method**

Considering the relative novelty of LKM as a clinical intervention, a feasibility study was deemed most suitable due to its iterative approach to assessing process and the focus on acceptability (Eldridge et al., 2016; Orsmond & Cohn, 2015; Tickle-Degnen, 2013).

Research is hampered when it does not adequately engage with these early stages of research (Whitehead et al., 2014). By embedding a small-scale pilot, this study lay the foundation for potential up-scaling without the need to “reify and trivialize concepts that may have a richness of which we cannot yet be fully aware” (Grossman & Van Dam, 2011, p. 234; MRC, 2006).

## **Participants**

48 participants were recruited, 30 of who matched the inclusion and exclusion criteria and signed informed consent forms. Two individuals dropped out leaving 28 participants who completed the first round of questionnaires. Participants were included if they were between the ages of 18-25. Although children aged 16 and older have capacity to consent most research considers anyone under 18 to be a vulnerable category, therefore participants were excluded if they were younger than 18 years (GMC, 2019). Participants were also excluded if they were older than 25 years as this is the age at which many political and social services deem adolescence to end (Stetka, 2017; Wallis, 2013). This age range has been used in previous research (Kessler et al., 2005; Kirby & Laczko, 2017). Consistent with previous research, participants with current significant mental health difficulties or with current suicidal ideation or self-harming tendencies, identified through self-report, were excluded due to their possible vulnerability to symptom exacerbation (Haverkamp, 2005). To ensure that all participants had a similar level of experience, participants who had previously participated in an official mindfulness intervention or significant regular meditation other than yoga, were excluded since research shows that over time meditation can result in trait based and neurobiological changes (Lazar et al., 2005). All participants were advised of the study’s voluntary nature and that they could discontinue at any point. Those who met the exclusion criteria were signposted to other meditation resources and mental health support services.

86% of participants identified as female, 10% identified as male and one participant identified as gender fluid. There was a range of ethnicities reported, with 48% identifying as white British (see Table 1). Descriptive data confirmed that all participants were within the required age range (18-25), and that all participants engaged voluntarily and were not experiencing current significant mental health difficulties or had concerns about their safety, including no significant substance abuse. One participant had reported engaging with meditation courses and retreats previously, while 20.7% had engaged sporadically and 75.9% had not had any prior experience.

**Table 1**

*Self-Report Demographic Data*

		%	N	Mean	SD
Age			29	22.76	1.85
Gender	Male	10	3		
	Female	86	25		
	Gender fluid	3.4	1		
Ethnicity	Asian	3.4	1		
	Bengali	3.4	1		
	Black British African	3.4	1		
	Black British Caribbean	3.4	1		
	Caucasian	3.4	1		
	Chinese American	3.4	1		
	Indian British	3.4	1		
	Indian/Asian	3.4	1		
	Mixed White	3.4	1		
	White	3.4	1		
	White Asian Mixed	3.4	1		
	White British	48.3	14		
	White European	3.4	1		
	White mixed Spanish/Armenian	3.4	1		
	White non-British	3.4	1		
Mental health difficulties <sup>a</sup>	None	82.8	24		
	Current, minor	17.2	5		
Risk <sup>b</sup>	None	96.6	28		
	Past concern	3.4	1		
Drugs & alcohol misuse	None	96.6	28		
	Past	3.4	1		
Meditation experience	None	75.9	22		
	Yes, minor (e.g. apps)	20.7	6		
	Yes (e.g. courses and retreats)	3.4	1		

<sup>a</sup> participants were asked if they experienced any mental health difficulties that they felt might become exacerbated by a meditation programme. *Current, minor* indicates participants experienced some symptoms but did not feel these would interfere with their engagement.

<sup>b</sup> participants were asked if they experienced any suicidal thoughts or engaged in any form of self harm. *Past concern* indicates participant experienced suicidal thoughts or engaged in self-harm in the past but not currently.

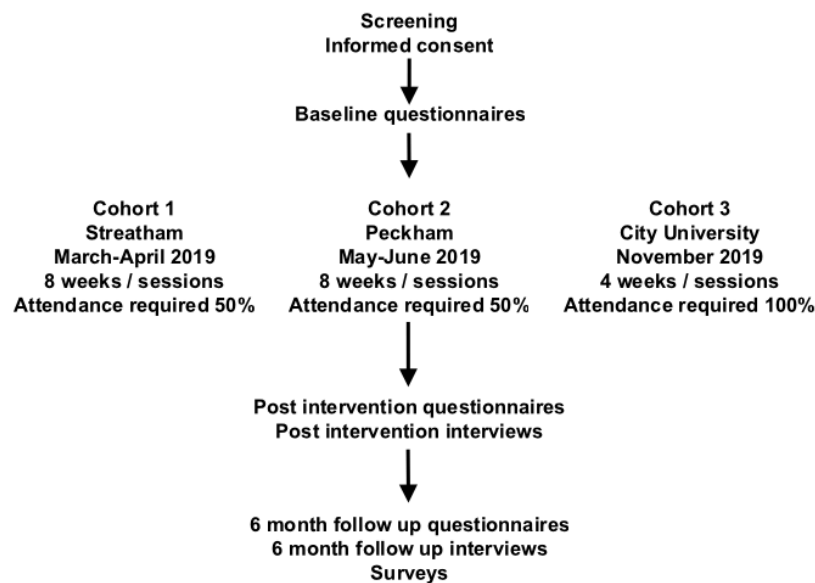
## Procedures

This study used a convergent (QUANT+QUAL) mixed methods design to facilitate a more nuanced and robust exploration of the observable reality of LKM, which increased the validity of the study and prioritised each method equally (Maxwell & Mittapalli, 2010; Creswell, 2003; Onwuegbuzie & Collins, 2007). Ethics approval was obtained from the ethics committee of City, University of London and the procedures used adhere to the tenets of the Declaration of Helsinki. Participants were recruited from the community through flyers,

newsletters, social media posts, and by word of mouth, and screened by the lead researcher during a short telephone call. Informed consent was obtained from eligible participants and on completion all participants were debriefed via email. The chronology of the study can be seen in Figure 1.

**Figure 1**

*Chronology of the Study*



Quantitative data were obtained through questionnaires and analysed using SPSS Statistics 25 for Mac. Assumptions were checked to minimize distorted data and potential inaccurate interpretations before analyses were run (Field, 2013; Tabachnick & Fidell, 2013). Qualitative data were obtained through semi-structured interviews, post session notes and a survey and analysed using Braun and Clarke's (2006) Big Q approach to Thematic Analysis (TA), which uses an organic and flexible approach to facilitate a deeper and dynamic understanding of the data. Quantitative and survey data were collected via Qualtrics, interview data were transcribed from audio to text using the digital software Trint and all qualitative data were analysed by the researcher using the digital software Nvivo. All digital software was approved by the university and was GDPR compliant.

Quantitative data were collected at three time points (pre, post and follow up), while qualitative data were collected after every session (post-session notes), at post and follow up (interviews) or towards the end of the study (survey). Using different time points,

especially a 6-month follow-up, a space was created to explore the durability of effects and to allow the developmental nature of meditation to be incorporated into the study (Galante et al., 2014; Grossman & Van Dam, 2011; Kearney et al., 2013; Trautwein et al., 2016).

### Intervention

Previous LKM research has operationalized LKM in different ways including meditation retreats, home practice, single sessions, multi-week courses and laboratory experiments, some of which have been facilitated by meditation practitioners or psychologists while others have not. No standard version of LKM exists, however the process-specific group intervention used in this study largely followed Salzberg's interpretation of LKM and was based on a multi-session programme because it was thought to be more effective at cultivating change in interpersonal relating and because non-weekly courses typically had lower effect sizes (Kang et al., 2015; Salzberg, 2002; Zeng et al., 2015).

In the current study a trained facilitator guided participants through an hour-long programme, consisting of a short grounding breathing meditation that was followed by a longer lovingkindness meditation. At the end of each session participants were given an opportunity to share their experiences within the group to foster self-reflection. Sharing and journaling were not required but encouraged.

For the first two cohorts the intervention was an 8-week programme that repeated the same hour-long intervention each week. For the last cohort adaptations were made based on participant feedback from the first two cohorts, which spread the programme out over 4 weeks. Both versions included all five stages of the practice and the standard meditative phrases, which involved holding people in mind while wishing them well (Salzberg, 2011). It was thought that a minimum of four sessions would be needed to ensure intervention saturation. In the two 8-week cohorts 40% of participants attended the required number of sessions while in the 4-week cohort no participants attended all four sessions. For further details about the intervention please contact the primary author.

### Measures

The measures included four self-report questionnaires to capture wellbeing, mentalizing, attachment, and social connectedness. There are risks to using self-report measures, especially for questions about unconscious processes like mentalizing, as our awareness of these abilities is often limited and psychological deficits might increase the likelihood of compromising answers (Fonagy et al., 2016). Although the authors of the self-report measures have taken such concerns into consideration in the construction of these

measures, this study used a convergent MM design enabling qualitative data to offer depth and nuance to the quantitative data collected.

#### *Warwick-Edinburgh Mental Well-being Scale*

The WEMWBS was chosen because of its focus on wellbeing rather than diagnoses, including “hedonic, eudaimonic and social aspects of wellbeing” (Galante et al., 2016, p.328; Tennant, et al., 2007). High total scores show better mental wellbeing and while no standard cut offs are available previous authors have used different cut offs to capture different levels of wellbeing including low/high and low/medium/high splits (Ng Fat et al., 2017). WEMWBS shows good internal consistency (Cronbach’s  $\alpha = 0.89$ ) and good test retest reliability (0.83; Stewart-Brown et al., 2011; Tennant et al., 2007).

#### *Reflective Functioning Questionnaire*

The RFQ (Fonagy, et al., 2016) is an 8-item measure that captures two subscales relating to mentalizing ability. The subscales are negatively correlated and due to reverse coding low scores on both scales reflect genuine mentalizing. RFQc measures mentalizing certainty, with low scores reflecting genuine mentalizing and high scores reflect hypermentalizing or pseudomentalizing. RFQu measures mentalizing uncertainty with low scores also reflecting genuine mentalizing but high scores reflect hypomentalizing, psychic equivalence or inability to consider the mind of another. Scores above one suggest impaired mentalizing though these must be interpreted with caution (Handeland et al., 2019; UCL, 2018). Both scales show good reliability and internal consistency, with test retest reliability ranges between 0.75 and 0.84, and Cronbach’s  $\alpha$  ranges from 0.64 to 0.71 in a sample of adults and 0.68 to 0.74 in a sample of adolescents (Badoud et al., 2015; Cucchi et al., 2018; Fonagy et al., 2016; Handeland et al., 2019).

#### *Experiences in Close Relationships-Revised Questionnaire*

The 36-item ECR-R by Fraley and colleagues (2000) was chosen because a recent meta-analysis and systematic review exploring attachment and mindfulness, indicated that it was the most frequently used measure of attachment in the literature to date, it used item response theory in its formation and was deemed more psychometrically robust compared to previous editions (Fraley et al., 2000; Stevenson et al., 2017).

ECR-R captures two subscales with Cronbach’s  $\alpha$  scores ranging from 0.90 to 0.94 and test-retest reliability ranging between 0.93 and 0.95 (Fraley et al., 2000; Shiota et al., 2006; Sibley et al., 2005). Attachment anxiety identifies fear of rejection and abandonment, and attachment avoidance identifies discomfort with intimacy and a preference for



independence. High scores indicate more attachment difficulties. No cut off scores are available for this measure, however Fraley indicates that it is possible to align the ECR-R data with Bartholomew's attachment types (i.e., secure, fearful, preoccupied, dismissive) but urges caution in doing so (Fraley, 2012).

#### *Social Connectedness Scale-Revised*

The SCS-R (Lee et al., 2001) captures the subjective experience of closeness in interpersonal relationships, with higher total scores indicating a greater sense of connectedness and belonging. The 20-item measure was chosen for its association with a more person-centred self-psychology perspective. Previous research showed Cronbach's  $\alpha$  ranges between 0.70 and 0.95 (Capanna et al., 2013; Cordier et al., 2017; Lee et al., 2001).

### **Results**

#### **Quantitative Data**

There was attrition between T1, T2 and T3 leading to substantial missing data (see Table 2), however Little's MCAR test showed that data were missing at random,  $\chi^2(42) = 38.81$ ,  $p = .612$ . The data were not normally distributed therefore non-parametric analyses were used to explore the differences between groups. Due to assumptions around linearity being met all analyses exploring relationships between measures used parametric analyses.

A Friedman's test showed no overall effect of time for wellbeing, however follow-up Wilcoxon S-R tests comparing T1-T2, T1-T3 and T2-T3, showed a significant difference between baseline and post-intervention ( $z = -3.13$ ,  $p = .001$ ), such that median wellbeing scores significantly improved between T1 and T2 (see Table 3). While 76% of participants showed wellbeing improvements post-intervention, the data also indicated that wellbeing remained in the medium range (43-60). Only connectedness showed significance between all three time points. Specifically there were significant differences between baseline and post-intervention and between post-intervention and follow-up, but not between baseline and follow-up. The mentalizing subscales did not show any significant changes over time, though mentalizing uncertainty neared significance between T1 and T2, showing some indications of mentalizing improvements.

**Table 2***Attrition and Missing Data*

Time	Task	Number of participants	
Pre-intervention	Recruitment	48	8-week: 35 4-week: 13
	Informed consent	30	8-week: 22 4-week: 8
Data collection round 1 (T1)	Data collection: Questionnaires	28 out of 29 completed	8-week: 20 out of 21 completed 4-week: 8 out of 8 completed
Intervention	Attendance	8 week: 40% attended required number of the sessions 4 week: 0% attended required number of the sessions	
Data collection round 2 (T2)	Data collection: Questionnaires	18 completed	8-week: 14 completed 4-week: 4 completed
	Interviews	7 out of 10 completed	8-week: 5 out of 7 completed 4-week: 2 out of 3 completed
Data collection round 3 (T3)	Data collection: Questionnaires	14 completed	8-week: 10 completed 4-week: 4 completed
	Interviews	5 completed	8-week: 3 completed 4-week: 2 completed
	Surveys	12 out of 18 completed	

**Table 3***Changes in the Dependent Variables Over Time Using Wilcoxon Signed-Rank*

		n	Median	Test	Increases N	Decreases N	No change N	Median difference
WEMWBS	T1	17	44.50	$z = -3.13, p = .001^{*a}$	13	2	2	3
	T2	17	51					
	T1	14	44.50	$z = -.25, p = .827^a$	6	7	1	-1
	T3	14	46					
RFQc	T1	11	51	$z = -1.92, p = .059^a$	3	8	0	-3
	T3	11	46					
	T1	17	.58	$z = -1.39, p = .181^a$	9	5	3	-.33
	T2	17	1.33					
RFQu	T1	14	.58	$z = -.53, p = .620^a$	5	8	1	-.17
	T3	14	1.08					
	T1	11	1.33	$z = -1.26, p = .250^a$	2	6	3	-.17
	T3	11	1.08					
SCS-R	T1	17	.75	$z = -1.97, p = .057^a$	3	8	6	.00
	T2	17	.33					
	T1	14	.75	$z = -.04, p = .982^a$	7	5	2	.08
	T3	14	.33					
SCS-R	T1	11	.33	$z = -.26, p = .879^a$	6	4	1	.17
	T3	11	.33					
	T1	17	86.50	$z = -3.62, p < .0005^*$	17	0	0	-6
	T2	17	95					
SCS-R	T1	14	86.50	$z = -.76, p = .473^a$	7	7	0	-1
	T3	14	76					
	T1	11	95	$z = -2.36, p = .016^{*a}$	2	9	0	-6
	T3	11	76					

<sup>a</sup>2-sided, exact significance\* significance  $p < .05$ 

Most measures were correlated at baseline except for the attachment and mentalizing subscales, especially attachment anxiety, which is unexpected considering the clinically informed robust theory about the relationship between attachment and mentalizing where insecure attachment frequently contributes to deficits in mentalizing (Huang et al., 2020). Another interesting finding is that the majority of measures no longer correlated post-intervention but did in the follow-up period. It was notable that connectedness regained its

robust associations in the follow-up period. As expected the mentalizing subscales were significantly negatively correlated with each other for each time point due to their inverse relationship, T1  $r = -.75$ ,  $p < .001$ , T2  $r = -.58$ ,  $p = .015$ , T3  $r = -.56$ ,  $p = .037$ . The attachment subscales were significantly positively associated with each other as expected, except post-intervention, T1  $r = .56$ ,  $p = .002$ , T2  $r = .40$ ,  $p = .108$ , T3  $r = .72$ ,  $p = .004$ , which is similar to prior research that found positive correlations of  $r = .40$  (Fraley, 2012).

### Qualitative Data

There were a number of phases to the qualitative analyses. While the deductive lens shaped the developing themes and subthemes from the outset an inductive phase was important as it created space for new ideas to come from the data. Themes were refined further during the writing stage to ensure each theme was clear and robust in responding to the study's research questions (Braun & Clarke, 2006). This resulted in a final four themes and eight subthemes that robustly summarised the qualitative data and contributed to a narrative that answered the research questions (see Figure 2).

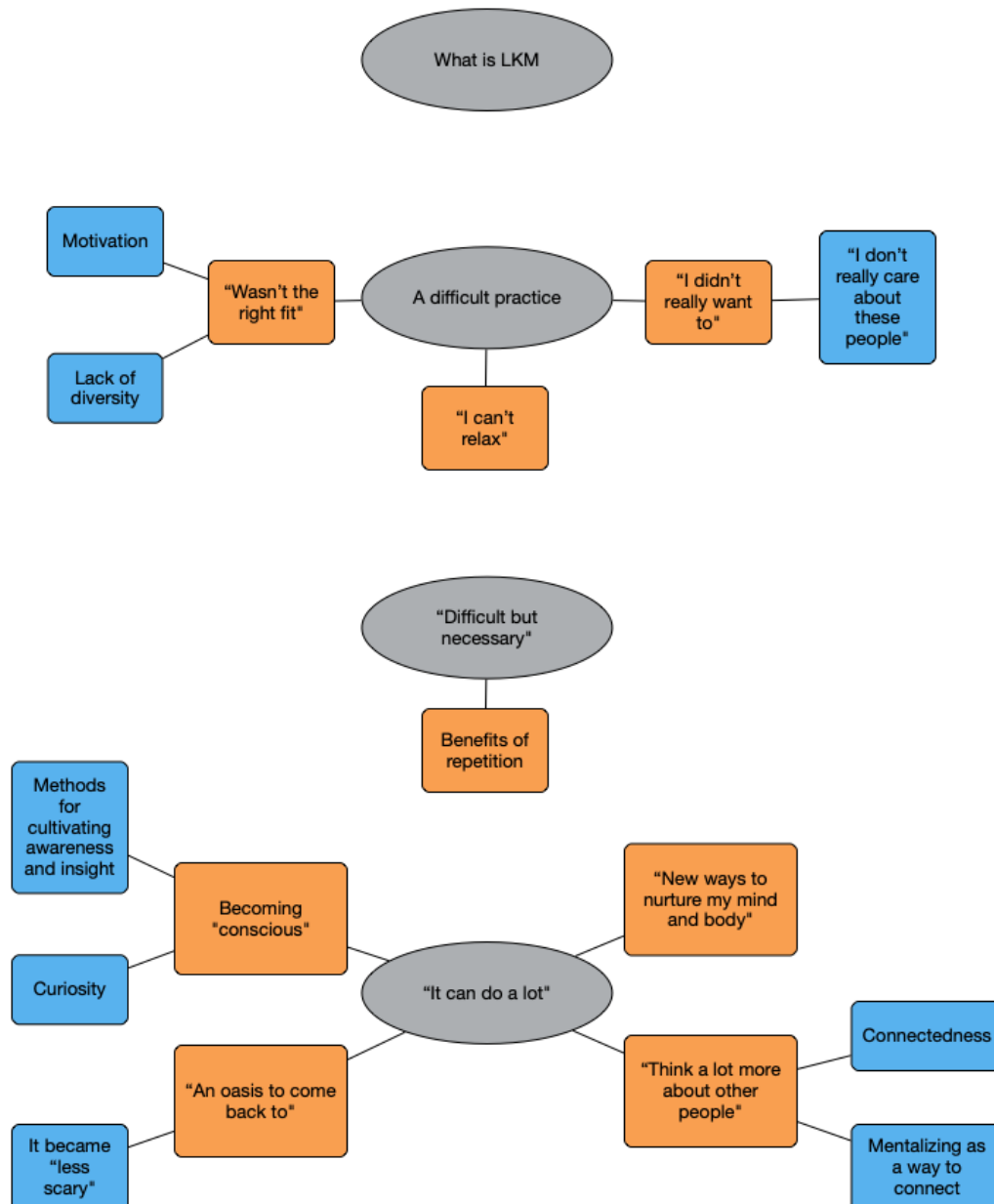
The first theme captured how participants viewed LKM (What Is LKM), capturing the diverse perspectives and the complexity of the practice. Another theme identified a range of benefits ("It Can Do A Lot") including a number of subthemes that explored how participants had found the intervention helpful, such as becoming more aware (Becoming "Conscious"), feeling calmer and safer ("An Oasis To Come Back To"), feeling more connected to themselves mentally and physically ("New Ways to Nurture My Mind and Body") and feeling more connected to other people ("Think A Lot More About Other People").

While the data suggested that participants found the intervention useful, there were also indications that participating in the intervention was challenging. For example, while the majority of participants who submitted the survey found it useful, 2 out of 12 rated their experience as predominantly unhelpful. Furthermore, the number of missed sessions and the attrition in the data collection suggested there were factors that impacted participants ability or desire to engage. For example, across all three cohorts 71.4% of participants did not complete the minimum requirements regarding intervention attendance. This was captured in the theme A Difficult Practice, which described how participants struggled with the practice. Three subthemes, "Wasn't The Right Fit", "I Didn't Really Want To" and "I Can't Relax", captured different ways that participants struggled. The first captured practical aspects of the programme that made engaging difficult but also the impact of certain beliefs or expectations. The second subtheme captured an experience that mapped onto an avoidant attachment style, while the third captured an experience that mapped onto an anxious/ambivalent attachment style. While these themes highlighted ways that participants

struggled with the programme, the final theme (“Difficult...But Necessary”) captured how engaging with the programme helped participants overcome the difficulties they had experienced.

**Figure 2**

*Final Qualitative Themes And Subthemes*



A key finding included changes over time. For example, the trend in the quantitative wellbeing data suggested that 73% of participants experienced decreases in their WEMWBS scores in the post intervention period, indicating that for a large portion of the participants wellbeing reduced and started to return to baseline in the 6-months after the intervention. However, one subtheme in particular (Benefits Of Repetition) captured the benefits of the

practice over time, with some participants noting surprise that the effects had lasted over time though others wished that the effects had lasted longer. While the quantitative data suggested that wellbeing decreased over time with some initial benefits potentially remaining, the qualitative data highlighted that repeated practice might have been a key component to longer-term benefits. As the attendance data showed, many participants did not attend the required number of sessions, which might help explain the trend in the quantitative data.

## Discussion

Prior research into LKM with a sample of previously depressed patients suggests “that participants’ responses to this practice differ widely and that a considerable number of patients seem to find it difficult to engage” (Barnhofer et al, 2010, p.22). This mixed engagement matches the current study’s results and is echoed in other research. For example, previous research has found that for some “LKM was not their choice of meditation” (Leppma & Young, 2016, p.303), that it was useful (Hofmann et al, 2015) and that 81% of participants found it acceptable (Kirby & Baldwin, 2017). This study found that 83% of participants found the intervention helpful, comparable to Kirby and Baldwin’s study, and that 76% showed improvements in wellbeing post-intervention. However, the study also showed that over time wellbeing seemed to drop to below baseline, suggesting that without continued practice wellbeing may actually decrease. Although these data were not significant and should be interpreted with caution, it may suggest that participants experienced an emotional come down. This is not uncommon and may be a result of the increased awareness cultivated during meditation (Halliwell, 2011; Su, 2015).

Overall this data sheds light on the paradoxical nature of LKM, suggesting the presence of a Kindness Paradox where LKM can be both helpful and unhelpful (Barnhofer et al., 2010; Boellinghaus et al., 2013). This should be taken into account in future applications of LKM so that space can be created for thinking about the potential difficulties of increased awareness, including connecting with suffering, which is a central facet of meditation (Kabat-Zinn, 2013). These findings share some similarity with Frederickson’s broaden-and-build theory (2014); when participants found LKM beneficial or were able to push through the challenges to benefit from it, positive emotions enabled participants to engage and benefit in a range of ways. However, this study also expands on the broaden-and-build theory, showing that psychological factors might impact the ability to experience or cultivate positive emotions (Johnson et al., 2009; Robinson et al., 2019). Therefore, this study positions the complex interplay of emotions, both negative and positive, more centrally in participants’ experience and in our understanding of LKM.

Galante and colleagues identified that “negative experiences with LKM can be divided into difficulties when practicing LKM, which were frequently mentioned, and not liking LKM, of which there are fewer entries” (Galante et al., 2016, p.337). The current data contribute to this idea, suggesting that there were difficulties associated with LKM that outweighed the dislike of it. For example, the data highlighted that prior assumptions had a large effect on how participants felt about and engaged with the programme. This study’s intervention did not include a didactic component where the intervention was explained to participants, instead creating space for participants to develop their own personal understanding of the meditation. However, both the current and previous research identified that a common complaint was “annoyance at the redundancy of the meditation verbiage” (Leppma & Young, 2016, p.303), suggesting that participants did not understand the role of repetition. A didactic component might be key for helping participants understand LKM better, including the role of the repetition. However, the study also found that some participants came to realise the benefits of repetition on their own by experiencing it, suggesting that intervention coherence was cultivated for some participants without a didactic component and that participating in the programme itself helped create changes in perception and improved engagement, reducing resistance.

While LKM has the potential to be beneficial for all, it is also possible that “LKM interventions are not suitable for everyone” (Zeng et al., 2015, p.13). For example a study by Barnhofer and colleagues found that low ruminative tendencies amongst depressed patients was associated with better engagement with LKM, suggesting that LKM may be more accessible for individuals who are not depressed or engage minimally in rumination (Barnhofer et al., 2010). There are also indications that “LKM is considered particularly helpful for people who have a strong tendency toward hostility or anger toward others or themselves” (Hofmann et al., 2015, p.2) and data from Kearney and colleagues suggest that individuals experiencing different facets of trauma may respond differently to LKM (Kearney et al., 2014). They note that LKM may be specifically useful for numbing or avoidance symptoms with research by Thompson and Waltz indicating that self-compassion relates to lower rates of avoidance but not re-experiencing or hyperarousal (Kearney et al., 2014; Thompson & Waltz, 2008). The qualitative data of this study support Kearney and colleagues’ findings that avoidance can reduce through continued practice. The current data support the benefits of practice over time; not only were there more significant correlations in the follow-up period compared to directly post-intervention but themes described the importance of engaging with LKM over a period of time.

Furthermore, fear of self-compassion (FoS) research by Kirby and Laczko found that “over a longer intervention LKM might be successful at lowering fear of self-compassion, but

over a short period, high levels of that fear may preclude participants' benefitting from it" (Kirby & Laczko, 2017, p.1897). The current research adds to this, suggesting that those with insecure attachment might benefit from a similar approach to the one described by Kirby and Laczko: "for small dosage uses of LKM it may be useful to screen out people with high fear of self-compassion, and engage them in an alternative exercise" (Kirby & Laczko, 2017, p.1897). This is not surprising considering the robust data connecting insecure attachment and FoS (Gilbert et al, 2011; Joeng et al, 2017; Mackintosh et al, 2017).

What does this all mean for the population of this study? As noted above, certain populations with specific experiences like avoidance or low rumination might benefit from an LKM type approach and individuals exhibiting avoidance and FoS may require longer term LKM practice to achieve benefits. Although at a vulnerable stage in development, young adults (YA) are also incredibly adaptive and the plasticity of the brain means that substantial life changes are possible (Dumontheil, 2015; Konrad et al., 2013). Therefore it is critical to adapt interventions to suit the specific needs of YA, taking into account who might require additional support, continued practice or a different intervention altogether. Further research should explore LKM in samples of YA who experience clinical and non-clinical symptomatology to better understand who might require what type of intervention or adjustments.

The current data adds evidence to the potential challenges but it also gives some indication of where changes can be made to make the practice more sensitive to the needs of the practitioner. Meditation programmes and other clinical interventions should take the possible risks into account and anticipate the range of experiences that YA may have and offer tailored support. For example, it is possible that when the current process specific version of LKM was practiced by meditation novices this study's intervention risked overwhelming participants without offering them alternative coping strategies, resulting in resistance and disengagement (Kearney et al., 2014). Therefore, it might be safer for novice participants to engage with a version of LKM that integrates different meditations to help participants navigate the complexities of LKM. Process specific LKM might be better suited to experienced meditators and/or potentially individuals with more secure attachment styles (Feliu-Soler, et al., 2017; Hofmann et al., 2011). This highlights the importance of a person-centred approach to meditation that integrates the individual's needs, views and experience of the practice (Lindahl et al., 2019). This is supported by other research that stresses the importance of having agency about when and how to practice LKM (Boellinghaus et al., 2013; Zeng et al., 2015). Future applications of LKM could benefit from providing individuals with better tools, like psychoeducation and grounding strategies, to help them make their own decisions about how to engage with LKM.

A key aim of this study was to explore LKM's underlying processes, which required minimising potential confounds to maximise the likelihood that the processes captured reflected LKM processes rather than other factors. This influenced the creation of the intervention, which stripped the practice down to a brief grounding exercise followed by the different LKM phases depending on the session or the cohort. However, Condon stresses that meditation involves a range of practices that are used in practice fluidly together rather than in isolation and that "the attempt to isolate an active ingredient could fundamentally change the nature of the meditation practice" (Condon, 2019, p.17). This raises questions about the validity of the intervention. This will require further research to better understand whether LKM's strength changes when combined with other meditation practices. Especially for clinical practice this may be a critical area for exploration since previous research has suggested that the difficulties of LKM were navigated using other skills including mindfulness (Boellinghaus et al., 2013). Further research will be needed to continue to explore the potential benefits and risks of a process specific LKM intervention.

### **Limitations and Future Research**

While the MM nature of this study contributed valuable insights into the impact and experience LKM there are a number of limitations that are worth noting. First, due to the small sample size and non-parametric data, analyses were required that effected the power and the conclusions that could be drawn. While this is not necessarily a limitation since the test matched the distribution of the data, it would be interesting to repeat this study with a larger sample size and parametric analyses (Field, 2013). Second, there was attrition in both the qualitative and the quantitative data collection, affecting the analyses especially post intervention and at follow up. Whilst a number of changes might have helped, such as sending reminders, using incentives, and using shorter and fewer measures and interviews, this outcome captured the complexity of participating in the programme and led to a more nuanced exploration of LKM.

Third, not only were group sizes unequal but at baseline the cohorts differed, with the 4-week cohort at City being more ethnically diverse. Whether these differences were a result of the small group size or other potentially confounding factors is unknown and could be explored through other pilot studies or by using control conditions. Since this study did not include a control condition, conclusions regarding causality and the influence of confounds are limited (Arain et al., 2010; Becker et al., 2019; Eldridge et al., 2016). Fourth, the sample was relatively homogenous, with most participants identifying as white British (48%) and female (86%), limiting the generalizability of the study. Future research would benefit from exploring LKM with more diverse populations in order to reflect the different ways that



different cultures may view and experience LKM as this could have implications for how we view, define, operationalize and measure LKM (Brown et al., 2013; Grossman, 2010; Kabat-Zinn, 2003; Kristeller & Johnson, 2005; Neff & Pommier, 2013; Zeng, et al., 2015). Fifth, while convenience samples are often used in psychological research, it is possible that this sampling approach may have contributed to a self-selection bias; those participants who wanted to meditate and benefit from meditation made contact (Zeng et al., 2015).

Additionally, the current interview sample was a random subsample that may not have accurately represented the range of experiences, impacting the reliability of the conclusions that were made (Gobo, 2004; Onwuegbuzie & Collins, 2007, 2017; Teddlie & Yu, 2007).

No process specific measure of LKM exists therefore this study was unable to measure whether the intervention actually captured the experience of LKM and how this might have changed over time. The development of a lovingkindness measure would help identify how accurately interventions are at producing a state of lovingkindness and it would contribute to understanding LKM, its underlying mechanisms, how it can be distinguished from other constructs, and how lovingkindness changes over time. This would help establish whether continued practice is needed to maintain the benefits of LKM and how individual differences, like attachment patterns, contribute to how and when state becomes trait (Kiken et al., 2015).

Finally, as a doctoral student it is also important to shed light on some of the limitations specific to training. Most training programmes do not have the time or the resources to adequately equip students to conduct MM research (Smith, 2012). Further attention should be paid to how MM and feasibility studies are integrated into doctoral training programmes as both have the potential to be valuable for counselling psychologists.

## **Conclusions**

In 1995 Baumeister and Leary wrote a seminal piece on the role of our innate human motivations to belong and to connect with others. This current study is an extension of that exploration; 25 years later we continue to explore how and why this innate motivation works and what gets in the way. Considering the reports of increasing isolation, loneliness, mental health difficulties and suicide rates, especially amongst younger generations, it is critical that we better understand the inner psychological workings of interconnectedness and ways of aiding a movement towards belonging and connectedness when this proves to be difficult. This research contributed to these explorations and identified a number of areas that require further exploration.

Meditations have a long history of being used to aide wellbeing and mental health. Although not the original intention, societies, health services, organisations and individuals

have gravitated towards them as a way to seek relief. This study explored what role one of these meditations, LKM, can play in benefitting wellbeing and mental health in YA, using a MM feasibility and pilot study. It identified and coined a new term to describe the varied experiences participants seemed to have following participation in LKM. This kindness paradox showed that although potentially challenging, by sticking with it and persisting, lovingkindness has the ability to help YA connect with themselves and others and improve their wellbeing, suggesting that love does have the potential and the power to conquer all.

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## **Part B: Counselling Psychology Doctoral Thesis**

### **The Kindness Paradox: A Mixed Methods Exploration of the Lovingkindness Meditation with a Sample of Young Adults**

Word count: 44,099

## Part B

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### Abstract

**Objectives.** The aims of this mixed methods feasibility study were to explore the potential benefits of the lovingkindness meditation (LKM) for young adults (YA) and to better understand the effects of LKM by exploring potential underlying mechanisms. **Methods.** 28 participants aged between 18-25 participated in a novel process-specific group LKM intervention. All participants completed four baseline measures, which were repeated post intervention and at a 6-month follow up. The measures included wellbeing, connectedness, mentalizing and attachment questionnaires. All participants were sent a survey towards the end of the study and a subsample of participants completed semi-structured interviews post-intervention and at follow-up. **Results.** Using parametric and non-parametric analyses for the quantitative data and Thematic Analysis (TA) for the qualitative data, this study found mixed evidence for LKM. Significant improvements were evident post-intervention for wellbeing and connectedness, and participants identified a range of benefits suggesting that LKM was helpful. However the data also suggested that engaging with LKM was challenging. For some this difficulty facilitated a deeper engagement with LKM, while for others it resulted in disengagement. **Conclusions.** These mixed results show evidence of a Kindness Paradox, identifying LKM's ability to be both helpful and challenging. These results need to be taken into account in future applications of LKM, to ensure LKM is applied in a person-centred way, respectful of each individual's need.

**Keywords:** Lovingkindness, meditation, intervention, young adults, wellbeing, connectedness

## Chapter 1: Introduction

### 1.1 Young People and Loneliness

During late adolescence and early adulthood young adults (YA) in their late teens to mid-twenties navigate a number of developmental milestones and challenges including critical areas around identity formation and interpersonal relating (Kirby & Laczko, 2017). It is a time of transition and change; it is a time when YA crave acceptance from peers and independence as they develop their identities separate from their caregivers, while also yearning for support, comfort and reassurance. Researchers have shown the complexity of this developmental stage, which includes structural and functional brain developments as well as hormonal changes (Blakemore, 2012; Crone, 2011). There is a “fundamental reorganization” (Konrad et al, 2013, p.425) that takes place as neurons are pruned to consolidate areas of use, making the brain more efficient. YA rely more on emotion regulating areas of the brain’s limbic system including the amygdala while the areas that regulate executive functioning in the prefrontal cortex (PFC) are still in the process of being pruned, resulting in an imbalance between the limbic and executive functioning areas (Blakemore, 2019; Cozolino, 2014; Mills et al, 2016). This results in increases in risk taking, anger and aggression, fluctuating moods, anxiety, hyperfocus on potential social threats, and decreases in inhibitory behaviours and changes in perspective-taking (Arain et al, 2013). Adolescence and young adulthood are vulnerable developmental periods.

Navigating the ups and downs of this developmental stage can often leave YA feeling alone and isolated. Loneliness, a “multidimensional phenomenon” (de Jong Gierveld, 1998, p.74), is arguably one of the biggest issues of the last decade especially during the recent pandemic where people of all ages, especially YA, have been socially isolated and unable to participate in their usual social engagements, the full effects of which are still being investigated (Johnson & Kendall, 2020). The experience of loneliness and isolation amongst YA is especially pernicious with between 50-70% of YA reporting these types of experiences, a much higher rate compared to other age groups (ONS, 2018, 2020). These experiences have serious implications for the developing sense of identity and mental health of YA, which in turn contribute to secondary effects such as feeling disconnected and rejected, leading to physical as well as emotional pain, and the resulting negative effects on a range of outcomes (Adam et al., 2011; Eisenberger & Lieberman, 2004; Kessler et al., 2005; Loades et al., 2020; WHO, 2002, 2003).

The social and emotional consequences of these neurobiological changes are important considering that a record number of YA are experiencing mental health difficulties and that they originate in young adulthood, with services ill-equipped to provide the support that is needed (Jurewicz, 2015; Kessler et al., 2005; Totzeck et al., 2020). Prior to the COVID pandemic NHS services were already struggling to reduce waiting times for outpatient CAMHS and adult services. It is now evident that the pressure has only increased and that YA are feeling more distressed and less supported in their mental health (Lally, 2020). It is therefore essential that we explore different ways that YA may seek relief. Since engaging with mental health services still carries a stigma for many YA in addition to it being difficult to access services, it is necessary to explore interventions that extend beyond the NHS to add value and breadth to services. This study aims to address these real-world issues by exploring the potential benefits to YA of a group-based lovingkindness meditation (LKM) that has previously been shown to improve connectedness and lessen isolation (Aspy & Proeve, 2017; Boellinghaus et al., 2013; Galante et al., 2016; Hutcherson et al., 2008; Kasket, 2012). Novel approaches are required that are effective and efficient at supporting the mental health needs of this vulnerable population (Blakemore, 2008).

## 1.2 Review of Lovingkindness Research

LKM or *metta bhavana* is a Buddhist meditative practice from the Theravada strand of Buddhism. LKM has been shown to decrease pain and tension, anger and sadness, while also improving life satisfaction, self-care, (social) wellbeing, mental health and happiness (Boellinghaus et al., 2013; Carson et al., 2005; Fredrickson et al., 2008; Galante et al., 2016; Seppala et al., 2014; Sorensen et al., 2019; Tonelli & Wachholtz, 2014; Totzeck et al., 2020; Zeng et al., 2019). LKM has also been shown to decrease clinical symptoms of depression, posttraumatic stress disorder (PTSD), borderline personality disorder (BPD), stress and anxiety, and the negative symptoms of psychosis (Alba, 2013; Csaszar et al., 2018; Feliu-Soler et al., 2017; Fredrickson et al., 2008; Galante et al., 2014; Graser et al., 2016; Hofmann et al., 2011, 2015; Johnson et al., 2009, 2011; Kang et al., 2014; Kearney et al., 2013; Müller-Engelmann et al., 2019; Shahar et al., 2015; Totzeck et al., 2020; Wallmark et al., 2013; Weibel et al., 2017).

The available research has also shown mixed effectiveness (e.g. Boellinghaus et al, 2014; Galante et al, 2014; Hofmann, et al, 2011; Shonin et al, 2015). Some studies showed that positive emotions improved while negative emotions did not (e.g. Fredrickson et al, 2008; 2017) and that although beneficial LKM could also be emotionally taxing (e.g. Boellinghaus et al, 2013). These mixed results might be informed by the psychological presentation of

participants. For example, Rockliff and colleagues found that self criticism could impact the ability to find LKM beneficial, while Barnhofer and colleagues found that participants who were high in self-focused brooding tendencies may struggle more with LKM and for whom LKM may even be counter indicative (Barnhofer et al., 2010; Rockliff et al, 2008). While the available LKM research is based on data from different populations adding breadth regarding its usefulness, the majority of research is based on American or European student samples with a majority white/Caucasian ethnic background, which limits the generalizability of the findings. More research is needed with diverse samples to explore the effects of LKM further.

A number of limitations in the available research are worth noting, including low retention rates, small sample sizes, defensive responses on self-report measures, incomplete data sets, lack of pre-post measures, not factoring in potential confounds (e.g., lack of control groups or unevenly sized groups), inexperienced facilitators and the use of different types of interventions. This last limitation is of particular interest since research to date has been based on interventions including meditation retreats, home practice, single sessions, multi-week courses and laboratory experiments, some of which have been facilitated by meditation practitioners while others have not. These different operationalisations of LKM could be useful in showing that no matter what format LKM can still have an impact. However it is also possible that some of the intervention iterations omit key factors contributing to the mixed effectiveness. For example is a key part of LKM that it is repeated and that over time this repetition wears down individual defences? Is it the presence of a safe, soothing and experienced facilitator that enables participants to persist?

### 1.3 Definition and Operationalization

LKM has been referred to in research as a process that cultivates a non-judgmental, affective and prosocial attitude. Traditionally LKM is defined as one of four immeasurables or *brahmavihara*, which are qualities of being that can be cultivated through meditation, generate prosocial attitudes and contribute to the second of the eight practices of the noble eightfold path<sup>1</sup> (Buddhaghosa, 2010; Condon et al., 2019; Zeng et al., 2019). LKM cultivates an altruistic state of friendship or kindness to all, using phrases, images and an affective

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<sup>1</sup> Buddhism is guided by the four noble truths, Buddha's first teaching, which dictate that suffering exists and that we all suffer, that suffering is caused by craving and our attachment to it (i.e., the meaning we ascribe to suffering), that suffering can end when we stop craving and attaching to it, and finally that the noble eightfold path gives us a way to do this. The noble eightfold path by which practitioners of Buddhism work towards liberation, enlightenment and an end to suffering is divided into three practices: moral conduct or *sīla* (right speech, right action, right livelihood), wisdom or *pañña* (right understanding, right thought), and mental discipline or *samādhi* (right effort, right mindfulness, and right concentration; Gilbert & Choden, 2013). The other immeasurables include compassion (*karuṇā* e.g. may all beings are free from suffering), appreciative joy (*mudita*, e.g. may all beings rejoice), and equanimity (*upekkhā*, e.g. may all beings be equal).

experience to embody love, care and kindness that is devoid of attachment or ego (Bodhi, 1998; Buddhaghosa, 2010; Buddhharakkhita, 1995; Salzberg, 2011). Salzberg describes it as a “quality of the heart” (2011, p.178), which might seem simple on the surface but what is evident from the literature is that it is anything but simple, both as an experiential practice and as a topic for research (Boellinghaus et al., 2014; Zeng et al., 2015).

As mentioned, a large limitation of the research to date is that LKM interventions used differ substantially. The majority of studies used Salzberg’s 1995 LKM as the gold standard intervention where LKM is offered in a group format and participants are guided systematically through a visualisation of different people starting with themselves, a loved one, a neutral person, someone with whom they have some difficulty and finally expanding out to all beings, while wishing these people four standard phrases relating to wellbeing. However, other previous studies used brief meditations only once, while others based their research on full retreats, blended meditations or non-meditation interventions, offering alternative, non-traditional ways of stimulating lovingkindness. These inconsistencies limit what can be attributed to LKM and the conclusions that can be drawn (Bishop, 2002; Chiesa & Malinowski, 2011; Mascaro et al., 2015; Rapgay & Bystrisky, 2009). Shonin and colleagues stress that there is a need to establish working definitions of LKM (2015). By using Salzberg’s definition and by exploring a process specific intervention as urged by previous research, this study contributes to the dialogue about definitions and operationalization of LKM (Cohn & Fredrickson, 2010; Zeng et al., 2015).

#### **1.4 Lovingkindness in Context**

Although LKM is often practiced with other meditations like mindfulness or compassion it is important to understand how it sits within the broader context and how it differs from other contemplative practices to facilitate a clearer understanding of its underlying process (Grossman & Van Dam, 2011). Meditation or *bhavana* in the ancient Pali language has become a core feature of many interventions offered in clinical and non-clinical settings where the mind and body are engaged by focusing attention on something like a sound, phrase, image, idea or thought, to cultivate awareness. The aim in Buddhist practice is to end suffering and attain enlightenment while in secular practice the aim is often to improve attention, control, self-regulation, acceptance and create a sense of calm by quieting the mind (Csaszar et al., 2018; Gilbert & Choden, 2013). These aims are reflected in the increasing research into two key Buddhist concepts, mindfulness and compassion. LKM remains comparatively under-researched (Alba, 2013; Kristeller & Johnson, 2005). Some of the research exploring LKM has focused on general outcomes often resulting from

meditation more generally such as awareness, defusion and acceptance (Graser et al., 2016; Hofmann et al., 2015; Hutcherson et al., 2008; Kok & Singer, 2017). Like other meditations LKM has been shown to effect areas of the brain like the PFC to reduce mind wandering and some research has found no difference between LKM and other meditations (e.g. Aspy & Proeve, 2017; Barnhofer et al., 2010; Brewer et al., 2011). In their meta-analytic review Galante and colleagues noted non-significant differences with both control and active control groups, suggesting LKM may in fact be quite similar in some ways to other meditations (Galante et al., 2014).

Mindfulness or *sati* in Pali is one of the most well known meditations in the West, with research showing significant benefits to mental health and wellbeing (Demarzo et al., 2015; Khoury et al., 2013). Mindfulness, the seventh of eight practices on the Noble Eightfold Path, is defined as bare attention or a process by which the practitioner fosters non-judgmental awareness of the present moment (Kabat-Zinn, 2003). Mindfulness is practiced in therapy form in Mindfulness Based Stress Reduction (MBSR) and Mindfulness Based Cognitive Therapy (MBCT) and has been operationalized using a number of different questionnaires (Park et al., 2013). There is mixed evidence on how similar mindfulness and LKM are, with some research suggesting that they result in similar outcomes, that practicing LKM improves mindfulness or that they differ, for example that mindfulness is beneficial for self-focused relating while lovingkindness fosters self-other relating and connectedness to others (Aspy & Proeve, 2017; Boellinghaus et al., 2014; He et al., 2015).

A number of authors suggest that compassion and lovingkindness share many similarities like metacognitive and interpersonal awareness, but that there are critical differences too (Block-Lerner et al., 2007; Hofmann et al., 2011). There are indications that LKM is a primarily affective experience while compassion is both affective and cognitive (Bibeau et al., 2016; Hildebrandt et al., 2017; Lippelt et al., 2014; Mascaro et al., 2015; Valk et al., 2017; Zeng et al., 2015). For example, LKM seems to share more with empathy, “feeling with another person”, which activates the pain circuitry of the brain, whereas compassion is a process of “feeling for another person”, which activates the reward circuitry of the brain (Schwartz & Sweezy, 2019, p.53). Importantly there are intentional differences in motivation and action between LKM and compassion. LKM makes no attempts to relieve suffering and is primarily focussed on cultivating a state of mind during which unconditional kindness and freedom from suffering are central regardless of the actual impact it might have (Hofmann et al., 2011). Compassion on the other hand is associated with action in its intention to address, alleviate and prevent suffering (Kirby & Baldwin, 2017; Strauss et al., 2016).

It is also possible to describe LKM as being more focused on the generating of positive intentions while allowing a range of emotional responses to come up including suffering, whereas compassion is actively focused on suffering, a more negatively valenced experience (Zeng et al., 2015, 2019). Bankard (2015) suggests the differences between compassion and LKM is developmental; LKM develops first and is followed by compassion. This is supported by the Buddhism scholar and meditator John Peacock who uses the following image to visualise the relationship between the four *brahmavihara*: “out of the soil of metta, out of the soil of friendliness, grows the beautiful bloom of compassion, to be watered by tears of joy under the cool shade of the tree of equanimity” (Peacock, 2011, part 1).

Compassion is becoming increasingly popular in the West and is practiced in therapy (e.g. Compassion Focused Therapy) and is operationalized in a number of questionnaires (Gilbert, 2014; Strauss et al., 2016). Compassion Focused Therapy (CFT) uses an evolutionary lens to understand how humans are emotionally and socially motivated to engage with themselves and others using a “clustering of emotions by function approach”, resulting in three emotion led systems: threat (“threat and harm avoidance”), soothing (“rest and digest and soothing”) and drive (“resource seeking and acquiring”) that are ideally balanced to facilitate a sense of safety and contentment (Gilbert, 2009, 2014, 2020, p.14). No similar therapeutic practices exist for LKM. Two measures were identified that explore aspects of lovingkindness however do not explore lovingkindness independently. One measure, the Lovingkindness-Compassion Scale (LCS; Cho, et al., 2018) looks at both lovingkindness and compassion, while the other, the Self-Other Four Immeasurables (SOFI; Kraus & Sears, 2009), explores all four immeasurables. This has significant implications for our understanding of lovingkindness, as there is no clear way of measuring it as a distinct construct, which contributes to the blurred methodologies of LKM, compassion and mindfulness.

### **1.5 Proposed Mechanisms So Far**

The mechanisms of LKM are poorly understood and more research is needed to understand it to optimise its potential therapeutic value (Zeng et al., 2015). The majority of research has focused on the role of positive emotions. Frederickson’s broaden-and-build theory has gained a lot of popularity and suggests that certain positive emotions like joy and love trigger a “thought-action repertoire” (Fredrickson, 2004, p.1367) that facilitates engagement with the world (broadening horizons) and that this engagement allows for discovery, which facilitates

an increase in a range of abilities (building resources). This is supported by findings showing LKM effects self-other relating, prosocial behaviour, sense of connection, loneliness, and self esteem (Hofmann et al., 2011; Hutcherson et al., 2008; Nilsson, 2016; Preckel et al., 2018; Seppala et al., 2014; Shonin et al., 2015). Fredrickson suggests that the power of love, embodied in the micro moments of positive affect expression, helps us feel part of something greater than ourselves, highlighting how positive emotions foster connection that facilitates intersubjective awareness when a deeper awareness of our interconnectedness is activated, fostering altruism and lessening ill will and resentment, enhancing resilience and consequently a sense of wellbeing (Fredrickson, 2004; Leppma, 2012; Salzberg, 2011). However, Seppala and colleagues identified that LKM may do more than increase positive emotions (2014).

Another proposed mechanism centres around perspective taking and interpersonal relating, specifically how individuals view themselves, others and the relationship between themselves and others. Kearney and colleagues note that LKM is “intended to change the orientation to oneself, others, one’s life experiences, and to result in a broadening of the range of emotional responses and choices available” (Kearney et al., 2014, p. 33). This is supported by neurobiological data showing activation in areas of the brain that are associated, not only with emotional processing and empathy, but also areas that focus on others and that are linked to Theory of Mind (ToM; Fredrickson et al., 2008; Garrison et al., 2014; Hofmann et al., 2015; Kanske et al., 2015; Lutz et al., 2008; Robinson et al., 2019; Shahar et al., 2015; Valk et al., 2017). Kristeller and Johnson’s two-stage model (2005) suggests that LKM first facilitates disengagement from behaviours and reactions (a primarily metacognitive process seen in most meditations), followed by a focus on the universal positive human capacity for connection and prosocial behaviour (Mascaro et al., 2015). The idea that stepping outside of one’s own subjective experience is what makes LKM so powerful is supported by research; LKM increases positive affect during other-referential processing, is associated with selflessness, improves aspects of empathy and perspective taking, provides self-other integration and complex understanding of others, and decreases implicit biases of others (Csaszar et al., 2018; Galante et al., 2016; Garrison et al., 2014; He et al., 2015; Hofmann et al., 2015; Hutcherson et al., 2008, 2015; Kang et al., 2014; Leppma & Young, 2016; Logie & Frewen, 2015; Stell & Farsides, 2015; Trautwein et al., 2016; Wallmark et al., 2013; Zeng et al., 2019).

Both the broaden-and-build and perspective taking theories shed valuable light on the important roles of interpersonal relating and positive emotions in understanding the effects of



LKM. However, this study feels they do not go far enough in explaining the mixed LKM evidence.

### **1.6 New Proposed Mechanism**

While compassion and LKM differ it is evident that there is some similarity in their developments and mechanisms as outlined above. Since compassion has a much richer pool of available research and has successfully transitioned from spiritual meditation to therapeutic practice, its theories can help inform LKM's potential as a therapeutic intervention. For example, Gilbert's theory of compassion involves Porges' Polyvagal Theory, which proposes that the parasympathetic nervous system, critical for the soothing system, can be activated through the vagus nerve and counteracts the sympathetic nervous system that activates the threat based fear response system (Gilbert, 2009, 2014; Porges, 2007). Research has supported this connection between practicing compassion and improvements in vagal tone and while there are debates around LKM and vagal tone there is some evidence to suggest that LKM may improve vagal tone too (Kok & Frederickson, 2010; Nickerson, 2018; Stellar et al., 2015).

Attachment, the bond between parent and child that is created early in life most notably when oxytocin sets off labor contractions, contributes greatly to how individuals regulate threat and develop their soothing and drive systems (Baumeister & Leary, 1995; Gilbert, 2009; Olff et al., 2013). Early experiences like the verbal and nonverbal communications that occur between caregiver and child become internalized and lay the critical groundwork for emotion regulation when the safety that is felt in those relationships becomes the template that infants carry with them into their future emotional experiences especially in moments of upheaval and danger, informing abilities to self soothe and form healthy relationships (Bowlby, 1969; Wallin, 2007).

The patterns created in early life influence our later life. Many therapy approaches view our current psychological difficulties from this lens. Schema therapy for example formulates that current difficulties are a result of needs that were unmet in childhood. So if an infant was not allowed to cry because this would upset their caregiver then this child may learn to inhibit this impulse and the need to feel heard would remain unmet potentially resulting in patterns including emotional avoidance (Young et al., 2006). This often results in "mental models (Bowlby's "inner working models") of self and social life" (Hazan & Shaver, 1987, p.511) that shape adult attachment styles and inform the decisions we make, the relationships we are drawn to and how we view our selves. The Adverse Childhood Experiences Study (ACES)

and follow up studies linking attachment and early adverse experiences show that adverse experiences in early life can profoundly affect adult functioning and wellbeing and that this is often mediated by attachment patterns (Corcoran & McNulty, 2018; Muller et al., 2012; Schimmenti & Bifulco, 2015; Widom et al., 2018). Considering 47% of individuals in England may experience at least one adverse experience it is important to consider the impact on YA (Bellis et al., 2014).

Typically adult attachment is categorized in three ways: secure, anxious (sometimes referred to as ambivalent or preoccupied) and avoidant attachment (Levine & Heller, 2010). Each of these attachment styles describes a distinct pattern for how someone will respond in stressful situations and how they relate to others (Mikulincer et al., 2013). These patterns are based on Ainsworth's work using the Strange Situation, which showed how young children engage with their caregivers and how they respond when confronted by a stressful situation (Ainsworth et al, 1978). These patterns have been shown to persist into adulthood (Levine & Heller, 2010; Young et al., 2006). For example, those with secure attachments typically find it easier to trust others and don't worry about abandonment or being overwhelmed by others. They are able to depend on others in times of stress but equally enjoy their independence and have developed strategies in the context of supportive interpersonal relationships that help them down-regulate their arousal system. Those with insecure attachment patterns struggle to self regulate their emotions and internal world due to the lack of internalized attachment figures as a result of their unavailability in early life. As a result "a series of strategies have developed to reduce or manage any distress experienced" (Kidd et al, 2011, p.776). Individuals with avoidant attachment styles typically find it difficult being close with or to trust others, preferring to rely on themselves rather than others, and will generally create distance from others and their own emotional experiences in order to cope (Wallin, 2007). Those with more anxious attachment styles typically respond in the opposite way and seek out proximity but to an extreme that can be suffocating. They also struggle with trust and easily feel abandoned, however in stressful situations become hypervigilant and seek closeness that usually does not result in down-regulation because of the mistrust they feel (Mikulincer et al., 2013).

Although many adults have experienced good enough parenting (Winnicott, 1991) research by Hazan and Shaver (1987) found that while 50-60% of participants showed secure attachment, 25% were avoidant and 20% were anxious. In childhood insecure attachment has been shown to affect a range of abilities. For example, children who experienced maltreatment were likely to experience worse emotion understanding and impaired theory of

mind (ToM) and that this affected their abilities in other areas of life (Pears & Fisher, 2005). These patterns extend into adulthood, with insecure attachment associated with deficits in mentalizing, including psychic equivalence, hyper- and hypomentalizing, but also personality pathology and other mental health difficulties like depression (Antonsen et al., 2016; Katznelson, 2014; Lee & Hankin, 2009; Mikulincer & Shaver, 2012).

The role of the stress response system is critical in understanding the impact that attachment has on the mind and body. Typically stress activates the amygdala, reduces prefrontal cortex (PFC) engagement, which in turn activates the hypothalamic-pituitary-adrenal (HPA) system that sends a cascade of stress hormones through the body, engaging the inflammatory response system to result in a range of chronic health conditions (Chambers, 2017; Romeo, 2013). Kidd and colleagues (2011) found that the stress hormone cortisol showed different activations depending on attachment style; compared to those who were either securely attached or dismissing-avoidant those who were fearfully attached showed lower cortisol ratings and a smaller change in cortisol likely due to the chronic activation of their stress response system.

Considering the potentially large number of individuals with insecure attachment styles and the serious implications for the developing minds and bodies of individuals, especially YA, it is important to consider ways to heal these attachment related activations.

### **1.6.1 The Healing Qualities of Others.**

There is evidence that a supportive environment “reopens a window of opportunity for the HPA axis to recalibrate”, which physiologically rebalances the threat and soothing systems (Gunnar et al, 2019, p.23984). Relationships that offer stability and safety, including the therapeutic relationship or other reparative relationships can be healing, facilitating a shift in the internal representations individuals hold and a more secure attachment pattern (Bateman & Fonagy, 2015; Levy et al., 2006; Wallin, 2007; Waters et al., 2000). While some therapies like attachment focused psychotherapy or attachment based family therapy focus specifically on attachment related activations, most psychotherapies see the therapeutic relationship as a key vehicle for psychological change (Milton, 2016; Wallin, 2007). A key aspect of the healing nature of relationships is mentalizing.

Mentalizing or “holding mind in mind” (Allen, 2006, p.3) is defined as the ability to infer mental states to self and others, which develops throughout the infant and toddler years when caregivers facilitate an awareness of intersubjectivity by distinguishing the subjective

(attending to your own mental states) from the intersubjective (attending to the other person's mental state and the difference between yours and theirs; Allen, 2006; Fonagy et al., 1998). Fonagy and Luyten (2018) suggest that mentalizing is best viewed as a multidimensional construct of polarities that are normally balanced and used flexibly depending on the context (i.e., automatic versus controlled, self versus other oriented, based on external versus internal features, and cognitive versus affective).

In healthy development, secure attachment facilitates the development of mentalizing abilities through a series of developmental stages (Wallin, 2007). Infants are born egocentric, seeing their caregivers as extensions of themselves; they cannot distinguish self from other. However, between 5 to 24 months post birth a process referred to as separation-individuation occurs where infants and later toddlers begin to distinguish self from other (Blum, 2004; Mahler, 1963). This initially occurs through physical distance (e.g. crawling, walking) and later through independent exploration within the safe presence of caregivers and with the development of unconscious internal models that contribute to a child's developing sense of self. As Gergely notes, it is around this age that "the representation of significant others in attachment relationships come to contain mental attributes" as children begin to see themselves as separate and individual entities (Gergely, 2000, p.1219). Around age four children develop an understanding of false beliefs. They begin to understand that their mind differs from the minds of others by recognizing that what they experience differs from what someone else experiences (Astington, 1994; Blakemore, 2012; Wimmer & Perner, 1983). False belief, a key part of the developing ToM abilities, is closely aligned with identity, interpersonal relating and affect regulation as toddlers begin to "anticipate the likely actions of other agents and so plan adaptive reactions" (Gergely, 2000, p.1219-1220; Bateman & Fonagy, 2015).

Fonagy and Luyten (2018) suggest that adversity effects mentalizing abilities in two keys ways. First, abuse of any kind but especially emotional neglect limits the ability to develop adequate mentalizing skills. This is followed by the development of coping strategies that, although adaptive to the adversity, create maladaptive patterns that shift the dimensions out of balance that often favour impulsive, emotion-focused mentalizing that focuses on external cues and others, causing different types of mentalizing profiles that map onto different types of psychopathology. Moments of stress, especially where attachment related stressors are activated, can exacerbate these coping strategies.

Developing balanced mentalizing abilities is considered the key agent of change in some therapies such as mentalisation-based therapy (MBT; Allen, 2006; Fonagy & Bateman, 2006). Though further research is needed to fully clarify the effectiveness of MBT, mentalizing has been linked to a number of reductions in clinical symptoms especially with regard to certain personality disorders and has also been found to improve affect regulation and perspective taking with one qualitative study finding that MBT resulted in a safe emotional experience including feeling validated, contained and less alone (Morken et al., 2019; Vogt & Norman, 2019).

Research with mirror neurons suggests that patterns of behavior that are predictable create calm in the same way that mentalizing does, suggesting that certain environments might be suitable for facilitating mentalizing (Siegel, 2011). For example, non-verbal affective right brain-to-right brain connections facilitate “synchronized interactions” that are essential for healthy development and can facilitate the creation of new internal models when early experiences have been less than optimal (Schore, 2000, p.26; Schore, 2001). These right brain-to-right brain connections involve the orbitofrontal cortex that also becomes activated during ToM tasks. Mentalizing is similar to ToM in that they both identify the ability to distinguish self from other and activate similar areas of the brain including the temporoparietal junction (TPJ) and the medial PFC (mPFC), though not exclusively (Blakemore, 2008; Mitchell et al., 2006). There is some evidence that mentalizing and ToM may engage different neural networks relating to emotional activity, with mentalizing being more affective (e.g. engages a broader neural network) and ToM being more cognitive (e.g. activation in more specific areas like the TPJ and precuneus; Molenberghs et al, 2016).

There is some indication that practicing LKM may activate both of these networks; mirror neurons may become activated during LKM when the experience of another comes alive for the meditating individual through an affective sympathetic experience (i.e. mirror neuron activation) which is then followed by the added cognitive understanding of this experience through perspective taking, self-consciousness and emotional regulation (Bibeau et al., 2016; Decety & Jackson, 2006; Gilbert, 2009; MLERN, 2012; Shonin et al., 2015; Wallin, 2007). This contributes to the available literature which suggests that LKM may create a shift in the internal landscape from self centred and rigid to seeing the self as part of the universe in more fluid ways (Bowlby, 1969; Watts, 1951).

Buber’s views on subjectivity (1937) are relevant here as LKM may facilitate a shift from the *I-it* perspective or *I* position to an *I-you* perspective (I-Thou) or *me* position, where the latter

is inherently interpersonal with one person truly engaging with the subjectivity of the other. This shift creates flexibility of thinking that is key for change in both meditation and therapy. Wallace describes the *I-it* stance as one which is fundamentally one of craving, rigidity, manipulation, conflict and distress as it encompasses only one person's perspective, whereas the *I-you* relationship "may transcend the polarity of self and other and engage with a sphere of betweenness of self and other" (2001, p.9). This shift from *I-it* to *I-you* shares parallels with mentalizing. In doing so mentalizing facilitates an understanding of behaviour, motivation and intentions because when we can imagine what someone might be experiencing in their mind then it helps us to understand why someone might behave the way they do, creating space for intersubjective awareness (Holmes, 2011; Wallin, 2007). In securely attached relationships mentalizing improves as infants shift from being egocentric (*I-it*) to intersubjective beings (*I-you*) and that practicing LKM facilitates a similar shift. No evidence was found of prior research exploring such an understanding of LKM. Therefore this study aimed to explore whether an LKM group intervention may be a fruitful way to create an environment that facilitates a reparative experience that can improve mentalizing and contribute to healing attachment related wounds by offering "second chances...to love, feel, and reflect with the freedom that flows from secure attachment" (Wallin, 2007, p.1).

### 1.7 Study Rationale

Research has found benefits of other meditations for YA like mindfulness-based approaches. The MYRIAD programme for example shows that mindfulness in schools improves wellbeing, and lowers stress and depression (Kuyken et al., 2013). Considering the news that loneliness is a pandemic concurrent to the COVID pandemic and that YA are a lost generation, it is possible that YA could benefit from an approach that builds on the research by the MYRIAD team (Johnson & Kendall, 2020). Kirby and Laczko (2017) suggest that YA may be well suited to LKM due to its focus on interpersonal functioning and developing personal insight, key areas for development in this age group, while Aspy and Proeve (2017) stress that activities that fuel social connectedness help mitigate negative physiological and psychological effects. LKM could be a suitable alternative for this population as a "low threshold treatment" (Totzeck et al., 2020, p.1) and may mitigate more severe consequences having the potential to not only reach many people, but also to contribute to a sense of connectedness and wellbeing, and may create an environment that improves mentalizing and heals attachment related wounds.

As mentioned previously attachment related difficulties have a significant impact on later functioning, therefore any intervention that soothes attachment related difficulties for YA, for

example by developing mentalizing abilities, is a valuable exploration (Wallin, 2007). The only research to date that has explicitly explored attachment in LKM identified that people with insecure attachment styles find practicing LKM difficult (e.g. participants experienced physiological reactions that suggested a threat based response) while no research has explicitly explored mentalizing, though studies have highlighted its potential role (Boellinghaus et al., 2013; Rockliff et al., 2008). Research has shown that mindfulness is a good way to improve mentalisation; therefore there is scope to suggest that LKM may do so as well (Bateman & Fonagy, 2013; Wallin, 2007). Exploring mentalising within the context of LKM is a novel contribution to our understanding of LKM.

Previous LKM research has focused on brief interventions that (cost) effectively result in mental health benefits. Research however is needed that elucidates inconsistencies, clarifies methodological limitations, explores LKM's underlying mechanisms beyond the current theories focused on positive emotions and identifies individual differences in order to better understand the potential LKM might have for YA (Block-Lerner et al., 2007; Condon, 2019; Grossman, 2010; May et al., 2014; Wallin, 2007). Therefore this study aimed to explore a process specific version of LKM and the role of attachment and mentalizing in order to better understand individual variables that may contribute to how LKM is experienced in a sample of YA and what role LKM could play in reducing loneliness and healing the wounds of early adversity that contribute to that loneliness (Zeng et al., 2015).

These explorations offer clinical benefits, drawing attention to different types of therapeutic interventions. For example, while the broaden-and-build theory shares more in common with Cognitive Behavioural Therapy (CBT; e.g. improving positive emotions and wellbeing), the exploration of underlying processes like attachment created space for a more psychodynamic focus, which is arguably more in line with the original Buddhist intention to expand consciousness and insight (Grossman, 2010; Grossman & Van Dam, 2011; Peacock, 2011). Additionally, many Eastern meditative practices like LKM view suffering as a universal given, which is similar to the "tragic and ironic view of existence" common in more psychoanalytic traditions (Leiper, 2013, p.64; Bateman et al., 2010). Conducting research with non-CBT related modalities helps ensure that a wider range of effective approaches are available in the evidence-based canon (Cooper, 2011).

However, exploring an originally spiritual practice in a non-spiritual setting introduces complications. Currently there is some debate about the use of Eastern meditative practices in Western medicine, arguing that much of the potency of these meditative practices may be

lost (Condon, 2019; Hofmann et al., 2011). For this reason the study used a process specific programme, staying as close to the original Buddhist meditation format as possible (Grossman & Van Dam, 2011). This is in contrast to previous LKM studies that offered a single, often 15 minute, version of the meditation or had separated it from the meditative aspects entirely.



## Chapter 2: Methodology

### 2.1 Study Aims

Overall this study aimed to explore two main questions: 1) whether LKM is an acceptable intervention for YA, and 2) what are the underlying mechanisms of LKM? Considering the nature of these questions and the relative novelty of LKM as a clinical intervention, a feasibility study was deemed most suitable due to its iterative approach to assessing process and the focus on acceptability (Eldridge et al., 2016; Orsmond & Cohn, 2015; Tickle-Degnen, 2013). Research is hampered when it does not adequately engage with these early stages of research (Whitehead et al., 2014). By embedding a small-scale pilot, this study lay the foundation for potential up-scaling without the need to “reify and trivialize concepts that may have a richness of which we cannot yet be fully aware” (Grossman & Van Dam, 2011, p. 234; MRC, 2006).

### 2.2 Theoretical Positioning and Approach

The theoretical underpinnings of this study were essential in identifying a suitable methodology. As Hesse-Biber writes, “methodologies are derived from a researcher’s assumptions about the nature of existence (ontology). Our ontology leads to our philosophy on the nature of knowledge building (epistemology)” (2010, p.456).

#### 2.2.1 Critical Realism

Although the majority of research into LKM is based on quantitative data viewed through a realist lens, some stress the importance of subjectivity and urge caution when using a reductionist view that might dismiss the rich aspects of life and avoid the mysterious, unknowable and paradoxical aspects of meditation (Grossman & Van Dam, 2011; Hansen, 2004; Hofmann et al., 2011; Kasket, 2012). While a certain amount of realism can be grounding “...it is impossible to produce an objective or neutral account of anything and that knowledge is always situated.” (Willig, 2016, p.7). However, phenomenological or social constructionist perspectives risks a solipsism threat that can trap the research in a never-ending cycle of subjectivity (Hansen, 2004). Pragmatic or critical realist (CR) postpositivist perspectives enable more nuanced explorations of a subject. While pragmatism is largely a practical approach, focused on finding solutions and meaning, CR is most suited with its grounding in realist ontology and constructivist epistemology (Creswell & Plano Clark, 2011). There is an inherent tension between meditation that aims for truth and insight and pragmatism that focuses on what works rather than what *is*. CR is an exercise in humility, acknowledging that knowledge is fallible and that it can benefit from multiple perspectives, acting as a gatekeeper between different views of reality, allowing for a more nuanced

perspective that allows for the complexity of phenomena like meditation to be explored transparently (Creswell, 2003; Guba & Lincoln, 1994; Ponterotto, 2005; Popper, 1963; Shannon-Baker, 2016; Willig, 2013; Zachariadis et al., 2013).

CR embodies an interactionist view, allowing an exploration of the subject's relationship with actual phenomena, the interpersonal subjective relationships, and the broader social relations and inherited structures (Alderson, 2018; Henton, 2016; Shannon-Baker, 2016; Willig, 2016). In doing so CR posits that there are real world experiences that can be known and explored empirically but that may not be measurable except through the subjective experience of it (Willig, 2013). Similar to psychodynamic psychotherapy, CR looks at what is really happening (i.e., real phenomena that are not always evident or psychological processes), what is happening manifestly (i.e., actual phenomena that are observable but not always evident such as a therapist's interpretations), and what can be recorded (i.e., empirical observations and recordings or what is observable in the therapy room; Alderson, 2018; Bhaskar, 1975). This has implications for how this study gathers information, since what is recorded might not reflect what is observable or what is really happening (Creswell, 2003; Maxwell & Mittleman, 2010; Willig, 2012, 2016). With this distinction between what exists and what is observable, CR is perfectly situated to explore complex and unconscious experiences like LKM, attachment and mentalizing.

CR gives space to both the observed and the observer as it transparently explores the dynamic interplay between the data and the researcher, stressing that the researcher may not be aware of what is really occurring but that (s)he can observe certain events that manifest from those real processes (Hansen, 2004). Lipscomb (2011) reminds us that there are risks to allowing unobservable events to be considered truth. CR's focus on falsification, that we can only know what isn't true and not what is true, helps to address this as it allows the researcher to take a step back (as is encouraged by meditation and therapy) and reflect on the data rather than accept it blindly (Popper, 1963).

### **2.2.2 Mixed Methods**

Previous LKM research has predominantly focused on quantitative studies, especially randomised control studies (RCTs). Grossman and Van Dam however stress that research needs to consider new ways of exploring meditative practices that respects the context of these practices. Counselling psychologists (CPs) are well positioned to do this, paying homage to the tradition of "between-ness" (Henton, 2016, p.137; Cooper, 2011; Kasket, 2012). Some non-RCT data exist including meta-analyses, qualitative studies and mixed

methods (MM) designs (Boellinghaus et al., 2013; Galante et al., 2016; Galante et al., 2014; Hofmann et al., 2015; Johnson et al., 2011; Rana, 2015; Zeng et al., 2015). MM studies are especially useful for exploring meditative practices for a number of reasons. First, MM are referred to as ethically responsible research that can be used to facilitate awareness and justice by deepening awareness of specific phenomena captured in qualitative data and generalising and disseminating this knowledge through quantitative data (Grossman & Van Dam, 2011; Henton, 2016; Lipscomb, 2011; Shannon-Baker, 2016; Willig, 2012). Despite there being “conflict and tension” between quantitative and qualitative methods, MM offers the possibility of integrating two approaches and bringing the best of both worlds together (McLeod, 2003, p.457; Bergman, 2010; Creswell et al., 2004; Smith, 2012; Yardley & Bishop, 2017). In doing so it allowed the strengths of one method to offset the weaknesses of the other (Creswell, 2003; Guba & Lincoln, 1994; Hanson et al., 2005).

There are a number of reasons why MM continues to lack a stable presence in research, including difficulties with MM definitions, lack of MM expertise, complexity of conducting MM research (e.g. it requires significant resources and time), and bias or preference for other approaches (Hanson et al., 2005; Leech & Onwuegbuzie, 2011; Smith, 2012). Hesse-Biber highlights that MM often favours quantitative over qualitative methods, which might be informed by the historical preference for quantitative data and experimental designs (Hesse-Biber, 2010). Using a convergent strategy is a popular and robust way to redress this (Creswell & Plano Clark, 2011).

**Convergent Design.** Convergent design, notated as QUANT + QUAL and previously known as concurrent triangulation or parallel design, allows different methods to work off each other, constructing a more robust picture of what may be real (Creswell, 2003; Creswell & Plano Clark, 2011; Jick, 1979; Madill et al., 2000; Morse, 2010; Onwuegbuzie & Collins, 2007; Smith, 2012). Although there are limitations to using a convergent design (e.g., requires expertise in two methods, sound theoretical underpinning, managing different sample sizes and types of data) it is also efficient, intuitive, allows each method to shine independently and minimises the risk of a “crisis of representation” (Onwuegbuzie & Collins, 2007, p.297; Creswell & Plano Clark, 2011).

In using a convergent design this study facilitated a more nuanced and robust exploration of the observable reality of LKM, which increased the validity of the study by creating a “dialogue between diverse perspectives on the phenomena being studied, so as to deepen, rather than simply broaden or triangulate, the understanding gained” (Maxwell & Mittapalli,

2010, p.147; Creswell, 2003; Hesse-Biber, 2010; Jick, 1979; Madill et al., 2000; Onwuegbuzie & Collins, 2007; Smith, 2012). The primary point of integration occurred at the interpretation stage to allow each method to work to its strengths while also ensuring space for dialogue (Schoonenboom & Johnson, 2017). Researcher reflexivity was deemed essential to ensure that this dialogue was created and maintained. Furthermore researcher reflexivity was important to ensure that the CR stance, that stresses context-based validity (i.e., not everything can be known), was respected (Shannon-Baker, 2016). Therefore, generalisations were used cautiously.

## **2.3 Method**

### **2.3.1 Intervention**

The intervention for this study was created using a number of sources, relying heavily on Salzberg's interpretation of the meditation especially the meditation phrases and stages, based on Buddhaghosa's instructions (Buddhaghosa, 2010; Salzberg, 2002). The intervention was also informed by other meditation facilitators and authors of previous studies with whom the primary researcher corresponded, like Finkel and Weibel, for specific wording, pacing and structure (Carson et al., 2005; S. M. Finkel, personal communication, 26 November 2018; Kornfield, 2019; Salzberg, 2011; D. T. Weibel, personal communication, 11 June 2018). The intervention was also informed by the primary researchers experience practising LKM, reading about it and attending meditation sessions run by experts, which gave her an in-depth and experiential view that informed the formation of the intervention.

To ensure some consistency with the standard LKM the intervention used all five stages of the practice and the standard meditative phrases, which involved holding people in mind while wishing them well (Salzberg, 2011). Unlike previous studies the intervention used for this study did not embed a discussion component since previous research indicated that this might act as a potential confound (Kang et al., 2015). This study aimed to find a balance between mitigating confound risks while also creating space for participant reflection and offering participants an opportunity to answer questions if any arose by creating space for questions and reflection but not including a formal discussion section.

In each cohort a group of participants came together and were guided by a facilitator through an hour-long meditation session that included a short 5-minute grounding breath meditation. The intervention was based on a multi-session programme as prior research suggested that studies with non-weekly courses had lower effect sizes (Zeng et al., 2015). Furthermore a

multi-week experiential programme was thought to be more effective at cultivating change in interpersonal relating (Kang et al., 2015).

For the first two cohorts the intervention was an 8-week programme that repeated the same hour-long intervention each week, while for the last cohort adaptations were made based on feedback from the first two cohorts, which spread the programme out over 4 weeks. Session lengths (1 hour) remained the same. Participants were encouraged to reflect on their experiences throughout, both in and between sessions, and participants were given an opportunity to share their experiences within the group to foster self-reflection. Sharing and journaling were not required but encouraged. Participants were not randomized but allocated to groups based on the timing of their participation on a first come first served basis; those who contacted the study in the spring of 2019 were included in the 8-week groups, and those who contact the study in the summer and fall of 2019 were included in the 4-week group. It is common for non-randomised pilot and feasibility studies to precede studies with randomisation especially when the study focuses on intervention development (Lancaster & Thabane, 2019).

Before using the intervention with participants it was piloted with three individuals from the primary researcher's network who did (two people) and did not (one person) have prior experience with LKM. Their feedback was incorporated into the first iteration of the intervention and the feedback from participants was incorporated into the second iteration of the intervention.

**8-Week Group.** Participants were offered the choice of when to attend to accommodate busy schedules. To ensure that the content validity was sufficient participants were required to attend at least 4 times to ensure intervention saturation. This was identified as a suitable amount of time in conversation with an expert in meditation and yoga (E. Pritchard, personal communication, 2018). Since each participant was not likely to attend each session, the sessions needed to be similar enough to ensure that participants did not miss any valuable aspect of the practice. As a result the programme repeated the same session format each week to allow participants to cultivate the practice of LKM in some depth without having to integrate new incoming information.

**4-Week Group.** Adaptations were made based on retention difficulties and qualitative feedback from participants. A 4-week programme was created where every session covered a different stage of the meditation. Participants were required to attend each session.

Session 1: Cultivate lovingkindness towards oneself first by receiving it from a loved one and then cultivating it for oneself.

Session 2: Cultivating lovingkindness for a loved one and a neutral person.

Session 3: Cultivating lovingkindness for someone with whom you have some difficulty.

Session 4: Cultivating lovingkindness for all living things.

The intervention was divided amongst these four sessions for a number of reasons: 1) allowing the stages to be explored more thoroughly, 2) ensuring each session was different, with each session covering a different phase or set of phases, 3) creating a hierarchy of increasing difficulty such that the more difficult stages followed easier ones, 4) following previous interventions that had used a similar break down between sessions, and 5) maintaining the requirement of a minimum of 4 sessions.

### **2.3.2 Facilitation**

The decision was made to separate the task of facilitating the intervention from the data collection and analysis to minimise the impact that knowledge of the participants may have had on the data collection or analysis and to minimise the influence of social desirability by the participants on the data (Haverkamp, 2005; Holloway & Wheeler, 1995; Shaw, 2003).

The primary researcher led two of the 8-week group sessions when facilitators dropped out last minute but was otherwise not involved in the facilitation of the intervention.

The facilitators comprised a combination of newly qualified yoga teachers, counselling psychologists and trainee counselling psychologists. The decision to work with these facilitators was primarily logistical as they were available and interested in dedicating time to this study. All facilitators received training<sup>2</sup> by the primary researcher to maximise intervention fidelity. Furthermore, all facilitators were encouraged to use the same script that had been created for the study, which also included detailed prompts such as when to give space to silence and when to encourage reflection. Audio recordings of each session were made to be analysed post intervention to ascertain fidelity.

### **2.3.3 Data Collection**

As a MM feasibility study the methods included both a quantitative aspect, obtained through questionnaires, and a qualitative aspect, obtained through semi-structured interviews, post session notes and a survey.

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<sup>2</sup> One facilitator was required to facilitate last minute and therefore had not received training.

**Quantitative.** Quantitative data were collected via Qualtrics, a private research software allowing digital data collection with a data protection agreement with the university. Data were collected at 3 time points (pre, post and follow up). The measures included four self-report questionnaires to capture general wellbeing (Warwick-Edinburgh Mental Well-being Scale; Tennant, et al., 2007), mentalizing (Reflective Functioning Questionnaire; Fonagy, et al., 2016), attachment (Experiences in Close Relationships-Revised Questionnaire; Fraley et al., 2000), and social connectedness (Social Connectedness Scale-Revised; Lee et al., 2001; see Table 1 for more details). There are risks to using self-report measures, especially for questions about unconscious processes like mentalizing as our awareness of these abilities is often limited and psychological deficits might increase the likelihood of compromising answers (Fonagy et al., 2016). Ideally data would be supplemented by support from third party sources (e.g. heart rate variability, cortisol, etc.), however this was not within the scope of the current study. Although the authors of the self-report measures used have taken such concerns into consideration in the construction of these measures, this study used a convergent MM design enabling qualitative data to offer depth and nuance to the quantitative data collected.

**Table 1**  
*Overview of the Measures*

	Wellbeing	Mentalizing	Connectedness	Attachment
Name	Warwick-Edinburgh Mental Well-being Scale (WEMWBS)	Reflective Functioning Questionnaire (RFQ-8)	Social Connectedness Scale-Revised (SCS-R)	Experiences in Close Relationships-Revised Questionnaire (ECR-R)
Authors	Tennant, et al., 2007	Fonagy, et al., 2016	Lee et al., 2001	Fraley et al., 2000
Summary	14-item questionnaire that measures mental wellbeing, including "hedonic, eudaimonic and social aspects of wellbeing" (Galante et al., 2016, p.328).	8-item questionnaire that measures mentalizing ability.	20-item questionnaire that measures the subjective experience of closeness in interpersonal relationships, including connectedness and belonging.	36-item questionnaire that measures adult attachment style and is useful for exploring psychological dynamic in adults especially in longitudinal designs (Fraley et al., 2000; Sibley et al., 2005). Correlational methods including regressions are advised (Fraley, 2012).
Number of questions	14	8	20	36
Subscales	No	- RFQc (questions 1,2,3,4,5,6) measures mentalizing certainty with low scores (i.e., neutral or agreement with the statements) reflecting genuine mentalizing and high scores (i.e., disagreement with the statements) reflecting hypermentalizing or pseudomentalizing. - RFQu (questions 2,4,5,6,7,8) measures mentalizing uncertainty with low scores (i.e., neutral or disagree with statements) reflecting genuine mentalizing and high scores (i.e., agreement with statements) reflecting hypomentalizing, psychic equivalence or inability to consider the mind of another (Fonagy, et al., 2016). The subscales are negatively correlated (Cucchi et al., 2018).	No	- Anxiety (questions 1-18) measures fear of rejection and abandonment - Avoidance (questions 19 – 36) measures discomfort with intimacy and preferring independence.
Total score/ average score	Total score	Average scores for each subscale (divide by 6)	Total score	Average scores for each subscale (divide by 18).
Range individual score	1 – 5 (none of the time to all of the time)	1-7 (strongly disagree to strongly agree)	1-6 (strongly disagree to strongly agree)	1-7 (strongly disagree to strongly agree)
Range total	14-70	0-3	20-120	1-7
Reverse scoring	None	Yes	Yes	Yes

Interpretation	High scores indicate better mental wellbeing. No standard cut offs are available, however when using a low/high split the following cut offs apply (Ng Fat et al., 2017): - Low mental wellbeing = 40 and below - High mental wellbeing = 59 and above OR - Low mental wellbeing = 14–42 - Medium mental wellbeing = 43–60 - High mental wellbeing = 61–70	Due to reverse coding low scores on both scales reflect genuine mentalizing. Scores above 1 suggest impaired mentalizing though these must be interpreted with caution (Handeland, et al., 2019; UCL, 2018).	Higher scores indicated greater sense of connectedness. Mean item scores 3.5 and above reflecting a greater sense of connectedness (Capanna et al., 2013).	High scores indicate more attachment difficulties. No cut off scores are available for this measure, however Fraley indicates that it is possible to align the ECR-R data with Bartholomew's attachment types (i.e., secure, fearful, preoccupied, dismissive) but urges caution (Fraley, 2012).
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Versions of these measures were chosen over other editions for a number of reasons. The 8-item mentalizing questionnaire was advised by the authors of the questionnaire over the other versions and chosen as it shows robust though limited, as it is a new measure, psychometric properties (Handeland et al., 2019; UCL, 2018). The revised 36-item attachment questionnaire was chosen because a recent meta-analysis and systematic review exploring attachment and mindfulness, indicated that it was the most frequently used measure of attachment in the literature to date, it used item response theory in its formation and was deemed more psychometrically robust compared to previous editions (Fraley et al., 2000; Stevenson et al., 2017). The 20-item connectedness measure was chosen for its association with self-psychology rather than communication and social psychology, and the wellbeing questionnaire was chosen because it wasn't clinically oriented but focused on experience rather than diagnosis (Boster et al., 2011; Galante et al., 2014; Lee et al., 2001).

**Qualitative.** Qualitative data were comprised of three types of data: qualitative semi-structured interviews, post session notes made available to the researcher, and an online survey. Participants were invited to anonymously share their thoughts after each session and an additional survey was sent round to all participants after they had participated in the study to gather additional data on the acceptability of the intervention. Interview data were collected via telephone by the primary researcher post intervention and at a 6-month follow-up in a 30-45 minute semi-structured interview created for this study and informed by previous studies (Himmelstein et al., 2012; Hofmann et al., 2015). Semi-structured interviews are popular in MM designs, however Chamberlain advocates for qualitative methods to be more than just a “drive by interview”, while Willig stresses that having an interview schedule minimises the chance that a priori theories might influence the data collection (Chamberlain, 2012, p.4; Bryman, 2006; Willig, 2013). The interview schedule was designed so that questions were open to gather as much data as possible and to minimise the impact that the assumptions of the primary researcher might have had on the questions asked, while still being representative of the topic and theories under investigation (Willig, 2013). It included specific questions about different aspects of experience to incorporate a holistic and embodied view. The primary researcher balanced her need to make sure that she understood what the participants had said with maintaining rapport (Fereday & Muir-Cochrane, 2006a, 2006b). Before and after every interview and during transcription the



primary researcher took time to capture her potential biases that might impact or inform the data in a research journal.

#### **2.3.4 Validity and Reliability**

Validity and reliability differ depending on the approach taken; internal validity is usually prioritised in quantitative studies, while external validity is highlighted in qualitative studies (Yardley & Bishop, 2017). The quantitative methods in this study have shown to be psychometrically robust (see Table 2) and external validity will be dependent on a large enough sample to gather sufficient and rich data (Willig, 2013). MM approaches create validity and reliability when the methods support and enhance each other, however Yardley and Bishop warn against formulaic application of triangulation (2017). By positioning this study in CR and being reflexive some of the risks are minimised. For example, data will initially be analysed separately to ensure that the benefits of each method and the validity of each method remain intact before integrating the findings (Yardley & Bishop, 2017).

#### **2.3.5 Inclusion/Exclusion Criteria**

Participants were YA between the ages of 18-25 who volunteered to participate in a free LKM programme and matched the inclusion and exclusion criteria. Each participant was screened by the primary researcher during the recruitment phase 1-4 weeks before the intervention began. Although children aged 16 and older have capacity to consent most research considers anyone under 18 to be a vulnerable category, therefore participants were excluded if they were younger than 18 years (GMC, 2019). Participants were also excluded if they were older than 25 years as this is the age at which many political and social services deem adolescence to end (Stetka, 2017; Wallis, 2013). This age range has been used in previous research (Kessler et al., 2005; Kirby & Laczko, 2017). Consistent with previous research, participants with current significant mental health difficulties or with current suicidal ideation or self-harming tendencies, identified through self-report, were excluded due to their possible vulnerability to symptom exacerbation (Haverkamp, 2005).

Finally, to ensure that all participants had a similar level of experience, participants who had previously participated in an official mindfulness intervention or significant regular meditation other than yoga, were excluded since research shows that over time meditation can result in trait based and neurobiological changes (Lazar et al., 2005). All participants were advised of the study's voluntary nature and that they could discontinue at any point. Those who met the exclusion criteria were signposted to other meditation resources and mental health support services.

**Table 2***Descriptive Data for Dependent Variables*

	WEMWBS <sup>a</sup>	RFQ <sup>b</sup>	SCS-R <sup>c</sup>	ECR-R <sup>d</sup>
Mean (SD)	51.61 (8.71)	RFQc 0.47 (0.49) RFQu 1.28 (0.85)	89.94(15.44) 91.90(14.83) 91 (13.83)	Avoidance 2.92 (1.19) Anxiety 3.56 (1.12)
Range	N/A	RFQc 2-0 RFQu 3-0	N/A	N/A
Power	N/A	N/A	N/A	N/A
Skew and kurtosis	Skew -0.664 (SE=0.029) Kurtosis 1.221 (SE=0.058)	N/A	Skew -0.31 to -0.50 (SD=0.17) Kurtosis -0.44 to -0.17 (SD=0.34)	N/A
Internal consistency reliability	N/A	Adults RFQc 0.296 RFQu 0.283  Adolescents RFQc 0.319 RFQu 0.257	N/A	0.90
Test retest reliability	0.83 (p<0.01)	RFQu 0.84 RFQc 0.75 (p<0.001)	N/A	*Avoidance 0.95 *Anxiety 0.93
Effect size	N/A	N/A	N/A	N/A
Correlation of subscales	Not applicable	N/A	Not applicable	0.48 (p < .001)
Cronbach's alpha	0.89  Student = 0.89  Gen population = 0.91	0.64-0.71  Adults RFQc 0.719 RFQu 0.644  Adolescents RFQc 0.739 RFQu 0.675	0.70-0.95	Avoidance 0.94 Anxiety 0.90

N/A = not available, <sup>a</sup> Stewart-Brown et al., 2011; Tennant et al., 2007, <sup>b</sup> Badoud et al., 2015; Cucchi et al., 2018; Fonagy et al., 2016; Handeland et al., 2019, <sup>c</sup> Capanna et al., 2013; Cordier et al., 2017; Lee et al., 2001, <sup>d</sup> Fraley et al., 2000; Shiota et al., 2006; Sibley et al., 2005

\* when normally distributed

**2.3.6 Recruitment and Procedures**

Initially recruitment focused on yoga studios since it was deemed likely that there would be interest in meditation there. Although the study took place in diverse communities in London, yoga studios do not always reflect the diversity of the population they are located in, therefore recruitment also occurred in the community (e.g. local shops, cafes, universities, GP practices, etc.) to maximise the likelihood that the recruited sample reflected the local population. After two cohorts the decision was made to add a third cohort to not only increase the sample size due to retention and recruitment difficulties in the first two cohorts but also to pilot the 4-week format. Initially this cohort was meant to take place at another South London yoga studio however due to low recruitment numbers this group was cancelled and an alternative group, focusing on a student population at City University, was added with the hope that this would improve recruitment and expand the diverse

representation in the study. The participants who had expressed interest in the group that was cancelled were invited to participate in the group at City University. Any data collected (e.g. screening and demographic data) from this cancelled group were not included in final analyses unless they participated in the intervention.

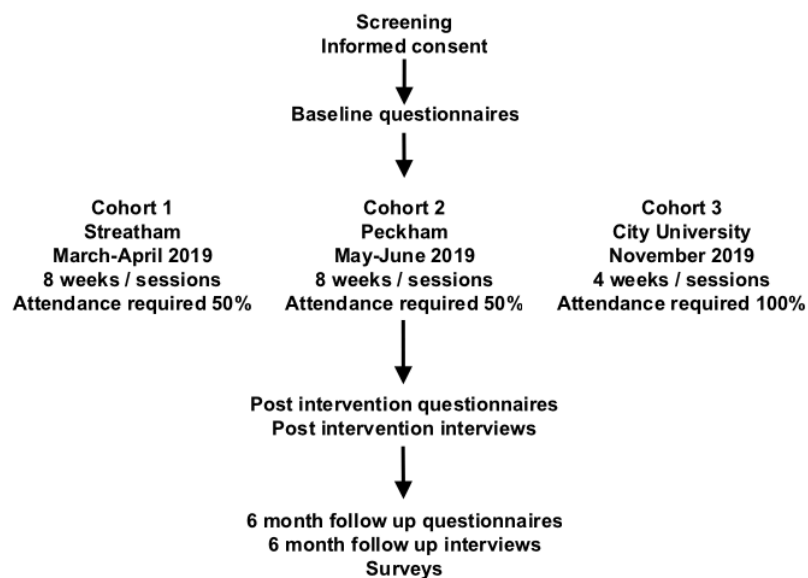
Participants were recruited through flyers, emails, university newsletters, yoga studio social media posts, and by word of mouth. All interested participants were sent the participant information sheet via email and a telephone appointment was booked in to answer questions, complete a screening for inclusion and exclusion criteria, and gather demographic data and informed consent. A copy of the signed consent form was returned to participants via email immediately after it was received. Prior to starting the intervention participants were invited to complete the first round of self-report questionnaires via the digital platform Qualtrics<sup>3</sup> (GDPR compliant). After the completion of the programme all participants were invited to complete the second round of questionnaires and a subsample of participants were invited to participate in a 30-45 minute telephone interview. At the six month follow up participants were asked to complete the final round of questionnaires and those who had been invited for the first round of interviews were invited to participate in a follow up round of interviews. Towards the end of the study an additional Qualtrics survey was sent round to all participants who had given informed consent regardless of their attendance, requesting additional information about their engagement. Informed consent was embedded into the survey. An overview of the study's timeline can be found in Figure 1.

Few studies exploring LKM have included a follow up period. A 6-month time frame was chosen because previous studies noted 3 months was not sufficient to see durability of the effects (Kearney et al., 2013), therefore 6 months was deemed a more suitable length of time to embed the practice into daily life which could lead to trait like changes, and to allow the developmental nature of meditation to be incorporated into the study (Galante et al., 2014; Grossman & Van Dam, 2011; Trautwein et al., 2016). It would also allow the primary researcher time to do initial analyses of the data to relay back to participants.

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<sup>3</sup> Two participants completed questionnaires on paper just before the start of the intervention, which were then manually entered into SPSS.

**Figure 1**  
*Study Overview*



### 2.3.7 Sample Size

A sample is needed that is representative of the population of interest, in this case YA, and reflective of a process, in this case LKM, in order to facilitate meaning making (Gobo, 2004; Onwuegbuzie & Collins, 2007; Teddlie & Yu, 2007). The sampling also needed to satisfy the MM nature of the study and the individual methods (Field, 2013; Gobo, 2004; Onwuegbuzie & Collins, 2007). Previous research into LKM has shown sample sizes of anywhere between 18 and 809. Most feasibility and pilot studies have smaller sample sizes due to their exploratory nature and the lack of prior evidence on which to base sample size, therefore they do not require formal sample size calculations.

Braun and Clarke (2006) discourage a priori sample size decisions, unlike Fugard and Potts (2015), and urge for fluidity during the data collection period. Typically regressions require 10-15 cases of data per predictor (Field, 2013). This study aimed to recruit between 15 and 30 participants, following Julious' suggestion that 12 is a suitable number of participants for a pilot study group and taking into account the likely attrition that would occur (Faul et al., 2007; Julious 2005). All eligible participants were invited to participate in the intervention, the quantitative data collection and the survey, while a randomly allocated subsample of participants (3-4 per cohort) were invited to participate in the interviews (Teddlie & Yu, 2007).

### **2.3.8 Dissemination and Participant Involvement**

During the survey participants were asked whether they would be interested in participating in a focus group to discuss their experience of the programme. Not enough participants indicated being interested in this therefore it was not actioned, however in hindsight it may have added valuable data and allowed the participants to have a more vocal voice.

### **2.3.9 Ethics**

Ethical behaviour is a core feature of counselling psychology and ethical approval is a valued aspect of the research process (BPS, 2018). Both the main study and the survey received ethical approval from City University's ethics board and complied with the five ethical considerations outlined by Willig, while also remaining open to any concerns that arose or adjustments that needed to be made (2013). It was important that participants were informed of the possible side effects when practising LKM and to ensure adequate support was available to minimise harm and maximise positive benefits. It was also important that confidentiality was maintained and the data were anonymised to ensure participant privacy. Participants were encouraged to maintain confidentiality outside of the groups to protect participant privacy. Data was and continues to be kept securely on password protected devices or cloud-based systems and will be kept for no longer than 10 years. Any data stored on cloud-based systems (e.g. Qualtrics) had agreements with the university or had a clear policy that they did not own the data and were GDPR compliant.

### **2.3.10 Resources**

Only the survey portion of the study included participant compensation via a £10 gift voucher as part of a raffle system to encourage participants to complete the survey after they had participated in the intervention (Bower et al., 2014; Brueton et al., 2014). Resources, including the location and items used for the programme such as mats, were made accessible by the yoga studios, City University, and the City University counselling psychology research clinic.

## **2.4 Analytic Strategy**

### **2.4.1 Hypotheses**

Typically feasibility and pilot studies do not make treatment comparisons, assess effectiveness or use hypothesis testing due to their exploratory nature and low power as a result of low sample size (Tickle-Degnen, 2013; Whitehead et al., 2014). Although hypothesis testing is discouraged, exploratory analyses are routinely conducted, though must be interpreted cautiously (Arain et al., 2010). Analyses will focus on qualitative

descriptions, descriptive statistics and initial explorations of the data paying particular attention to acceptability and context based validity (Arain et al., 2010; Tickle-Degnen, 2013).

In order to give the analysis a focused direction, research questions were devised to facilitate a targeted exploration of the data, an overview of which is shown in Table 3. The first series of questions focused on acceptability since previous research found that LKM has been considered acceptable with different populations, types of measurements and approaches. The study hypothesised that participants would find LKM acceptable as indicated by improvements in wellbeing post intervention and in medium to strong effect sizes, and that improvements would be maintained in the follow up period. This would be reflected in the qualitative data in participants' description of LKM in positive ways. However the study also hypothesised that participants might describe LKM as a difficult practice. The final questions focused on understanding LKM and hypothesised that attachment, mentalizing and connectedness would play a vital role in participants' experience of LKM. This would be evidenced by the relationships amongst the measures, both correlational and predictive, and by participants' understanding of their experience, however because there is limited prior research these hypotheses are exploratory.

**Table 3**

*Overview of Hypotheses, Analysis Type and Research Questions*

		Research question	Type of analysis	Hypothesis
Hypothesis 1: Acceptability	Q1	Does wellbeing increase between T1 and T2 and is this maintained between T2 and T3? What are the effect sizes of the intervention?	Quantitative	Participants would find LKM acceptable as indicated by improvements in wellbeing post-intervention and that this would be maintained in the follow-up period. The intervention would have a medium to strong effect size, similar to other meditation interventions.
	Q2	Do participants find the intervention useful? What was difficult?	Qualitative	Participants would describe LKM in positive ways while also identifying that it was a difficult practice.
Hypothesis 2: Understanding LKM	Q3	Do the wellbeing, mentalising, connectedness and attachment measures and subscales correlate?	Quantitative	Mentalizing, connectedness, attachment, wellbeing and attendance would correlate.
	Q4	Is there a significant predictive relationship between the measures?	Quantitative	There would be a predictive relationship between the measures such that attachment would predict wellbeing, mentalizing, connectedness and attendance.
	Q5	Do participants make reference to attachment and mentalizing related factors?	Qualitative	Participants would make reference to attachment and mentalizing related factors
	Q6	Do participants draw links between mentalizing and attachment related patterns and intervention impact?	Qualitative	Participants would draw connections between the impact the intervention had for them and mentalizing and attachment related patterns.

A decision was made against transforming the two strands of the mixed methods (MM) data into the same method, for example by converting the qualitative data into numerical values that could be explored using quantitative analyses. In doing so this study maintained the richness of each approach, a key reason for using a MM methodology (Creswell & Plano Clark, 2011). Therefore, the two strands were analysed separately and triangulated afterward (Creswell & Plano Clark, 2011; Hanson et al., 2005).

#### **2.4.2 Quantitative Approach**

The majority of research into LKM has focussed on parametric testing including multivariate analyses, correlations and hierarchical regressions, which are often used in process research (Alba, 2013; Carson et al., 2005; Frick et al., 2020; He et al., 2015; McLeod et al., 2013). Creswell and Plano-Clark suggest that in MM descriptive, inferential statistics and effect sizes are most suitable (2011). Due to the exploratory nature of the study both significant and non-significant data (e.g. trends) were reported (Arain et al., 2010).

Data were collected, reversed scored and subscales were created in Qualtrics according to each questionnaires' guidelines. The final data were entered into SPSS Statistics 25 for Mac for statistical analyses. If data had not been collected in Qualtrics, these were entered manually into SPSS. Assumptions were checked to minimize distorted data and potential inaccurate interpretations before analyses were run (Field, 2013; Tabachnick & Fidell, 2013).

#### **2.4.3 Qualitative Approach**

Previous research has explored LKM using different qualitative methods including Interpretative Phenomenological Analysis (IPA), Content Analysis and Thematic Analysis (TA). The IPA approach used by Boellinghaus and colleagues (2013) facilitated an exploration of individual experience and the meaning ascribed to their experience using a double hermeneutic approach that used a meta approach focused on making sense of participants' sense making. While this approach could have mirrored the meditative focus where stepping back is a key factor, IPA is not well suited to explaining phenomenon, focusing generally on describing it in great detail (Willig, 2013). IPA was therefore not suitable for this study's aim to better understand and explain LKM. Rana (2015) and Hofmann and colleagues' (2015) use of content analysis facilitated an identification of themes, taken at face value and not explored for deeper meaning. While useful for describing and capturing general conceptual themes, content analysis is often reductive, disregards context and does not allow for an exploration of nuance and depth that was

necessary for this study's focus on a complex and mysterious practice such as LKM (Elo et al., 2014; Hsieh & Shannon, 2005).

TA systematically detects and organises data to help identify common themes, look at connections between these themes and in doing so give meaning to the data (Braun & Clarke, 2012; Joffe, 2012). As such it is often the foundation of other approaches such as content analysis, grounded theory and IPA, though has recently also been recognised as a standalone approach (Braun & Clarke, 2021; Willig, 2013). Approaches like IPA and grounded theory are methodologies in their own right, backed by strong theories and strict procedures, whereas TA is described as theoretically flexible, adaptive to the context of the study (Braun & Clarke, 2021). TA is therefore useful in MM research as it affords flexibility, focusing on the method not the approach, and although TA is often criticised for being too flexible or having potential to fabricate evidence, it is well evidenced and frequently used (Boellinghaus et al., 2013; Braun & Clarke, 2006, 2012; Hansen, 2004; Hofmann et al., 2015; Willig, 2013).

Galante and colleagues (2016) used TA in a MM context to facilitate an exploration of processes of change, intervention acceptability, participant experience, theoretical applicability, and to contextualise the findings. This is similar to the aims of the current study suggesting that TA could be a useful approach. However, one of the limitations of Galante and colleagues' study is that the analyses were surface oriented and would not allow a fuller exploration of factors such as unconscious or unstated phenomena. While a codebook TA approach or qualitative content analysis could have been used to explore patterns in the data, Braun and Clarke's reflexive TA (2006, 2020) was deemed more suitable for explorations of psychological phenomena as it captures nuances, reflecting what is going on at the surface (manifest or semantic) and what might be happening at a deeper level (latent). This study's focus on conscious and unconscious processes benefitted from such an approach, allowing space for both explicit and implicit themes to be conceptualised (Fonagy et al., 2016).

The study chose reflexive TA to facilitate a qualitative analysis that was respectfully suspicious of the data, combining inductive (bottom up) and deductive (top down) analyses to not only explore the study's research questions but also to keep the researcher's mind open to possible themes not considered before, reflecting both the feasibility nature of the study and to contribute to the CR process of falsification (Braun & Clarke 2006, 2012, 2013; Hesse-Biber, 2010; Popper, 1963; Wallace, 2001). Furthermore, unlike the other



approaches mentioned, reflexive TA matches the CP reflexive stance that orients the analysis within a particular context, including the researcher's subjective lens but also the socio-cultural context, allowing the researcher to be a storyteller weaving together the different strands of information, also mirroring the MM nature of the study (Braun & Clarke, 2006, 2020; Willig, 2013).

This study used the Big Q approach to TA that sees TA as a method in its own right and uses an organic and flexible approach to facilitate a deeper and dynamic understanding of the data (Terry et al., 2017). As advised by Braun and Clarke (2006) the researcher engaged in a dynamic process using the six phases of analysis, moving between codes and themes, and across cases to find meaning and to make sense of all the data within the broader context of the study and the study's aims, unlike IPA which focuses on each case in turn before exploring across cases (Braun & Clarke, 2013; Willig, 2013). There were limits to how detailed the analyses could be due to the MM nature of the study and practical constraints including word count, therefore reflexive TA was considered a more suitable approach compared to grounded theory or IPA that depend on all data being analysed in detail (Braun & Clarke, 2021). Reliability was aided by following Braun and Clarke's rigorous and systematic analytic process (Joffe, 2012).

The interview data were audio recorded, transcribed from audio to text using the digital software Trint, checked and analysed by the researcher using the digital software Nvivo. The text was transcribed orthographically including hesitations (e.g. uhm, ahh), cut offs (represented by a -), uncertainty about spoken text (best estimate in brackets), laughter (stated in brackets), and pauses (stated in brackets) to allow exploration of potential latent meaning (Braun & Clarke, 2012). Survey data were collected using Qualtrics and transferred into NVivo. Using a mechanical aid such as NVivo facilitated an exploration of patterns in the data more easily, transparently and rigorously (Braun & Clarke, 2013; Joffe, 2012). Complete coding was used to ensure potentially relevant codes were not omitted (Braun & Clarke, 2013). All software programmes were GDPR compliant. Although there are benefits to having a second coder analyze the same data for interrater reliability, one could argue that the analysis itself is a subjective experience and that this should be owned (Morse, 2010; Terry et al., 2017; Willig, 2013).

## Chapter 3: Quantitative Findings

### 3.1 Introduction

The data were checked for accuracy of reverse coding, accuracy of missing data labels and incorrect entry including duplicates (Tabachnick & Fidell, 2013). Qualtrics facilitates forced responses; therefore participants were encouraged to answer every question, limiting the amount of missing data. One participant submitted an incomplete questionnaire at baseline. There is no clear indication why the questionnaire was not completed, however this participant opted out of future questionnaires, therefore it seems evident that this was a conscious decision and not an error. There was attrition between T1, T2 and T3 in both versions of the intervention leading to substantial missing data (see Table 4), however Little's MCAR test with Expectation Maximisation analyses showed that data were missing at random (MCAR),  $\chi^2(42) = 38.81$ ,  $p = .612$  (Dempster et al., 1977; Little, 1988; Rubin, 1976).

**Table 4**

*Attrition and Missing Data*

Time	Task	Number of participants	
Pre-intervention	Recruitment	48	8-week: 35 4-week: 13
	Informed consent	30	8-week: 22 4-week: 8
Data collection round 1 (T1)	Data collection: Questionnaires	28 out of 29 completed	8-week: 20 out of 21 completed 4-week: 8 out of 8 completed
Intervention	Attendance	8 week: 40% attended required number of the sessions 4 week: 0% attended required number of the sessions	
Data collection round 2 (T2)	Data collection: Questionnaires	18 completed	8-week: 14 completed 4-week: 4 completed
	Interviews	7 out of 10 completed	8-week: 5 out of 7 completed 4-week: 2 out of 3 completed
Data collection round 3 (T3)	Data collection: Questionnaires	14 completed	8-week: 10 completed 4-week: 4 completed
	Interviews	5 completed	8-week: 3 completed 4-week: 2 completed
	Surveys	12 out of 18 completed	

### 3.2 Descriptive Analyses

86% of participants identified as female, 10% identified as male and one participant identified as gender fluid. There was a range of ethnicities reported, with 48% identifying as white British (see Table 5). Descriptive data confirmed that all participants were within the required age range (18-25). All participants engaged voluntarily and were not experiencing current significant mental health difficulties or had concerns about their safety, including no significant substance abuse. One participant had reported engaging with meditation courses

and retreats previously, while 20.7% had engaged sporadically and 75.9% had not had any prior experience.

**Table 5**

*Self-Report Demographic Data*

		%	N	Mean	SD
Age			29	22.76	1.85
Gender	Male	10	3		
	Female	86	25		
	Gender fluid	3.4	1		
Ethnicity	Asian	3.4	1		
	Bengali	3.4	1		
	Black British African	3.4	1		
	Black British Caribbean	3.4	1		
	Caucasian	3.4	1		
	Chinese American	3.4	1		
	Indian British	3.4	1		
	Indian/Asian	3.4	1		
	Mixed White	3.4	1		
	White	3.4	1		
	White Asian Mixed	3.4	1		
	White British	48.3	14		
	White European	3.4	1		
	White mixed Spanish/Armenian	3.4	1		
	White non-British	3.4	1		
Mental health difficulties <sup>a</sup>	None	82.8	24		
	Current, minor	17.2	5		
Risk <sup>b</sup>	None	96.6	28		
	Past concern	3.4	1		
Drugs & alcohol misuse	None	96.6	28		
	Past	3.4	1		
Meditation experience	None	75.9	22		
	Yes, minor (e.g. apps)	20.7	6		
	Yes (e.g. courses and retreats)	3.4	1		

<sup>a</sup> participants were asked if they experienced any mental health difficulties that they felt might become exacerbated by a meditation programme. *Current, minor* indicates participants experienced some symptoms but did not feel these would interfere with their engagement.

<sup>b</sup> participants were asked if they experienced any suicidal thoughts or engaged in any form of self harm. *Past concern* indicates participant experienced suicidal thoughts or engaged in self-harm in the past but not currently.

### 3.3 Checking Assumptions

#### 3.3.1 Normal Distribution and Outliers

Exploring outliers and assessing the normality of the distribution of the data is necessary for statistical analyses to be reliable and to minimize the likelihood of erroneous Type 1 or Type 2 errors (Field, 2013). In order to ascertain whether the data were normally distributed, skew and kurtosis were examined visually and using z-scores, calculated by dividing the score by the standard error (SE; Field, 2013). Due to the small sample size a z-score cut-off value of 1.96 was used with a significance value of  $p < .05$  (Field, 2013). As can be seen in Table 6, the only data that had a z-score above 1.96 was ECR-R anxiety at T3, suggesting significant skew or kurtosis for this measure at this time. Additionally, both Shapiro-Wilk (SW) test and Kolmogorov–Smirnov (KS) tests were run to assess normality of distribution. SW was

preferred over KS due to the small sample size and better accuracy (Field, 2013). These tests indicated that only two measures showed non-normal distribution, namely RFQu at T1 and ECR-R anxiety at T3. A visual inspection of histograms and Q-Q plots indicated that a number of measures may have non-normally distributed data but that this might not be captured in the analyses above due to the small sample size. The data were visually examined for outliers using boxplots. The only measure with outliers was ECR-R anxiety at T3 in the 8-week group, which may partially explain the non-normal distributions.

**Table 6**

*Skew, Kurtosis, Shapiro-Wilk and Kolmogorov–Smirnov for All Measures*

Measure	Time	Mean (SD)	Range	Skew (SE)	Z score	Kurtosis (SE)	Z score	Kolmogorov- Smirnov <sup>a</sup>	Shapiro-Wilk
WEMWBS	T1	47.64 (10.26)	32-60	-.13 (.66)	-.20	-1.75 (1.28)	-1.37	D(11)=.22, p=.150	D(11)=.89, p=.144
	T2	52.91 (8.30)	38-70	.33 (.66)	.05	1.24 (1.28)	1.00	D(11)=.15, p=.200 <sup>b</sup>	D(11)=.97, p=.855
	T3	47.55 (7.82)	35-60	-.04 (.66)	-.06	-.94 (1.28)	-.73	D(11)=.12, p=.200 <sup>b</sup>	D(11)=.98, p=.956
RFQc	T1	1.48 (.91)	.17-2.83	-.06 (.66)	-.09	-1.37 (1.28)	-1.07	D(11)=.13, p=.200 <sup>b</sup>	D(11)=.95, p=.669
	T2	1.59 (.79)	.33-2.67	-.11 (.66)	-.17	-.88 (1.28)	-.69	D(11)=.17, p=.200 <sup>b</sup>	D(11)=.934, p=.491
	T3	1.33 (.69)	.17-2.33	.07 (.66)	.11	-.67 (1.28)	.52	D(11)=.14, p=.200 <sup>b</sup>	D(11)=.95, p=.700
RFQu	T1	.36 (.42)	.00-1.00	.71 (.66)	1.08	-1.47 (1.28)	-1.15	D(11)=.31, p=.003*	D(11)=.78, p=.005*
	T2	.23 (.24)	.00-.67	.71 (.66)	1.08	-.84 (1.28)	-.66	D(11)=.24, p=.086	D(11)=.86, p=.055
	T3	.26 (.22)	.00-.67	.39 (.66)	.59	-.35 (1.28)	-.27	D(11)=.18, p=.200 <sup>b</sup>	D(11)=.91, p=.238
SCS-R	T1	88.91( 20.35)	56-115	-.20 (.66)	-.30	-1.25 (1.28)	-1.00	D(11)=.16, p=.200 <sup>b</sup>	D(11)=.94, p=.541
	T2	94.82 (17.71)	65-118	-.18 (.66)	-.27	-1.13 (1.28)	-.88	D(11)=.15, p=.200 <sup>b</sup>	D(11)=.95, p=.598
	T3	86.27 (20.86)	59-116	.11 (.66)	.17	-1.53 (1.28)	-1.20	D(11)=.12, p=.200 <sup>b</sup>	D(11)=.93, p=.401
ECR-R Anxiety	T1	3.11 (1.57)	1.00-5.61	-.08 (.66)	-.12	-1.23 (1.28)	-.96	D(11)=.16, p=.200 <sup>b</sup>	D(11)=.93, p=.442
	T2	2.48 (1.11)	1.06-4.39	.26 (.66)	.39	-.94 (1.28)	-.73	D(11)=.15, p=.200 <sup>b</sup>	D(11)=.95, p=.633
	T3	2.80 (1.35)	1.50-6.06	1.45 (.66)	2.20*	2.56 (1.28)	2.00*	D(11)=.18, p=.200 <sup>b</sup>	D(11)=.86, p=.049*
ECR-R Avoidance	T1	2.36 (1.14)	1.00-4.00	.29 (.66)	.44	-1.58 (1.28)	-1.23	D(11)=.15, p=.200 <sup>b</sup>	D(11)=.90, p=.191
	T2	2.24 (.85)	1.28-3.50	.20 (.66)	.30	-1.77 (1.28)	-1.38	D(11)=.17, p=.200 <sup>b</sup>	D(11)=.89, p=.131
	T3	2.51 (.91)	1.33-4.00	.35 (.66)	.53	-.66 (1.28)	-.52	D(11)=.16, p=.200 <sup>b</sup>	D(11)=.92, p=.294

<sup>a</sup> Lilliefors Significance Correction

<sup>b</sup> This is a lower bound of the true significance

\* significant values

### 3.3.2 Linearity

In order to explore relationships in the data a number of assumptions need to be checked. Durbin-Watson assesses independence of observation and was run for the variables at each time point, T1=2.30, T2=1.78, T3=2.57. All three values are close to 2 suggesting that there was independence of errors (Field, 2013). Visual inspection of plots of studentized residuals

and unstandardized predicted values suggested that the data showed linearity and homoscedacity and that there was equal variance for all values. Multicollinearity was assessed to see whether the independent variables were highly correlated. The tolerance values were all above 0.1 at all three-time points suggesting independence between the variables. None of the independent variables exceeded a correlation of .70 except for the variables that were expected to be highly correlated (i.e., RFQ subscales). Visual inspection of P-P plots indicated that the values were normally distributed.

### 3.3.3 Assumption Decisions

The data were deemed not normally distributed therefore non-parametric analyses were used to explore the differences between groups. Due to assumptions around linearity being met all analyses exploring relationships between measures used parametric analyses (Vargha & Delaney, 1998). The intention of the study had been to run all parametric tests, however due to small sample size, the presence of variance in the data and the presence of outliers, non-parametric tests were deemed more appropriate due to their use of rank data, which has been required before in LKM research (Hoge et al., 2013). Results will need to be interpreted with caution due to the sample size and the reduced power in non-parametric tests (Field, 2013; Laerd, n.d.). Outliers were not removed considering the exploratory nature of the study and the possibility that the outlier data indicated important experiences. Analyses comparing groups did not include ECR-R data as these data are best suited to correlational and regression analyses.

## 3.4 Primary Analyses

### 3.4.1 Attachment

In order to explore the role of attachment, new variables were computed using the attachment subscales to identify secure and insecure attachment patterns according to Bartholomew's distinction between secure, dismissive, fearful and preoccupied attachment styles (Fraley, 2012; Table 7). This identified that the attachment scores of the 28 participants who completed ECR-R at baseline fell predominantly in one of the three insecure attachment categories (68%).

**Table 7**

*Attachment Patterns*

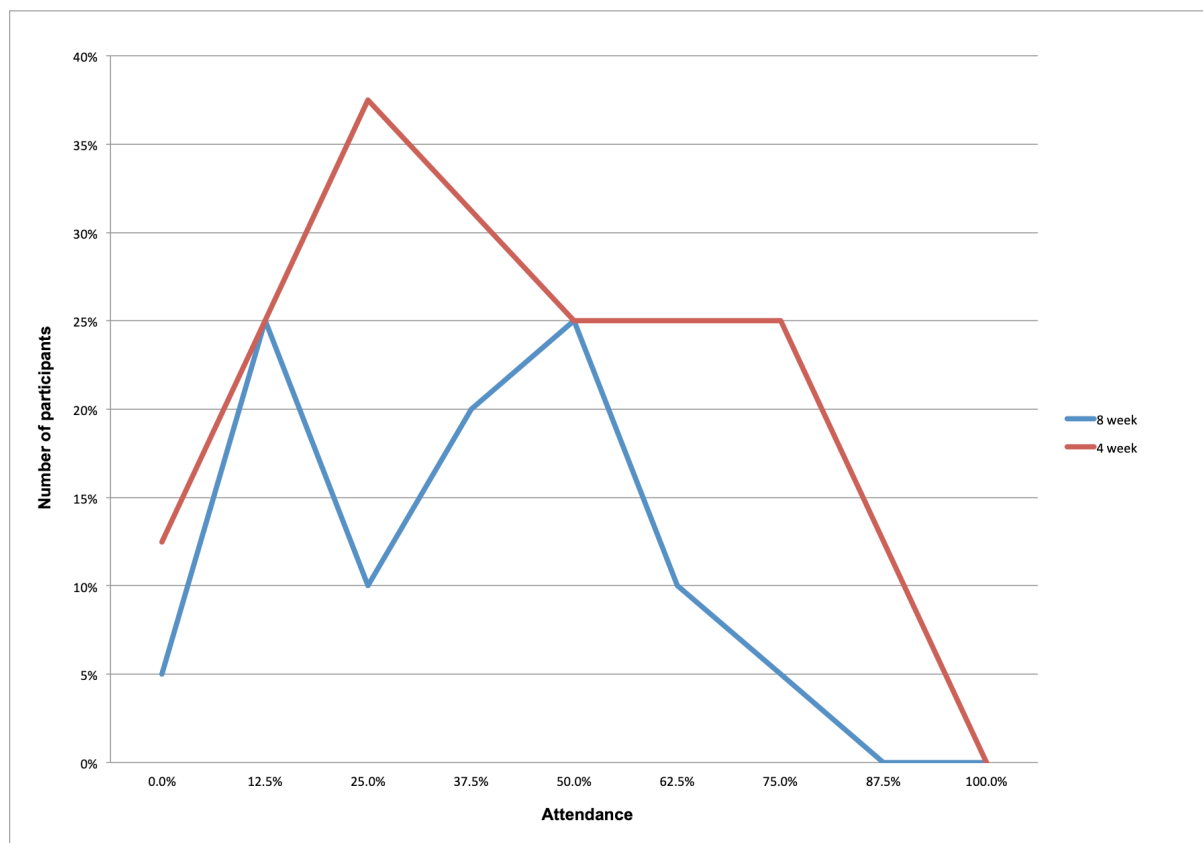
Attachment pattern	Percentage (%)	Fraley's formula
Secure	32	ECR-Ranx<3.97, ECR-Ravoid<2.75
Dismissive	18	ECR-Ranx<3.97, ECR-Ravoid>=2.75
Fearful	32	ECR-Ranx>=3.97, ECR-Ravoid>=2.75
Preoccupied	18	ECR-Ranx>=3.97, ECR-Ravoid<2.75

### 3.4.2 Attendance

71.4% of participants did not complete the minimum required number of sessions (i.e., 50% in the 8-week course and 100% sessions in the 4-week course); in the 8-week group 60% of participants did not complete the minimum required sessions and in the 4-week group no participants completed the minimum requirement (see Figure 2 for an overview of attendance rates per group). Follow-up surveys were administered to shed light on the possible reasons for this attrition. All data will need to be interpreted with caution considering more than half did not receive what was thought to be a necessary amount of the intervention.

**Figure 2**

*Attendance Rates Comparing 8-week and 4-week Group*



### 3.4.3 Intervention Type and Location

In order to compare group differences at baseline, Mann Whitney U tests and Kruskal-Wallis tests were run to check the distribution of the rank data comparing the two intervention groups (8- vs 4-week) and the three locations (Streatham, Peckham, City University) for each measure at T1. The Mann-Whitney U tests indicated no significant difference between the 8- and 4-week groups using the exact sampling distribution for U (Dinneen & Blakesley, 1973). This was supported by a visual inspection, suggesting the distribution of the data

were similar between the groups. Looking at the measures across location, significant differences for wellbeing were found (see Table 8). Follow-up pairwise comparisons using the Bonferroni correction for multiple tests and the exact significance value indicated that the differences for wellbeing at T1 lay between the Peckham and Streatham group ( $U=9.10$ ,  $z=2.48$ ,  $p=.013$ ), suggesting that wellbeing was generally better at baseline in the Streatham compared to Peckham group. This will need to be considered in the final discussion.

Since there was no significant difference between the 8- and the 4-week group these data were analyzed together. Furthermore, chi-square tests indicated that there were no significant differences between the 8- and 4-week groups for gender, prior meditation experience, mental health difficulties, risk factors or substance use. Ethnicity did show a significant difference,  $\chi^2(14, N=29)=24.35$ ,  $p=.042$ . While there is chance this outcome is informed by the different group sizes it could also be indicative of a more diverse sample in the 4-week group.

**Table 8**

*Differences at Baseline Comparing Groups and Location*

Measure	4 week Mean rank (n=8)	8 week Mean rank (n=20)	Mann-Whitney U
WEMWBS	13.12	15.05	$U(n=28)=69$ , $z=3.51$ , $p=.601$
RFQc	13.88	14.75	$U(n=28)=75$ , $z=3.84$ , $p=.823$
RFQu	13.50	14.90	$U(n=28)=72$ , $z=3.69$ , $p=.709$
SCS-R	14.81	14.38	$U(n=28)=82.5$ , $z=4.20$ , $p=.901$
Measure	Streatham Mean Rank (n=10)	Peckham Mean Rank (n=11)	City Mean Rank (n= 8) Kruskal-Wallis
WEMWBS	19.60	10.50	13.12 $H(2)=6.44$ , $z=.14$ , $p=.040^*$
RFQc	16.75	12.75	13.88 $H(2)=1.26$ , $z=.28$ , $p=.532$
RFQu	12.25	17.55	13.50 <sup>a</sup> $H(2)=2.28$ , $z=.78$ , $p=.320$
SCS-R	18.60	10.15	14.81 <sup>b</sup> $H(2)=5.30$ , $z=.05$ , $p=.071$

<sup>a</sup> high outliers  
<sup>b</sup> low outliers

### 3.4.4 Changes Over Time

Friedman's two-way analysis of variance tests were run to explore how the dependent variables changed over time between all three time points. Only connectedness showed significance between all three time points (see Table 9), however as indicated in Table 10, when Wilcoxon signed rank (S-R) tests were run significant differences also emerged for wellbeing T1-T2, while wellbeing T2-T3 and mentalizing uncertainty T1-T2 showed values nearing significance. Wellbeing results will be discussed in the next section. Regarding connectedness it is clear from the Wilcoxon S-R test that there were significant differences between baseline and post-intervention, and between post-intervention and follow-up, while there were no significant differences between baseline and follow-up. Specifically the data revealed that all 17 participants showed increases on SCS-R after the intervention, however

in the follow-up period improvements on SCS-R were present for only two participants while nine participants showed significant decreases on SCS-R. No significant differences were found for the two mentalizing scales, however the data suggest that a similar trend was present for RFQc, namely that mentalizing certainty increased post-intervention and then decreased slightly in the follow-up period, while the expected inverse pattern seemed to occur in part for mentalizing uncertainty, namely that it decreased following the intervention. However, mentalizing uncertainty did not seem to change in the follow-up period but seems to have remained stable. These mentalizing data need to be interpreted carefully as they were not significant. Importantly the data suggested that although participants experienced reductions in wellbeing and mentalizing certainty in the follow-up period, these did not seem to reduce to baseline, suggesting that some improvements may have been maintained. The exception to this is connectedness, which reduced to below baseline.

**Table 9**

*Changes in the Dependent Variables Over Time Using Friedman's Two Way Analysis of Variance, n=11*

	T1 Mean rank	T2 Mean rank	T3 Mean rank	Test
WEMWBS	1.82	2.50	1.68	$\chi^2(2)=4.43, p=.109$
RFQc	2.09	2.27	1.64	$\chi^2(2)=2.67, p=.264$
RFQu	2.14	1.77	2.09	$\chi^2(2)=1.09, p=.581$
SCS-R	1.45	2.82	1.73	$\chi^2(2)=11.46, p=.003^*$

\* significance  $p<.05$

**Table 10**

*Changes in the Dependent Variables Over Time Using Wilcoxon Signed-Rank*

	n	Median	Test	Increases N	Decreases N	No change N	Median difference
WEMWBS	T1	44.50	$z=-3.13, p=.001^{*a}$	13	2	2	3
	T2	51					
	T1	44.50	$z=-.25, p=.827^a$	6	7	1	-1
	T3	46					
RFQc	T2	51	$z=-1.92, p=.059^a$	3	8	0	-3
	T3	46					
	T1	.58	$z=-1.39, p=.181^a$	9	5	3	-.33
	T2	1.33					
RFQu	T3	.58	$z=-.53, p=.620^a$	5	8	1	-.17
	T1	1.08					
	T2	1.33	$z=-1.26, p=.250^a$	2	6	3	-.17
	T3	1.08					
SCS-R	T1	.75	$z=-1.97, p=.057^a$	3	8	6	.00
	T2	.33					
	T1	.75	$z=-.04, p=.982^a$	7	5	2	.08
	T3	.33					
SCS-R	T2	.33	$z=-.26, p=.879^a$	6	4	1	.17
	T3	.33					
	T1	86.50	$z=-3.62, p<.0005^*$	17	0	0	-6
	T2	95					
SCS-R	T1	86.50	$z=-.76, p=.473^a$	7	7	0	-1
	T3	76					
	T2	95	$z=-2.36, p=.016^{*a}$	2	9	0	-6
	T3	76					

<sup>a</sup>2-sided, exact significance

\* significance  $p<.05$



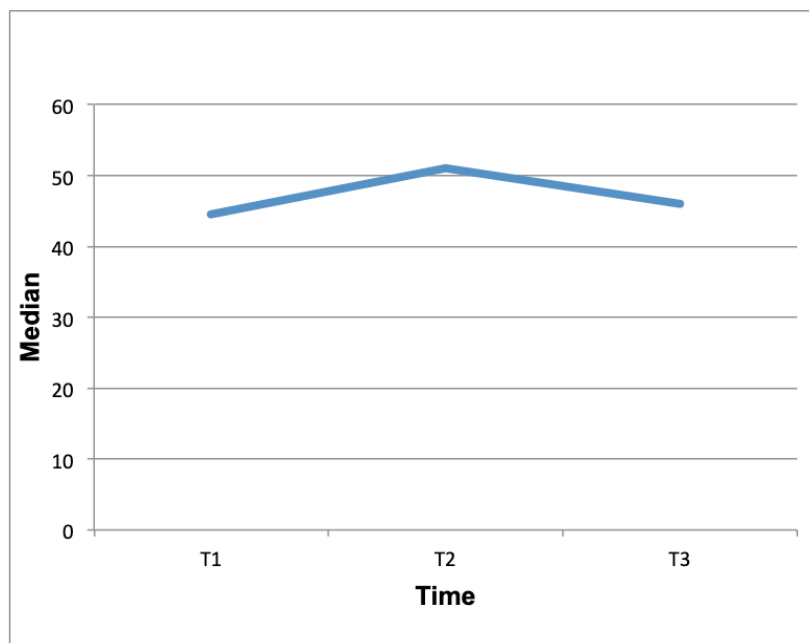
### 3.5 Secondary Analyses

#### 3.5.1 Changes in Wellbeing Over Time

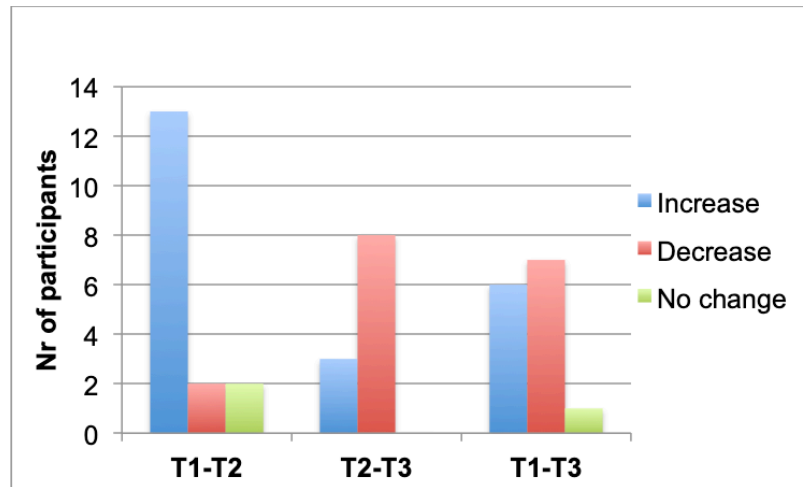
In an attempt to explore the first hypothesis this study asked whether wellbeing increased post-intervention and whether this change was maintained in the follow-up period. A Friedman's test showed no overall effect of time for wellbeing, however follow-up Wilcoxon S-R tests (Table 10) comparing T1-T2, T1-T3 and T2-T3, showed a significant difference between baseline and post-intervention ( $z=-3.13$ ,  $p=.001$ ), such that wellbeing significantly improved between T1 and T2 (see Figure 3).

**Figure 3**

*Median Wellbeing Scores Over Time*



Specifically between baseline and post-intervention 13 participants experienced increases in wellbeing (76% of participants), while two participants experienced decreases in wellbeing and two participants experienced no change (see Figure 4). There were no significant differences between T1-T3, while T2-T3 differences neared significance. It is important to consider that the data need to be interpreted cautiously due to lack of significance, however wellbeing may have decreased in the follow-up period, though some improvements may have remained. The data suggest that more participants experienced decreases in their wellbeing in the follow-up period, namely 73% between T2-T3 and 50% between T1-T3.

**Figure 4***Changes in Wellbeing Over Time*

Exploratory analyses looking at location and intervention types over time for wellbeing showed only one significant difference, which has already previously been identified for location at T1. The measure did not differ significantly post-intervention or at follow-up between the 8-and 4-week group or between any of the locations, suggesting that the intervention had a relatively equal effect across locations and intervention type.

**Table 11***Wellbeing Scores Across Intervention Type and Location*

Measure	Time	4 week Mean rank (n=8)	8 week Mean rank (n=21)	Mann-Whitney U
WEMWBS	T1	13.12	15.05	U(n=28)=69, z=3.51, p=.601
	T2	6	9.92	U(n=17)=14, z=1.60, p=.202
	T3	6.75	7.80	U(n=14)=17, z=2.41, p=.733

Measure	Time	Streatham Mean rank (n=10)	Peckham Mean rank (n=11)	City Mean rank (n=8)	Kruskal-Wallis
WEMWBS	T1	19.60	10.50	13.12	H(2)=6.44, z=3.94, p=.040*
	T2	11.88	6.80 <sup>a</sup>	6.00	H(2)=5.03, z=2.61, p=.081
	T3	8.50	6.75	6.75	H(2)=.61, z=.22, p=.739

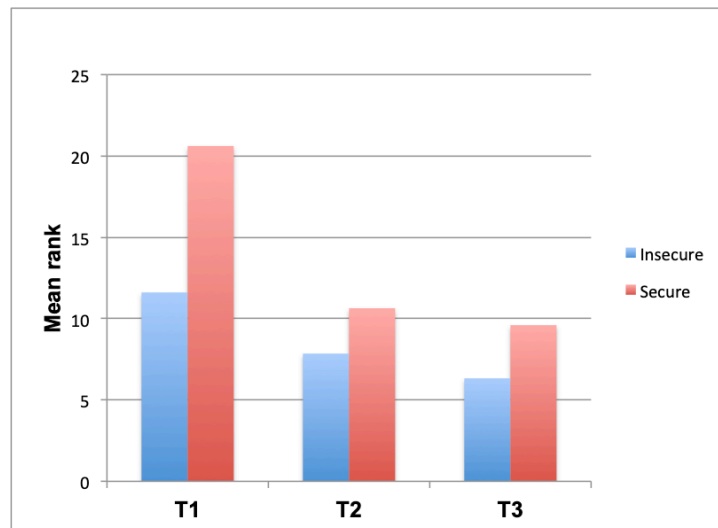
<sup>a</sup> high outliers<sup>b</sup> low outliers\* significance  $p < .05$ 

Further exploratory analyses were run to identify potential differences in wellbeing based on the attachment scores. When the data were split according to baseline attachment, Mann Whitney U tests (Figure 5) showed significant mean rank differences between insecure and secure attachment for wellbeing at baseline ( $z=-2.71$ ,  $p=.005$ ) but not at post-intervention or follow-up. Specifically, those participants who were securely attached showed significantly higher wellbeing scores (20.61) prior to engaging in LKM compared to those who were insecurely attached (11.61) but that this significance disappeared post-intervention and at

follow-up. These data do need to be interpreted with caution due to the uneven and small group sizes.

**Figure 5**

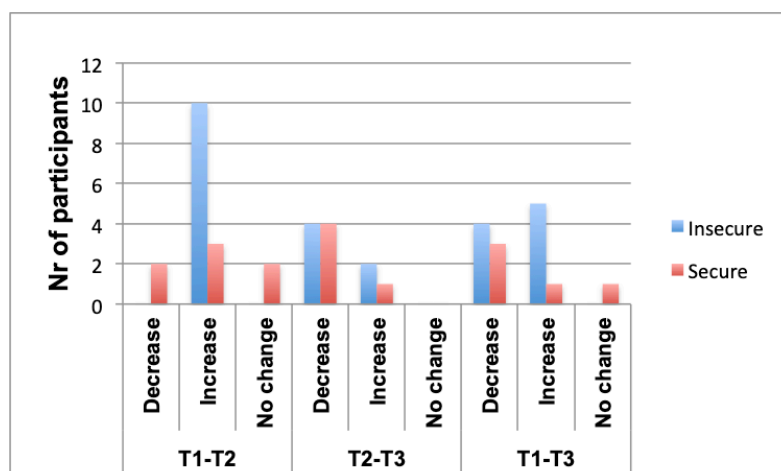
*Changes in Mean Rank Wellbeing Scores Over Time Comparing Secure to Insecure Attachment*



Notably when Wilcoxon S-R tests were run the only significant result was the difference between baseline and post-intervention for those participants who showed insecure attachment,  $z=-1.81$ ,  $p=.002$ . While three participants with secure attachment showed improvements on wellbeing following the intervention 10 participants with insecure attachment showed improvements in wellbeing. Differences between T2-T3 and T1-T3 were not significant for either secure or insecure attachment. These data need to be interpreted with caution due to uneven and small group sizes.

**Figure 6**

*Changes in Wellbeing Over Time Comparing Secure to Insecure Attachment*



### 3.5.2 Effect Sizes

Another indication that an intervention has been meaningful is the effect size (see Table 12). Effect sizes can be beneficial, especially for feasibility studies, to help determine the usefulness of the intervention, however they need to be interpreted with caution especially with regards to informing a larger scale follow-up (Rosenthal, 1991 as cited in Field, 2013; Sim, 2019). Using Cohen's criteria, where .1 is considered small, .3 is considered medium and .5 is considered a large effect, it is possible to conclude that the intervention had a large effect on wellbeing directly after the intervention ( $r = -.54$ ) and that this reduced somewhat in the follow-up period ( $r = -.41$ ; Field, 2009). Medium and large effects were also found for connectedness post-intervention and with some reductions in the follow-up period ( $r = -.62$  and  $r = -.50$  respectively) and for mentalizing uncertainty post-intervention only ( $r = -.34$ ).

**Table 12**

*Effect Sizes for Each Measure at Each Time Point*

Measure	Time	Effect size $r$
WEMWBS	T1-T2	-.54
	T1-T3	-.05
	T2-T3	-.41
RFQc	T1-T2	-.24
	T1-T3	-.10
	T2-T3	-.27
RFQu	T1-T2	-.34
	T1-T3	-.01
	T2-T3	-.06
SCS-R	T1-T2	-.62
	T1-T3	-.14
	T2-T3	-.50

### 3.5.3 Relationship Between Measures

In an attempt to explore possible relationships between the measures (Hypothesis 2) Pearson correlations were run at all three time points. Attendance rate showed no significant correlation with any variables and was therefore not included in the analyses. All correlations are noted in Table 13. What is clear from these data is that most measures were correlated at baseline except for the attachment and mentalizing subscales, especially attachment anxiety, which is unexpected considering the clinically informed robust theory about the relationship between attachment and mentalizing where insecure attachment frequently contributes to deficits in mentalizing (Huang et al., 2020). Another interesting finding is that the majority of measures no longer correlated post-intervention but did in the follow-up period. It was notable that connectedness regained its robust associations in the follow-up period. As expected the mentalizing subscales were significantly negatively correlated with each other for each time point due to their inverse relationship, T1  $r = -.75$ ,  $p < .001$ , T2  $r = -.58$ ,  $p = .015$ , T3  $r = -.56$ ,  $p = .037$ . The attachment subscales were significantly positively associated

with each other as expected, except post-intervention,  $T1\ r=.56, p=.002$ ,  $T2\ r=.40, p=.108$ ,  $T3\ r=.72, p=.004$ , which is similar to prior research that found positive correlations of  $r=.40$  (Fraley, 2012).

**Table 13**

*Pearson Correlation Between All Measures at Each Time Point*

	RFQc	RFQu	SCS-R	ECR-R anxiety	ECR-R avoidance
<b>T1 (n = 28)</b>					
WEMWBS	.49 ( $p=.009$ )*	-.53 ( $p=.004$ )*	.84 ( $p<.000$ )*	-.67 ( $p<.000$ )*	-.55 ( $p=.002$ )*
RFQc		-.75 ( $p<.000$ )*	.51 ( $p=.006$ )*	-.27 ( $p=.160$ )	-.51 ( $p=.006$ )*
RFQu			-.50 ( $p=.007$ )*	.28 ( $p=.154$ )	.27 ( $p=.161$ )
SCS-R				-.62 ( $p<.000$ )*	-.57 ( $p=.002$ )*
ECR-R anxiety					.56 ( $p=.002$ )*
<b>T2 (n = 17)</b>					
WEMWBS	.47 ( $p=.055$ )	-.28 ( $p=.270$ )	.53 ( $p=.028$ )*	-.45 ( $p=.072$ )	-.31 ( $p=.227$ )
RFQc		-.58 ( $p=.015$ )*	.54 ( $p=.025$ )*	-.35 ( $p=.168$ )	-.36 ( $p=.153$ )
RFQu			.02 ( $p=.951$ )	.24 ( $p=.362$ )	-.10 ( $p=.706$ )
SCS-R				-.34 ( $p=.177$ )	-.44 ( $p=.080$ )
ECR-R anxiety					.40 ( $p=.108$ )
<b>T3 (n = 14)</b>					
WEMWBS	.20 ( $p=.491$ )	-.70 ( $p=.006$ )*	.76 ( $p=.002$ )*	-.48 ( $p=.082$ )	-.50 ( $p=.072$ )
RFQc		-.56 ( $p=.037$ )*	.63 ( $p=.017$ )*	-.42 ( $p=.140$ )	-.61 ( $p=.020$ )*
RFQu			-.60 ( $p=.024$ )*	.46 ( $p=.098$ )	.59 ( $p=.025$ )*
SCS-R				-.60 ( $p=.027$ )*	-.77 ( $p=.001$ )*
ECR-R anxiety					.72 ( $p=.004$ )*

\* significance  $p<.05$

Table 14 contains an overview of the negative/positive associations and how these changed over the three time points for each measure. It is evident that some measures showed consistency over time. For example wellbeing consistently showed positive associations with connectedness and mentalizing certainty, and negative associations with mentalizing uncertainty and both attachment subscales, suggesting that as wellbeing improved so did connectedness, mentalizing and attachment. Importantly not all of these associations are significant. Overall this pattern seems to remain consistent that as wellbeing, mentalizing certainty and connectedness increase, the other measures decrease and vice versa. There are a number of inconsistencies especially at T2 adding to the evidence that post-intervention associations may not have been robust.

### 3.5.4 Predictive Relationships

In order to explore possible predictive relationships between the measures multiple regressions were run only at T1 and T3 due to the lack of significant correlations at T2 (see Table 15). Both mentalizing subscales, connectedness and both attachment subscales significantly predicted wellbeing at T1,  $F(5,22) = 14.43, p<.001, \text{adj. } R^2 = .71$ , and T3,  $F(5,8) = 13.73, p = .001, \text{adj. } R^2 = .83$ . However at T1 only connectedness contributed significantly

to the prediction,  $p = .001$ , while at T3 connectedness and both mentalizing certainty and uncertainty predicted wellbeing,  $p = .001$ ,  $p = .007$ ,  $p = .005$  respectively.

**Table 14**

*Overview of the Negative and Positive Correlations Over Time*

		T1	T2	T3
WEMWBS	RFQc	+	+	+
	RFQu	-	-	-
	SCS-R	+	+	+
	ECR-R anxiety	-	-	-
	ECR-R avoidance	-	-	-
SCS-R	WEMWBS	+	+	+
	RFQc	+	+	+
	RFQu	-	+	-
	ECR-R anxiety	-	-	-
	ECR-R avoidance	-	-	-
RFQc	WEMWBS	+	+	+
	RFQu	-	-	-
	SCS-R	+	+	+
	ECR-R anxiety	-	-	-
	ECR-R avoidance	-	-	-
RFQu	WEMWBS	-	-	-
	RFQc	-	-	-
	SCS-R	-	+	-
	ECR-R anxiety	+	+	+
	ECR-R avoidance	+	-	+
ECR-R anxiety	WEMWBS	-	-	-
	RFQc	-	-	-
	RFQu	+	+	+
	SCS-R	-	-	-
	ECR-R avoidance	+	+	+
ECR-R avoidance	WEMWBS	-	-	-
	RFQc	-	-	-
	RFQu	+	-	+
	SCS-R	-	-	-
	ECR-R anxiety	+	+	+

+ indicate positive correlations  
- indicate negative correlations

In order to explore the hypothesis that there might be a predictive relationship between mentalizing, attachment, connectedness and wellbeing after engaging with the intervention, the data were split according to secure and insecure attachment and the data entered into a hierarchical regression with both T2 mentalizing subscales at the first level, T2 connectedness at the second level and T2 wellbeing as the outcome variable (see Table 16). For the full model there were significant findings only in the insecure group,  $R^2 = .81$ ,  $F(1,6) = 8.55$ ,  $p = .014$ , adjusted  $R^2 = .72$ . Interestingly, the mentalizing subscales only became statistically significant to the model with the addition of connectedness to the prediction of wellbeing,  $\Delta R^2 = .36$ ,  $F(1,6) = 11.49$ ,  $p = .015$ , potentially suggesting that connectedness is a key variable in predicting wellbeing.

**Table 15***Multiple Regressions for Wellbeing at T1 and T3*

	B	95% CI for B		SE B	$\beta$	R <sup>2</sup>	$\Delta R^2$
		LL	UL				
T1							
Model						.77	.71***
Constant	32.02**	13.10	50.94	9.13			
RFQc T1	-.65	-4.52	3.21	1.86	-.06		
RFQu T1	-3.13	-8.64	2.39	2.66	-.20		
SCS-R T1	.26***	.12	.40	.07	.60		
ECR-R anxiety T1	-1.33	-3.09	.43	.85	-.22		
ECRR avoidance T1	-.44	-2.57	1.69	1.03	-.06		
T3							
Model						.90	.83 ***
Constant	19.74	-5.58	45.05	10.98			
RFQc T3	-7.58**	-12.43	-2.73	2.10	-.57		
RFQu T3	-10.27**	-16.51	-4.04	2.70	-.58		
SCS-R T3	.42***	.22	.62	.09	.93		
ECR-R anxiety T3	-.88	-3.48	1.73	1.13	-.13		
ECR-R avoidance T3	2.82	-1.75	7.40	1.98	.32		

Note. Model="Enter" method in SPSS statistics; B=unstandardized regression coefficient; CI= confidence interval; LL=lower limit; UL=upper limit; SE B=standard error of the coefficient;  $\beta$ =standardised coefficient; R<sup>2</sup>=coefficient of determination;  $\Delta R^2$ =adjusted R<sup>2</sup>.

\* p<.05

\*\* p<.01

\*\*\* p<=.001

**Table 16**

*Hierarchical Regressions Exploring the Predictive Relationship Between Measures Post-intervention*

	Model 1		Model 2	
	B	$\beta$	B	$\beta$
Insecure (N=10)				
Constant	64.58*** (p=.000)		38.40** (p=.006)	
T2 RFQc	-6.05 (p=.245)	-.53	-10.33* (p=.020)	-.91
T2 RFQu	-21.68 (p=.056)	-.96	-25.26** (p=.006)	-1.12
T2 SCS-R			.36* (p=.015)	.66
R <sup>2</sup>	.45		.81	
F	2.83 (p=.125)		8.55* (p=.014)	
$\Delta R^2$	.45		.36	
$\Delta F$	2.83 (p=.125)		11.49* (p=.015)	
Secure (N=7)				
Constant	40.20* (p=.010)		68.59 (p=.263)	
T2 RFQc	7.59 (p=.132)	.92	11.80 (p=.259)	1.43
T2 RFQu	3.27 (p=.478)	.38	6.42 (p=.433)	.75
T2 SCS-R			-.36 (p=.603)	-.43
R <sup>2</sup>	.51		.56	
F	2.06 (p=.243)		1.26 (p=.428)	
$\Delta R^2$	.51		.05	
$\Delta F$	2.06 (p=.243)		.34 (p=.603)	

Note. B=unstandardized regression coefficient;  $\beta$ =standardised coefficient; R<sup>2</sup>=coefficient of determination; F= F-ratio;  $\Delta R^2$ = adjusted R<sup>2</sup>;  $\Delta F$ = change in F

\* p<.05

\*\* p<.01

\*\*\* p<=.001

In order to explore change over time the hierarchical regression was repeated with T3 data. The data were entered with both mentalizing subscales at T3 at the first level and connectedness at T3 at the second level and wellbeing at T3 as the outcome variable (see Table 17). There were significant findings only in the insecure group. The full model was significant at  $R^2 = .93$ ,  $F(1,5) = 21.89$ ,  $p = .003$ ; adjusted  $R^2 = .89$ , but the addition of connectedness to the prediction of wellbeing was not statistically significant,  $R^2 = .05$ ,  $F(1,5) = 3.32$ ,  $p = .13$ .

**Table 17**

*Hierarchical Regression Exploring the Predictive Relationship Between Measures in the Follow-up Period*

	Model 1		Model 2	
	B	$\beta$	B	$\beta$
Insecure (N=9)				
Constant	68.52 (p=.000)		50.24 (p=.005)	
T3 RFQc	-17.01 (p=.003)	-.92	-13.91 (p=.010)	-.75
T3 RFQu	-21.17 (p=.001)	-1.30	-16.13 (p=.009)	-.99
T3 SCS-R			.19 (p=.128)	.32
R <sup>2</sup>	.88		.93	
F	22.50 (p=.002)		21.89 (p=.003)	
Change R <sup>2</sup>	.88		.05	
Change F	22.50 (p=.002)		3.32 (.13)	
Secure (N=5)				
Constant	52.22 (p=.039)		-15.64 (p=.406)	
T3 RFQc	1.89 (p=.789)	.17	-17.21 (p=.127)	-1.53
T3 RFQu	-23.56 (p=.321)	-.72	2.59 (p=.743)	.08
T3 SCS-R			.94 (p=.105)	1.77
R <sup>2</sup>	.46		.99	
F	.87 (p=.54)		22.70 (p=.15)	
Change R <sup>2</sup>	.46		.52	
Change F	.87 (p=.54)		36.05 (p=.105)	

Note. B=unstandardized regression coefficient;  $\beta$ =standardised coefficient;  
R<sup>2</sup>= coefficient of determination; F= F-ratio;  $\Delta R^2$ = adjusted R<sup>2</sup>;  $\Delta F$ = change in F  
\* p<.05  
\*\* p<.01  
\*\*\* p<=.001



## Chapter 4: Qualitative Findings

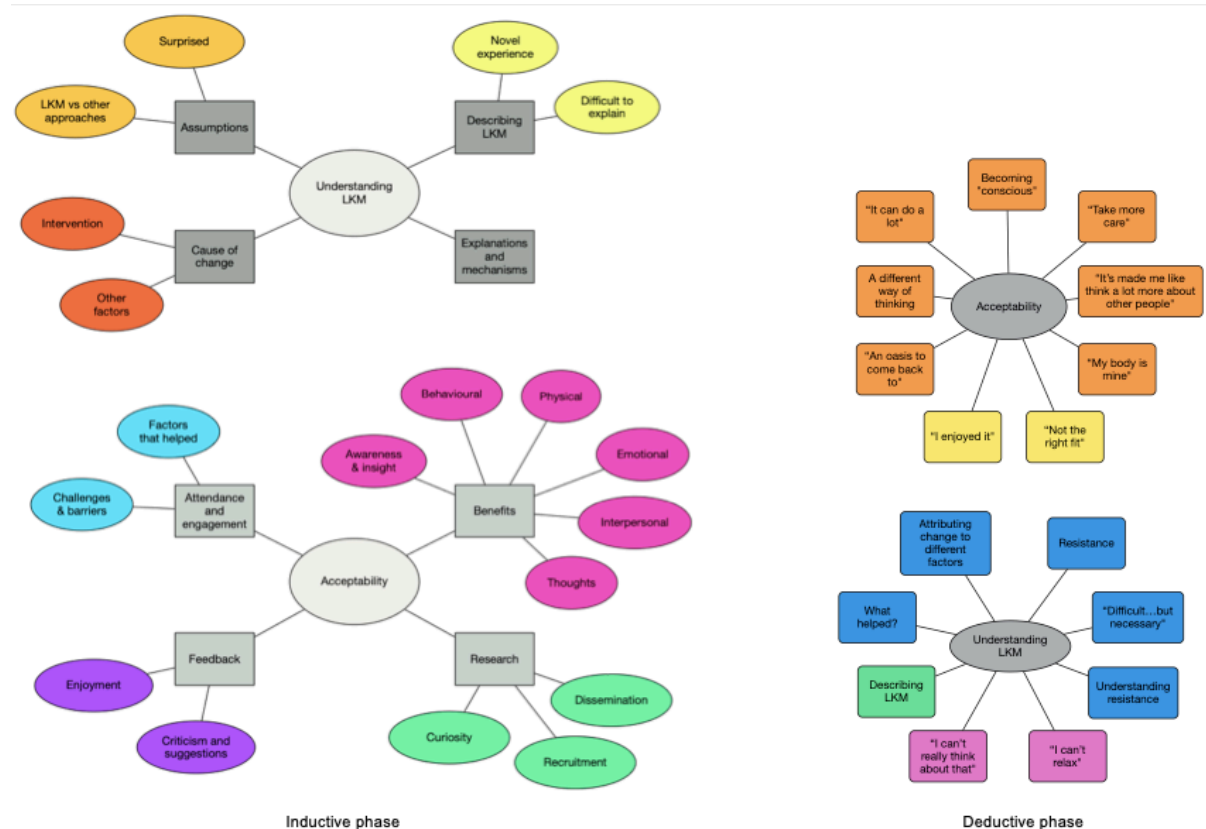
### 4.1 Introduction

This study set out to conduct a MM study where both the quantitative as well as the qualitative data were given equal weight, while also allowing each to supplement the limitations of the other. This qualitative section comes after the quantitative not because it is secondary but because it offers valuable context and nuance to the data outlined above, facilitating a deeper understanding of the data.

In the initial, primarily inductive phase of the analysis the themes did not subscribe to the distinction between the two main hypotheses but as the themes were refined and a more deductive lens introduced the themes did fall into two main categories, namely intervention acceptability and understanding LKM, which broadly align with the overall hypotheses of the study. Furthermore, subthemes arose that mirrored the questions asked, allowing the researcher's clinical knowledge to deductively frame the data (e.g. reflections on thoughts, behaviour, emotions and interpersonal relating). Eight main themes, four in each overarching hypothesis category, and 19 subthemes were refined to nine themes exploring acceptability and eight themes exploring LKM's mechanisms (see Figure 7).

**Figure 7**

*Initial Themes and Subthemes*

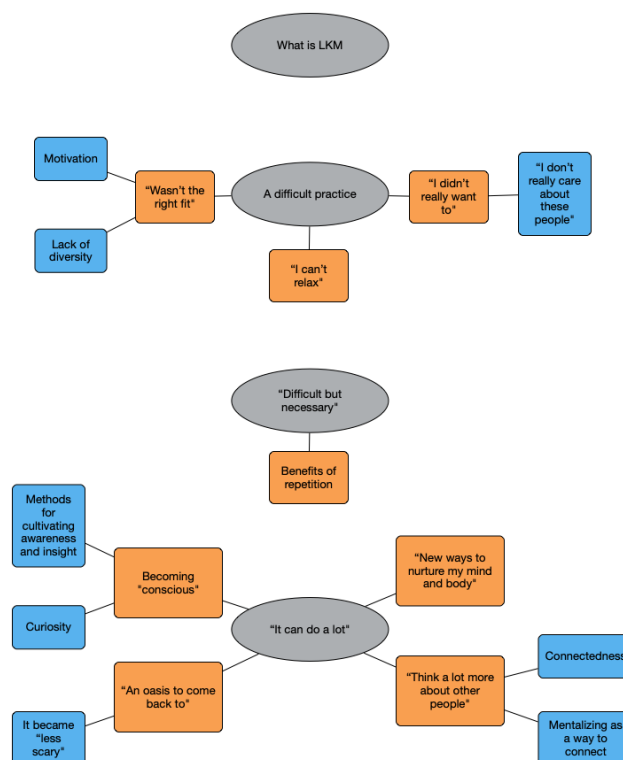


While the deductive lens shaped the developing themes and subthemes from the outset this first phase of the analysis was important because it created space for new ideas to come from the data. For example, inductive analyses identified a subtheme that is highly relevant to an exploration of a meditation programme and an intervention with potential therapeutic effects, namely awareness and insight. By allowing the data to dictate the direction of the analyses from the bottom up, the author was supported in checking her subjectivity, which is an essential component of the CR framework that considers the different layers in the data (e.g. what was perceived by the researcher versus what was intended by the participant versus what actually occurred). The incorporation of latent analysis throughout both phases also contributed to this exploration of the multiple layers of knowledge, creating space for a richer exploration of themes especially relating to process including possible unconscious processes.

These themes and subthemes were refined further during the writing stage to ensure each theme was clear and robust in responding to the study's research questions (Braun & Clarke, 2006). This resulted in a final four themes and eight subthemes (see Figure 8) that robustly summarised the qualitative data and contributed to a narrative that answered the research questions.

**Figure 8**

*Final Qualitative Themes and Subthemes*



A guiding question that supported this process was “how does this contribute to the overarching questions around acceptability and understanding LKM and its underlying mechanisms?”. If the theme or subtheme robustly contributed to an overarching narrative, even if it contradicted the original hypotheses, then it was retained, but if this was lacking then the data were incorporated into another theme where relevant or not included. For example during the interviews some participants did not contribute any additional data to certain questions, like those around changes in their bodies, therefore in the final round of analyses the data from the subtheme “my body is mine” were incorporated into other subthemes or discarded, as it did not constitute a robust enough subtheme.

#### **4.2 Descriptive Data**

Two out of seven participants who completed interviews were male. Five participants participated in both interview rounds, at post-intervention and at 6-month follow-up, of who three were in one of the two 8-week groups. Three participants declined or did not respond to requests to participate in the interviews.

#### **4.3 What Is LKM?**

The first theme captured how participants viewed and described LKM. Prior to the programme LKM had not been defined for participants and most participants had not previously experienced LKM as per the inclusion/exclusion criteria. The data supported this, highlighting that LKM was new (“I hadn’t even heard of before, never even thought about doing”). However, as participants engaged with the practice they began to develop a subjective understanding of LKM, which was captured during the second round of interviews following the intervention when participants were asked to describe LKM using one word. Participants answered using words such as “empathy”, “peace” and “connectedness”, as well as “introspective” and “difficult”, capturing the mixed experiences of the programme and the different perspectives on LKM, suggesting that LKM was not a uniform experience and that it meant or captured different things to different participants. The subjective nature of the intervention was captured by one participant who noted the programme fostered “individual experiences for everybody”.

A number of participants reflected on an interpersonal focus of the programme. One participant for example stated that “exercises you know about thinking about a person or ehm something like that”, while other participants described LKM as a process “to think about who loves you and think about who you love”. Furthermore, participants seemed to view LKM as mental training or exercise technique (“they were very mind focussed

exercises”), for example when they described the need to be “active” and to view LKM as a way to “train” yourself.

Participants noticed a progression in the programme that was “linear” and “starts (?) from like the people that it's easier to send that to and then it goes to like kind of how can you give that to people that it's like not easy I guess”. One participant was struck by “the simplicity of it”, potentially drawing attention not only to the programme being accessible but also to the structure’s ability to contain or help manage the challenging aspects of the practice. Others seemed to struggle with this progression, instead finding it prescriptive.

This progression was captured another way too, with one participant describing it as “a journey in my mind”. This description suggested that the programme created an environment for exploration of experience that went beyond the confines of the prompts given. For some participants this exploration took them into the past with two participants making reference to their childhood or their parents:

I just wrote about eh eh like eh about my childhood. I was trying to find eh out why I had a difficult childhood and eh what eh and the issue that eh that from then that are still having an effect.

I've been spending a lot of time like thinking like about like myself recently and like how I don't know I like fit into the world and like stuff with like my parents and how that's like made me like a certain type of person and kind of thinking a lot about like how I relate to other people and how I react to things.

These quotes highlighted how the programme created space for a process in some of the participants’ minds to reflect on the links between the past and the present, which occurred without any explicit prompting from the facilitator. These introspective processes share a similarity with the therapeutic process, which not only makes links between the past and the present but also creates space for curiosity to explore.

Specific aspects of the programme seemed to prompt these internal journeys. For example, one participant stressed how “the specific points of the guided meditation that were like inviting us to think about the like wider community and the wider uhm world” had helped the participant become “aware and caring of other like strangers' thoughts”, suggesting that specific phases or phrases had contributed to these deeper levels of awareness. One

participant questioned whether thinking about strangers may have helped (“think about those people like differently”), while another participant described how the prompt to consider the universality of suffering really helped connect them to other people in a soothing way:

When she said you know remember everyone suffers and remember everyone in this room is sort of thinking what you're thinking and all the people outside of this room that you're thinking of are also probably thinking this sometimes. I think it's probably just more of a reassuring thing to kind of remind you that everyone's doing what you're doing or thinking about what you're thinking and that's normal.

#### **4.4 A Difficult Practice**

A second theme was developed from the data that focused on the complexity and difficulty of LKM. For example, some participants stated outright they found it challenging (“I would say it was challenging (pause) yeah for for me”), while others described feeling uncomfortable (“I've noticed that something from the guided meditation guidelines was making me feel uncomfortable”) or described being challenged more obliquely (“my brain having to think about things I hadn't thought about before”). The post-session survey showed that there were two out of 12 participants who indicated that the programme was unhelpful. Although some participants were pleasantly surprised by their experience, other participants indicated not finding it relaxing (“thinking about people and really getting into my thoughts is not really a way that I find was particularly relaxing”) or becoming distracted (“I instead I was just kind of like I suppose like getting distracted with my thoughts probably but uhm and just and thinking around what I was thinking”).

Further evidence that participants may have found the programme difficult was substantiated by participant behaviour including inconsistent attendance, not taking time to reflect on their experience post-session or between sessions, not completing questionnaires, and declining or contributing minimally in the interviews. For example, some participants said they found it useful but did not attend as often as they would have liked (“hm so although I kind of you know slightly preached it to friends, I wasn't actually consistent in going myself”) or that if they had had enough time they would have engaged more (“and when I find time I'd love to do it more”), while also indicating that they were not making time (“generally I should do it a lot more than I am. I always mean to and then it's kind of, I don't know, just doesn't quite

happen”). This highlights some level of incongruence<sup>4</sup> and is an example of a potential unconscious process or psychological defence (Mearns & Thorne, 2013).

Confusion was another facet of this theme (“i’m actually a bit confused about it”). When expectation clashed with actual experience, this left one participant feeling quite confused and questioning their experience (“and I was like ‘what? I thought this made me feel really good every time I do this’ (laughs). ‘Why do I feel like this now?’”), while another explicitly referenced finding the programme incongruent (“‘may you live your life with ease’ seemed a funny/ incongruent wish to wish for someone”). The programme was viewed as “hard to explain” and the effects were described as “hard to quantify” or “woo-woo”. Some participants seemed to wrestle with the complexity by capturing subtle nuances, describing it as both “an insular” experience and a practice cultivating “connectedness”, and as a “process of expanding inwards and going outward”.

Table 18 shares examples of mostly practical or logistical aspects of the programme that contributed to the difficulties that were faced, though other factors such as the novelty of the programme were also identified as barriers to engaging (“I found it quite hard to persist...because I haven’t done it”).

**Table 18**

*Factors That Made It Difficult To Engage In The Programme*

Environment	“The room was sometimes too cold!”
Location	“Preference expressed for a “venue in West London”
Timing	“The 5.30pm start time was difficult for me as it meant I needed to leave work before 5pm which I could not do every week”
Lack of between session activity	“Maybe something to think about during the week to then bring back to the next session”
Facilitator	“Preferred the first facilitator because she had a more soothing voice and when she was reading out the script it did not seem as scripted”
Questionnaires	“Just to flag that the last section of questions is a bit complicated to answer if one does not have a partner”

Participants referenced how specific phases raised difficulties too. For example, some participants identified that sending lovingkindness to others was challenging (“it’s even harder to think about like, like sending that outwards”). One participant indicated losing focus when they were invited to send well wishes to strangers and people they had a difficulty with (“but then lose focus when ask to picture people I dislike or don’t know”), which was echoed by a participant who noted that sending wishes to strangers and themselves brought up “the most resistance” while another participant “kept getting distracted when it was the uh projecting onto people you didn’t like”.

<sup>4</sup> Congruence is a term coined by Carl Rogers that describes how closely aligned someone is to their ideal or true self.

Sending lovingkindness to oneself was generally considered a difficult and challenging experience (“it felt quite hard to do that” and “it's not easy to accept the feeling of love”). For some participants this phase, where participants were encouraged to receive and send LKM phrases to themselves, elicited something that felt “profound”. Participants identified experiencing vulnerability (“uhm well I think it, they made me feel very sensitive. Especially at the beginning when it was talking to ourselves. It made me feel hmm vulnerable I suppose”) and described it as an emotional experience (“when I was thinking about like someone who loves me like I found that like really like emotional”). One participant indicated that one particular image of themselves had contributed to their emotional reaction in this phase, namely picturing themselves as a child (“when I pictured myself it was already my child self. And so that was like the vulnerable me that was very insecure in telling myself to, to, to be safe and happy and healthy and uhm”). Not only did this quote contribute to the theme about LKM being a challenging experience but it also described how the programme provoked an emotional response and made links to the past.

#### **4.4.1 “Wasn’t The Right Fit”**

A subtheme captured a rigidity in expectations; participants wanted to experience something specific (“it wasn't like 'oh this is this is an overpowering thing that I'm in the presence of which I was kind of trying to will myself to feel (laughs)”) and some seemed disappointed when expectations were not met (“uhm and I feel like even though obviously like I came and like practiced it wasn't like you know to be totally honest it didn't have any epiphanies when I was like lying there in the room”). One of the key criticisms from participants in the first two cohorts included disliking the repetition of the intervention (“but then that is a critique like I, I, towards the end I was like 'oh I already know what's going to happen”), describing it as “boring” and “distracting”. Participants may have assumed that engaging in the programme would have been exciting and engaging. Instead a number of participants found themselves able to anticipate the meditation (“my brain knew what to think of next”) and one participant described finding it “less and less kind of relevant and like more difficult to engage with”, potentially because it defied their expectations.

Some participants expressed a preference for diverse practices, practices that changed and challenged them, practices that were new, practices that focussed more on the body or their senses rather than the mind, practices that were “the right thing” for them or that had the “right environmental factors”. While some of this might be evidence of a genuine preference, it could also indicate a misunderstanding of the practice. For example, some participants described LKM using positive words like “calm” and “kindness”, while another participant

stated a preference for a type of meditation that focused on “clearing the mind”. These data suggested that participants underestimated the complexities of the practice. Other assumptions were also evident with one participant indicating “it didn’t have the same level of impact as I might have hoped for”, suggesting this participant may have expected every experience to cultivate depth or insight. One participant seemed disappointed, stating “if you know what's going to happen I could just do it at home”, potentially indicating that this participant had assumed or hoped that practicing in a group setting would have felt different or special to independent practice but that it did not. The data also indicated that some participants made assumptions about meditation and therapy, with one participant assuming that therapy was about the past and meditation about the present.

A key assumption for a number of participants included a desire to be challenged (“I think I found I kind of wanted to be challenged by it”) and to experience diversity (“if I was to take up meditation as like a hobby like I did for running I would want to try lots of different ones uhm and then after maybe six months then I'd see ones that I prefer the most and then maybe even then I wouldn't wholeheartedly buy into one specific thing I'd still switch it up a bit”). For example one participant identified how they had assumed the programme would be continually changing and when this was not the case, struggled to engage (“whereas as that was repeated I actually found my brain wasn't sort of being challenge or being taken to new places” and “so I think that's probably why I found the challenge with it was having to focus on one particular thing when my brain was just skipping ahead to other people and other environments”).

Participants also expressed thoughts about who they expected could benefit from such an intervention, suggesting that “people’s personalities” might effect engagement. A number of participants indicated that LKM was not “the right one for me”, suggesting they felt they were not the right type of person who could benefit from the practice. Not entirely dismissing the programme, participants felt that others might benefit more (“slightly kind of categorize those friends that sort of should and shouldn't. Not that, not that anyone shouldn't but I think certainly categorise those that should”). Participants suggested that people who are “kind of positive and energetic” and “quite happy without it” may struggle to engage or do not need LKM as much, while people with “poor emotional intelligence” might benefit. One participant focused on the idea of empathy, suggesting that because they had a “strong degree of empathy” that LKM might not be as necessary and that other approaches might be better suited to more empathically inclined individuals. Another participant introduced a slightly different view, suggesting that they could benefit from these types of programmes but that it



depended on shifting needs: "...I don't really have to feel unhappy to meditate at all but I think it's something for me that if I do go through periods or in the future maybe feeling slightly unhappy or anxious then it would be something that I'd be probably very uhm likely to do". Furthermore, the data identified that happiness is not a constant state of being but that it goes through ebbs and flows and that practicing LKM "could probably massively help people's ins- understanding about this". One participant speaking at length about being an introvert indicated this may have affected engagement, while others indicated that being "loving and caring", willing to be "open" to new things, being "reflective", having "emotional intelligence", being able to be "accepting" and able to "take a step back" may have facilitated engagement.

What all of these expectations have in common is best summarised by one participant who indicated that "the guided meditation aspect wasn't the right fit for me I don't think". This quote highlighted the impact that a certain perspective can have and how a rigid adherence to this perspective can make it difficult to engage if the experience does not match the perspective. For example, one participant stressed how previous experiences with therapy had been useful and had enhanced engagement rather than hindered it ("cause I was just thinking it would be difficult for me to get most out of it had I not like eh been able to draw on previous meditations or previous CBT") while another participant shared that previous experience with yoga had helped ("I mean I I that was kind of easy for me to get into that state cause I do that in my yoga practice like usually at the beginning of practice when like you make like a devotion I usually pick someone that i'm really annoyed at").

The potential consequence of this mismatch between expectation and experience was identified in how participants described the programme as prescriptive and constraining. One participant indicated preferring the grounding introduction to each session because it "was less prescriptive than the lovingkindness guided meditation". It is possible that for this participant the structure was constraining rather than containing and that they expected to experience something different. Another participant described the programme as a "forced" practice of thinking about others, while another described it as a practice that focused on "specific emotions", potentially leaving these participants feeling coerced into meditating in an unanticipated or unwanted way.

In turn, some participant described preferences for activities that felt less constrained, including meditation practices ("I liked the grounding exercise and how it was less prescriptive than the loving kindness guided meditation" and "yeah I find uhm probably

because I imagined it might be because with landscape based kind of meditation I'm allowed to be more creative in my mind and explore you know so I can create that scene as much as it's guided") and other activities ("and I think what I find relaxing is daydreaming and you know not thinking of anything and being able to think creatively and not sort of be restricted in a way" and "whereas when it was more of a holistic experience uhm kind of when my body was vibrating I found my mind was able to relax more"). These quotes stress how for some participants the programme stymied creativity, flexibility and was seen as being restrictive and limiting, likely contributing to their belief that LKM was not the right fit.

**Motivation.** An important component to this subtheme was the importance of motivation in fostering engagement ("whereas i've always been quite open to kind of giving it a go ... I just haven't really done it" and "it's difficult to get people to do them if they don't want to"). While the previous descriptions of this theme described how perspective influenced engagement, one participant in particular stressed how a willingness to be open to the process was key ("I don't know what it is but I, I don't often persist with them even if they do have quite a big impact" or "I should do it a lot more than I am. I always mean to and then it's kind of I don't know just doesn't quite happen"). The idea of "buying into" the programme was raised suggesting that being "sceptical" might have kept participants from engaging fully.

The feeling of being a passive "passenger" came up in the data with the participant wondering whether agency and motivation affected the results of the study ("your willingness to participate will effect how much you get out of it (?) uhm but I I wasn't uhm but like uhm if if your yeah can you can you get a large can you can you get a conclusions out of it if if people who go to it aren't sort of even themselves"). This quote seemed to suggest that the participant believed that other participants may have had a more satisfying experience because they had chosen to and wanted to be there ("It seemed like all the people who went there barring me on for the [name of the location] one uhm were really like into it. Uhm and like they all chose, they all saw the flyer and went because they really wanted to buy into it. Whereas I was more sort of dragged along..."). This same participant stressed how you need to want to benefit from it to put the effort in to see benefits ("though I guess with mastery of a meditation techniques probably good if you do the same one over and over again but that yeah that's not really what uhm I don't really want to master it (laughs)").

**Lack Of Diversity.** A few participants commented on their expectations relating to socio-cultural factors, for example one participant described the programme as "a bit too commercial for me". The lack of diversity and potential for cultural appropriation or cultural

tone-deafness was identified in the data when the study was criticised for locating the intervention in a yoga studio predominantly visited by white people in a predominantly black community (“it wasn’t at all diverse, despite being in Peckham”). Expressing this seemed to be accompanied by a nervous anger exemplified by the following participant’s response:

...niggling feeling that I that I couldn’t like couldn’t get like I was kind of like trying to suppress of like uhm eh this is being quite a kind of white Western centric take on uhm like perhaps something that was like initially like a Buddhist thing but it’s like a very sort of uhm like like sanitized uh version or with that kind of meaning taken out and like in the context of it being like in uhm like a quite kind of white space within a very like a kind of African space of the Peckham High Street just the kind of symbolism of that was like sat a bit uncomfortable with me at points but like that uhm I’m saying that from like a very kind of like a (laughs) overthinking critical perspective. I don’t I don’t know if that’s even relevant but like it’s just something that was kind of in the back of my head. If I’m like completely honest, uhm.

These reflections occurred around the time of the Black Lives Matter protests and highlighted the importance of considering how such a programme might be experienced and perceived from different perspectives and cultural positions.

One participant stressed the importance of ensuring that such programmes were available to all (“it would be great if future programmes are advertised more widely to bring in a more diverse range of local residents, for example through collaborating with local community centres, health and social services and public education institutes”) and how it could have “quite a sort of radical potential for people who wouldn’t like might be like ehm basically not you’re kind of white middle class women like me who might might pay for a (laughs) meditation course”. The fact that it was free was identified by one participant as an important factor, suggesting that accessibility might play a role in how individuals engage with the programme but also how accessible it is to diverse communities.

#### **4.4.2 “I Didn’t Really Want To”**

Another subtheme incorporated the researcher’s sense that the data captured participant resistance to engaging with or being affected by the programme. This might have contributed to the difficulties experienced. For example, participants expressed feeling that their experiences were unrelated to the practice, with one participant attributing only about 15% of their experience to the intervention itself. Participants described attributing changes

to the environment, their personality, normal maturational processes and life experiences (see Table 19). Some participants insisted that changes could not be attributed to LKM as it was too brief ("a one uhm forty minutes four times it's difficult to uhm obviously like it's difficult to attribute like anything external to that and particularly even like maybe subconsciously").

**Table 19**  
*Factors That Contributed To Change*

Factors that participants felt were unrelated to the programme	
Environments or seasonal	"A hectic eh world such as London" "Working environment" "New situations, so I have to be" "Change of the season" "It being lighter"
Personality	<i>Changes in personality –</i> "I've shifted my mindset of thinking to be more eh less of controlling smaller details and more just accepting things are eh beyond my control" <i>Personality stability –</i> "I'm always like self reflecting" "The way I process emotions and how I feel and think is is probably strong" "I'm a very uhm introverted guy so eh I don't usually reach out to other people and especially in this situation"
Normal maturation process or a particular phase of life	"I think it's just all part of kind of growing up and going into adulthood and figuring out what you want to do" "I don't know maybe again it's age or confidence and work or whatever" "part of like a big like phase for me of like learning I guess about myself and other people"
Experiences in life	"I probably think of it more as changes in my life rather than from lovingkindness" "Circumstances" "Was more that I was put into those situations and had to do it myself. I would have otherwise been lazy and just been happy (laughs) where I was." "There's just been a lot of changes in my life like eh new job and stuff like that. Yeah and I'm moving house and stuff yeah." "Just seemed like in the context of like, like all these other sort of things that are happening in my life and the busyness of it" "I'm more eh sort of in a phase of uhm growing out my friendships and getting more friendships whereas before while I was in the programme programme I was more of a uh maintaining friendships and so its a growth phase now. And but I think that's just more circumstances in my life"
Changes in thinking, behaviour, emotional state or relationships	<i>Thinking –</i> "Spending a lot of time like thinking like about like myself recently" <i>Behaviour –</i> "Keeping up with meditation or sitting yoga and like engaging with my body" "Just sort of having the uhm the carving out time to to just do nothing" <i>Emotional state –</i> "Just more like calm" <i>Relationships –</i> "It's like a whole new kind of feeling"
Factors that participants attributed to the programme	
Connectedness	"The reassurance that everyone in the room and everyone out of the room is probably also thinking what you're thinking" "Like feeling more aware of other people around me like in the street"
Empathy	"Empathy ... I feel like that's the, what my impression of it is, like that it's one of the focuses of lovingkindness" "Empathy and stuff that have made like a really big shift" "I guess like I didn't think about meditation and lovingkindness as a as a technique to doing that [developing emotional intelligence] but I could see how it could be (pause) ... if you were focussing on empathy for like twenty-four weeks then it could help you"
Feeling loved	"Feeling loved by others, was powerful." "Really close to these people or my parents do really love me"

Participants described being uncertain or cautious about the effects of the programme, saying that maybe it had an effect ("uhm so you know that could like be something to do with

the program", "you never know like maybe the lovingkindness helped me to process these things better" and "I didn't think uh it was a direct consequence I think some of my (?) may have changed from eh from that session"), while others remained sceptical ("uhm and I don't know if I would be able to pin them down specifically to the meditation") or indicated that it would take time for effects to be evident ("I think it would take a long time to train my brain to really enjoy it and understand it" and "I think it would take a very long time to become a big part of my life"). The data showed this avoidance was not only directed at the meditation portion of the programme but also at other aspects such as the research portions, with one participant indicating they did not want to answer questions ("I don't want to repeat like everything").

Not only did participants create distance from the effects of the programme, but the data also showed evidence of a more general sense of emotional avoidance ("you know some people are just kind of quite closed to it and just think 'oh it's not really for me'" and "I can't be just like fully kind of immersed in this as a thing"). One participant expressed avoidance of the programme more indirectly, indicating they were not giving themselves enough time to engage ("every time I was like rushing to do something afterwards"). Interestingly one participant seemed to create distance from the responsibility of their engagement by shifting the burden of engaging from themselves to blaming the programme ("oh my mind is wandering because I can't do this' and then sort of by the end of the last session I was probably thinking 'this is just this is might actually be this kind of practice and this program as opposed rather than me' (laughs)").

There were also indications that this avoidance was a more temperamental experience unrelated to the programme, with one participant indicating that "I can't really think about that" and another indicating a tendency to distance from feelings more generally ("I think I've always been willing to dismiss them ehm or or reject them as as well as feelings of anger I kind of just put them away and say that I don't want them"). In what felt like a throwaway comment to the researcher ("...not like to minimise my feelings"), one participant highlighted how often feelings are pushed to the side. Some participants described dissociative experiences, with two participants stressing a tendency to disconnect from the body: "very like uh mental i'd say like rather than physical" and "occasionally body almost goes not numb but you know when you're just sort of not really aware of your of your body, I suppose uhm when you're so focussed on your mind". These data captured an avoidant coping strategy that likely added to the overall difficulty engaging with the programme. Non-verbal cues like delayed responses and filler words also contributed to this aspect of the theme.

**“I Don't Really Care About These People”.** A relational component formed a key part of this subtheme. Reflecting on her own experience during the interviews and during coding of statements, the primary author noticed that she felt distant from participants at times and wondered whether this was indicative of participants' unconscious desire to create distance from her and the programme, for example through criticism of it. While some participants might have had a genuine preference for non-LKM related meditations (“I would struggle really to commit a lot of time to it when I seem to be quite happy without it”), others may have responded more defensively as a way to deny and avoid the uncomfortable feeling that LKM evoked. Participants also alluded to relational distance in different ways, stating “I don't really care about these people” but also “thinking about people and really getting into my thoughts is not really a way that I find was particularly relaxing”.

Some participants described finding it difficult to choose whom they would focus on in the meditation, instead engaging in a “distracting element” by rotating through different people (“finding it hard to pick someone I that I felt loved by and I loved I almost found myself (laughs) sort of thinking too much into it and thinking 'oh maybe it's my mom, maybe it's my dad's (laughs) maybe it's my boyfriend, maybe it's my sister’”), imaging multiple people to avoid choosing (“maybe it was me wanting to know uhm, you know trying to imagine all three because it's, maybe I found that more interesting to think of all of them in that situation rather than just one”), imagining “abstract concepts like countries” or creating a “hierarchy”. These data captured avoidance of the interpersonal (“uhm like I wouldn't dwell on things for as long. I would kind of think to the next person or eh think about something else and then get distracted”) that could be rooted in interpersonal vulnerabilities (“I don't know which one would love me more than the other”).

The data also captured a process of othering that typically occurs when individuals are distinguished based on their inclusion or exclusion within a group. Those who are excluded are often seen in a more negative light compared to those in the in-group. One participant indicated that it “feels harder to send them to those that aren't loved – as if they don't deserve it”. It is possible that for this individual those who were unloved in their mind became part of the out-group, were viewed negatively and therefore became undeserving of the benefits of being in the in-group. The data also shed light on what might contribute towards this othering tendency. For example, sending lovingkindness to others seemed to be harder for one participant who noticed resistance if the well wishes were not reciprocated:

It was easier for me to imagine being loved but harder to love when I'm not feeling or getting anything in return, eh makes me feel selfish and that I've been unaware of a demand to or expectation to be loved when I am not actively pursuing yet push loving, loving others.

Some of the data also captured a tendency for self-reliance and independence. One participant stated a preference for meditations that are “malleable to people individually” and another who stressed the importance of having a choice (“... if you've seen lots of different ways of doing it then you can pick your own best one”). By ensuring space for choice and agency, participants may have avoided the potentially stressful experience of being affected by someone or something else. This might have resulted in participants perceiving others or the interventions of others as intrusive, as suggested by the following two quotes: “stop myself from being uh taken over by ideas that are impulsive” and “so I don't think it was like eh manipu- eh not manipulated but like eh changed by the programme”.

The presence of rigidity was also evident with participants expressing they did not want to be affected by others (“I would be surprised if I changed my, the way I behave”, “my personality isn't really, isn't really that flexible” and “i'm like cynical. I wouldn't wanna, I wouldn't wanna change my way of thinking”). This may have manifested for some participants in creating distance from the facilitator by “pre-empting the thoughts before she said them....I was kind of doing it at my own speed which was either overtaking her or just pre-empting yeah”.

#### **4.4.3 “I Can't Relax”**

A third subtheme captured a sense of anxiety that impacted participants' experience and likely contributed to the difficulties experienced. While some participants expressed this quite directly (“and it's like a little bit, like you know, just like a little bit, like anxious beforehand”) others expressed this more indirectly. For example, some participants found themselves “overthinking” or finding it “quite hard to switch my brain off”, which may have indicated different manifestations of anxiety such as emotional dysregulation and worry. Participants also noticed being distracted or that their mind wandered (“mind racing a little bit which is eh probably the, the opposite like (laughs) intended”) and while mind wandering is a normal experience this could also be indicative of anxiety. One participant described feeling “frantic”, drawing attention to the mental and physical aspects of anxiety and the mind-body connection. This was also captured in other statements including the following: “I was like 'oh my God this is like so long to lie here with my eyes closed' or like you know like 'I'm getting distracted. I'm thinking about these things. I can't like relax my body’”.

Another indication of anxiety was the presence of intolerance of uncertainty (“if I have the information of what a technique is trying to do to me I’m more receptive”). One of the participants indicated feeling uncomfortable not knowing what the others in the group were experiencing (“I couldn’t really get a read on people which for me like makes me uncomfortable”), highlighting how uncertainty in relationships was unsettling. This discomfort may have also been evident in non-verbal cues throughout the interviews including nervous laughter and long pauses. Not only did uncertainty in relationships seem to be unsettling, but the presence of others seemed to elicit a sense of social anxiety that was present throughout the data, with participants hyperfocusing on what they thought others might think about them, like this participant who stated:

If I open my eyes the person leading it will see me (laughs). So I have to keep my eyes closed and it's like the social, it's like, it's like the social (laughs) aspect of being in a room of people, it's like you can't move because other people are going to hear, you'll ruin it for them. You can't open your eyes because a person will see you and they'll know that you're cheating. If I'm at home I can totally cheat and no one could see me cheat uhm.

This social anxiety was also evident in how participants engaged with the primary researcher. For example on a few occasions the researcher felt participants were trying to convince her of the profoundness of their experience (“i’m like willing myself to like have, have, be really affected by it and kind of like throw myself into the experience like uncritically”), suggesting a concern participants might have had with how they were being perceived, with one participant noting feeling “self-conscious”.

A self-directed anxiety was also present in the form of self-criticism. A number of participants described themselves as being critical, both directly (“I’m sort of naturally quite a critical person, which like is, can be like a good thing and a bad thing”) and indirectly by focusing on things being right or wrong (“I kind of probably wrongly think there's like a right way to do it and kind of think 'oh I'm not doing it right'" and “is this the right am I thinking the right thing”), by trying to do things “as best as I could” and “correctly”, being self-critical (“I didn’t try enough to” and “oh my mind is wandering because I can’t do this”), and wanting things to be a certain way (“she was like you know you can let the words wash over you and I was like I don't want to do that. Like I want to like be like active I guess in like my resting state” and “like trying to kind of find the perfect position”).



#### 4.5 “Difficult...But Necessary”

In contrast to the descriptions of engagement being stymied by the difficulties of the programme as outlined in the previous theme, this theme captured that the difficulty of the programme is what made it useful (“still quite difficult. Uhm but they're necessary”). Rather than being a barrier to engagement the difficulty of the programme seemed to increase engagement for some participants (“I didn't really want to, pro[j]tect lovingkindness onto was the most useful and most difficult to do”). Participants described how being “challenged” or “confronted” facilitated change. For example, one participant noted that the programme “made me feel very vulnerable but also something that I needed to tap into”, suggesting that the complexity and the difficulty of the experience was important.

Building on this idea, the data showed that for some participants the programme seemed to encourage exploration of resistance, including asking questions such as “why that resistance is there” or “the people that you don't conjure up those feelings for like naturally or kind of like enthusiastically, uhm like how can you kind of like find a way to like train yourself to do that”. This curiosity to better understand included confronting previous assumptions about LKM. A number of participants expressed surprise by how they were affected (“it provoked more than I expected”). One participant highlighted that the experience was something they hadn't experienced anywhere else (“I don't think there's really like anywhere in my life that I maybe like do that in like an articulate way”), while another indicated how the experience cultivated a respect for people who do regularly meditate (“I found it impressive”). Exposure to the experience was viewed as “one positive thing out of it” and made one participant “interested to find what might work” and “it's just good to know that there's different types of meditation. Uhm and that it's open for me if I wanted to uh explore it more”. These data begin to shed light on a potential mechanism; that by going towards or connecting and wrestling with these difficulties and vulnerabilities the programme may have facilitated change.

The data indicated that the ability to move towards or away from difficulty may have been influenced by the phase of the practice. Some participants indicated that they only found the first session useful in part due to its novelty and because they felt challenged (“the most productive one for me was the first session because it was completely new, ehm my brain was kinda challenged and I was thinking and kind of trying to meditate in a way I hadn't done before”). The newness of the intensity of the experience also seemed important (“I remember like the very first session like made me feel really like emotional and kind of like upset”). One participant commented on how the newness was unsettling as it was unknown,

making it difficult to engage, while another participant stressed how the unknown was exactly what made it so powerful, noting that “it’s about the learning and the discovering and finishing where you don’t think, where you don’t start”.

One participant found a successive layering of complexity, where one phase might have facilitated engagement with the next (“first session the stuff about like thinking about someone who loves you like that felt really profound and quite difficult. But then moving onward into the like later sessions the stuff that felt really profound was like thinking about like sending that out to other people”). Some phases were identified as useful because they were difficult (“I didn’t really want to project lovingkindness onto was the most useful and most difficult”). One participant for example expressed how initially sending lovingkindness outward was a challenge (“uhm yeah it was a lot it was a lot more difficult to do that at the beginning uhm because I didn’t want to (laughs). I didn’t want these people to be happy so I was like nah nah (laughs)”), suggesting indirectly that over time this resistance may have lessened.

**Benefits Of Repetition.** Although described by one participant as “quite long”, the length and the repetition of the intervention may have played an important role, with the majority of participants expressing that more practice and repeating the same practice was or would have been beneficial (“think that repetition is can be quite ehm powerful”). While some participants commented on the benefits of single sessions, even as brief as 10 minutes and being surprised by how quickly they noticed effects, others commented that engaging multiple times with the programme resulted in more powerful effects (“I think you can, you can kind of or one could have done that on like one session to the whole process but uh I think that would’ve, would’ve minimized the impact a little” and “the more sessions I did the better I got at doing that”).

A number of participants commented that they wished they had gone more often, thinking they would have experienced more benefits. Due to the similarity week after week participants experienced consistency, which helped them to not only become familiar with the practice but also to “see it building on itself” (“like I’ve noticed a lot more because it’s happening like consistently”) allowing participants to notice things they might have missed the previous time (“I think it’s been a gradual change”). Participant noted how the repetition lessened the difficulties of the practice (“maybe...the repetition would have been something that made it easier”), that the programme itself helped overcome difficulty and resistance

through repetition (“just kind of repeat it, by the end it got in”) and how the repetitiveness made it less intimidating:

I wasn't coming every time being like 'oh my God like this is really scary. Like I have to lie here for so long'. Like I didn't feel like that at all because I was like 'I know it's going to happen. I know it's gonna to be like. I know how I'm going to feel. Like I know how to like deal with this.

It just feels a lot like less scary and I think that's really because of having had that frequency of like multiple sessions at a time.

Repetition might have contributed to what one participant described as a fuller experience (“yeah to keep focussing on it and you kind of get deeper and deeper into it and then uh it's quite effective”). One participant suggested that this depth was made possible “because like the meditation wasn't different and it was easier for me to think about how like I was maybe different or how I was approaching it differently because like does that do you know what I mean like because it was kind of same-same”. Such developments may have contributed to a perspective shift, described by one participant as “I guess the more I went the less cynical I was”. Some commented that to benefit on a deeper level, a dedicated practice over months, not weeks, was needed (“I think it could be something I probably have to do for months” and “it would take a very long time to become a big part of my life”).

#### **4.6 “It Can Do A Lot”**

The final theme captured a range of beneficial outcomes from the programme. The survey identified that when participants were asked to rate how helpful the programme had been the majority responded favourably (see Figure 9), with ten out of twelve participants giving it a score of 5 or above (10 being very helpful and 0 being not helpful). Participants described the programme favourably and as something that “can do a lot”, including have “positive benefits”, with one participant stating that “it has been like really really interesting and as you can probably tell from everything I said like I really enjoyed it”. Some participants were surprised by how affected they were (“uh I think I'm kind of surprised at how ehm how impactful the programme was ... it was really strong and like exceptionally strong at time”), saw longer term potential (“that was a really good feeling like I wanna get back to that”) and expressed being happy with the experience (“for the amount exposure that I had, I would not change anything”) even if it was a novel experience (“I really I've not done that before and it was ehm yeah that was really nice”).

**Figure 9***Survey Data of How Helpful Participants Found the Programme*

*Note.* Higher values indicate higher helpfulness scores.

Participants described enjoying the programme because of the effects they experienced from it. Sometimes these benefits were felt in or right after the session and sometimes between sessions. One participant commented that unlike other practices, the impact of “thinking about someone like that” was felt most strongly in “outside life”, highlighting that the intervention had a potential to have a generalised effect.

A few participants commented on the length of the effects. In addition to participants dismissing being affected at all (“I can’t say I’m I you know still think about it today”), participants also expressed noticing effects did not last (“I kind of uhm enjoyed the effects of it afterwards but like not for that long you know”), “hoping this will last”, and the strength of the effects over time even when not practicing (“uhm I was surprised that I uhm got quite a lot out of it uhm uh especially like since it stopped” and “it was really strong and like exceptionally strong at time but it was only a few hours and it’s like had a real long lasting kind of ehm impact and I still think about it a lot”).

One participant seemed to distinguish between conscious and unconscious effects, suggesting that certain processes might last while others may not and that some processes might be “more of a well a subtler change, probably slower” and “but then I was, it then, it was like, it, it kind of probably lasted for shorter than I’d hoped in like a conscious sense”. Furthermore, another participant commented in one of the post-session notes that the effects that lasted were different longer term than they had been in the short term. Specifically this participant described how “the details of the memories kind of fade away and it just leaves like the feeling”, suggesting that something resonated even if it was not

clear what exactly it was. It is possible that the embodied effects of the programme might have been the most resonant for some participants.

A number of participants expressed gratefulness for having been involved in the programme and one participant expressed wanting to share it with others because they had found it beneficial (“I almost ended up kind of saying to people ‘oh you should try it’”), also suggesting that it was “something that everybody should try”.

A number of subthemes were identified that explored how participants had found the intervention helpful: Becoming “Conscious”, “An Oasis To Come Back To”, “New Ways to Nurture My Mind and Body” and “Think A Lot More About Other People”.

#### **4.6.1 *Becoming “Conscious”***

The data suggested that engaging with the programme contributed to the development of attentional awareness (“trying to be present” and “tuning in”) but also that engaging with the programme moved participants beyond awareness into understanding, for example by allowing participants to feel they were becoming more “conscious” as one participant put it. This development was exemplified by a participant who described resonating with an experience of feeling loved that they felt was powerful (“you know I am really close to these people or my parents do really love me and I’m really lucky”), suggesting that not only did participants notice what was arising for them in that moment but that it connected to a deeper emotional understanding too. Participants described emotional explorations and “profound” insights within the context of the programme, including feeling “very sensitive” and “vulnerable”.

Reflecting on the programme seemed to elicit an awareness of personal development. For example, participants noticed their strengths (“being supportive is my talent”), areas of difficulty (“I probably used to worry about that more than I’d admit” and “ehm it’s difficult as an introvert”) and how they want to live (“I want to be a loving and caring person, this is who I am”). Furthermore, a number of participants reflected on different aspects of their development including acknowledging the challenges they had encountered (“well it’s kind of been a bit of a road since then”), the on-going nature of their journey (“I suppose it’s something that I’m still working on”), the potential positive outcome (“no one’s ever a finished, finished process but the eventual end state of myself say in six more months time will be a better all rounded personality”), the developmental nature of change (“maybe it’s just growing up...there is still eh long road ahead”), the uncertainty involved in personal

evolution (“it’s about the learning and the discovering and finishing where you don’t think where you don’t start you know so. I don’t know where I’d finish”) and an awareness of patterns and a longing for change (“address it and sort of snip it”). These data highlight the potential introspective and reflective nature of the experience, though whether this is attributable to the intervention or whether the interview itself contributed to this could not be ascertained in this study.

Thinking about the past, one participant reflected on specific aspects of growing up with disappointment, for example coming to the realisation that there is a lot left to learn (“and then I find that when I actually come into the workplace for example you kind of realize that you’ve got so much to learn”). This same participant also reflected on life’s developments with awe, noticing that the expected path of life had not worked out for many of her friends but that they had found happiness forging their own path (“everyone’s found like it’s taken everyone a bit of, bit of time to kind of get into the groove of it and figure out if they enjoy it or are they just here because they feel they should be here and the people that weren’t enjoying it moved away and they’re happier”). One of the developments these quotes seem to describe is the experience of cognitive flexibility, for example when the participant recognises that there is more than one path in life. However, these quotes also reflect a more general developing awareness of life as an evolving experience, with participants seeing their lives within a larger context of time, which may indicate the development of meta-awareness and defusion.

Not only did participants describe noticing more, but they also detected how different areas of life are connected. For example, participants commented on the connections they noticed between their mind and their body (“I wonder if uhm like my my physical comforts definitely affects my eh mental state”), between their emotions and their body (“while we experience emotions my body was also reacting differently”), between feelings and thoughts (“feelings feel more more more authentic than thoughts uhm ... it kind of made made it so that I could identify the feelings with the thoughts”), and between thoughts and behaviours (“the way that i’m thinking about stuff is obviously making me like react to things or process things like in like kind of a different way or just or just be conscious”). Although not all participants felt that such connections were part of their experience it is evident that for some participants noticing connections between different areas seems to have contributed to a developing awareness.

Some participants noticed that this awareness cultivated a desire for change especially patterns they felt were getting in the way of them living their lives more fully. For example, one participant noticed shifting priorities like recognising the preciousness of time with friends, suggesting that this participant was noticing an emotional experience (the joy of feeling connected with friends) that was connected to behaviour (spending more time with friends) and that this was meaningful. For some participants these changes signified an awareness of reoccurring patterns rooted in the past and an awareness that these patterns would only change by creating a new pattern that met their needs.

Thinking about future potential and growth, one participant commented, “I’m trying to be more myself”, while another indicated “I’m trying to be the version, the eh best version of myself I can be”, both of which reflect a key component of humanistic approaches, namely self-actualising potential. One participant was prompted to reflect on their personality structure:

...i've been trying, i've been purposefully and also just sort of not purposefully moving towards INFJ which is intuitions. Intuitions are the same thing where you just like, ehm you take a step back and you just try and you don't try and control everything as much.

Participants also described being more confident and accepting of themselves as they are, suggesting that the programme helped some of the participants to become more congruent and that the intervention may have created space for some participants to reflect on their lives and potential change in a way that supported positive psychological development and growth.

**Curiosity.** Related to awareness and insight participants expressed a sense of curiosity about their experience, the research, meditation and LKM. For example, participants in the first two cohorts asked questions about the repetitive nature of the intervention (“why why that is deliberate as opposed to kind of having a different session each week or that's specific for the study?”) and came to a new understanding once this was discussed with the primary researcher including the benefits of longer-term practice (“but that's interesting that if it I wonder if, like you know how I was saying because I did only go to three uh rather than actually finding it easier if I'd done it more long term ehm probably it was too short to really get into it and uhm get better at it”) and the limiting aspects of research (“it's like not as interesting as if it was different every time but I know like because it's a study where you

can't ensure everyone's going every week you can't really uhm do it like that"). Furthermore when participants were asked to reflect on a potential mechanism this led some to ask follow-up questions about the hypothesis, the study's aims, and the role of mentalizing, connectedness and motivation. One participant wanted to know more about the potential for interpersonal change, asking "how can you kind of like find a way to like train yourself to do that", highlighting the reflective space that the intervention seems to have cultivated space to consider their own experience. Another participant queried why they struggle to persist with meditation ("I don't know what it is but I, I don't often persist with them even if they do have quite a big impact"). Finally, participants also asked questions about the study being published, with most expressing a desire to read it ("are you gonna like publish your thesis and stuff and can I see it?"), suggesting a potential interest for further learning and development.

Some participants expressed a wish for these kinds of group opportunities to be more available and wanting to "do more LKM". Participants expressed a curiosity to practice and learn more about this type of experience in general, with one participant asking how they could train themselves to give love more freely, another expressing interest in the overlaps between therapy and meditation, and yet another wondering whether engaging with this practice would lead people to engage more with other types of introspective practices like yoga. In one of the follow up interviews one participant highlighted how their mental health had "improved and part of that has to do with well like keeping up with meditation or sitting yoga and like engaging with my body", highlighting how maintaining a practice, even if it includes similar but different activities, can benefit wellbeing.

The potential for future developments was also evident from the data, with participants responding to questions about what might have happened if they had attended more often with a range of responses including being "more open minded to trying meditation", finding it "easier to come back to that state", experiencing the benefits sooner, more frequently and intensely, having a "whole experience", and even having the potential for "a personality change" and societal changes. While some participants were dismissive of the practice and potential effects, others indicated with a sense of humility that it would take time and dedicated effort but that "it could be really beneficial and it kind of encouraged me to carry on afterwards". Some participants hoped that the programme might help with general meditation benefits like becoming less distracted ("I think I hopefully would have got been able to sort of train my brain more to not be so distracted").



**Methods For Cultivating Awareness And Insight.** Not only did participants comment on the content of what they noticed but they also commented on how this awareness and insight developed. Journaling played a big role for some participants, offering them an additional space after and between sessions to reflect, with one participant indicating that “being able to write the thoughts at the end was really good”. Participants commented that having a place to write down their thoughts helped them become more aware (“I was noticing or like kind of things it was bringing up for me” and “there's all these quite important things that are sort of come to the surface”), remember things (“really useful ehm think it would have been easier to let it sort of float away again if we hadn't written it down”), notice changes (“write down and like think about uhm like changes”), create clarity (“like the diary just helps to ehm (pause) eh write the idea down and then build on the idea until it's fully formed and then that's a fully formed”), and cultivate self-awareness (“I don't think I would be able to speak so uhm authorita- authoratively about my own self without it”). As suggested by the quotes above, important aspects of journaling included memory and sense making.

Some participants indicated that they had a journal but that they had not used it regularly or at all (“I always mean to and then it's kind of I don't know just doesn't quite happen”), with some expressing a desire that they had. Having a separate space to reflect on things that was not as prescribed as the programme, which had a set time, location and structure, seems to have facilitated a space for some participants to be with and explore their experience more freely (“bit like introspective and like thoughtful but in a not in a way that's like you know like stressful or being over analytical at all”). For some participants it cultivated a space for exploring different levels of experience, with one participant noticing that journaling allowed for a “confrontation of surface level feelings” that allowed them to “get to deeper feelings”, while another participant noted that journaling allowed for an exploration in a “granular way and like looking at like the close details”. Journaling seems to have facilitated a depth of exploration alongside engaging with the programme that was “emotional-ly based”.

Interestingly one participant commented that the interviews themselves had been the most helpful, suggesting that something about being asked questions and having the opportunity to reflect on experience was powerful. The implications of this are important to consider for the structure of the programme and how it was implemented, since another participant lamented the fact that few people had shared their experience in person when they were given the opportunity to do so. It is possible that the environments created during the

programme were not conducive to this type of reflection but that with a number of amendments this might have been possible.

#### **4.6.2 “An Oasis To Come Back To”**

A second subtheme identified how the programme made participants feel, including “really strong emotions”, unexpected emotions, and emotions that resonated deeply. For example, one participant described “feeling a lot happier these past few weeks”, though other participants also referenced feeling “calm”, “collected”, “chilled out” and at “peace”.

Participants reported mental health improvements including improvements in anxiety and mood, with one participant indicating that without the programme she would have been “much less stable” and that without the journey that coincided with her engagement with the programme “I don’t think I’d be in a good place”. Participants indicated experiencing less irritability, judgment, worry, rumination and panic, and that they felt better and more positive. Physical symptoms were also affected, with one participant noting that they “I didn’t feel as ill” after participating in the intervention. Participants noticed that physical agitation reduced while relaxation increased and one participant in particular described a heightened sense of agency over their body: “...like my body is mine and I can, I have more control over it”.

Participants identified a number of specific emotional experiences that may have contributed to an overall positive emotional state. One of these new emotional experiences was a sense of groundedness that sometimes defied words: “Uhm (pause) not uhm not that I can articulate but just more grounding I suppose and more (pause) I mean it it kind of brings me some peace and brings me back to where I am. It’s kind of hard to explain I suppose”. Other participants described this new experience as “kind of like an anchor...something to come back to”, “brings me back to where I am” or “I think that’s kind of like an oasis to think back to”. Some of these quotes may have been associated with an image or metaphor. These types of visuals can often be helpful in therapy as a grounding strategy, acting as a method to help individuals return to an emotional state that is calming, as described here by one participant: “easier for my to come back to the centre...coming back to what’s what’s important”.

Participants spoke about acceptance. The participants in the programme not only identified they were becoming more accepting but they also spoke about the consequences of that acceptance, including learning (“just accept that and uh learn from it”), confidence (“I felt eh more sure of myself” and “I’ve probably got more confident in my job”) and self acceptance (“I’m more accepting eh of the losses and failures” and “more at peace with my thoughts and

not let them dictate kind of what I, who I am or who I think I am"). Gratefulness was also identified, with one participant describing it as "like a big rush of gratitude...i've written the word gratitude like twenty times on this page" that suggests it was a big and intense experience. Similar to other experiences noted above, gratefulness seems to have been connected to a process of stepping back and seeing the greater context, with one participant noting "I guess it made me realise that I'm like fortunate". Participants also described experiencing kindness, love, compassion and self-compassion. One participant for example noted in the post intervention survey that the experience was one of "gentleness. Respect & compassion for all", while another noted that the programme "helped me to be kinder to myself" and another who said that "I realised that I should really flip it and be compassionate towards the people".

**It Became "Less Scary".** The data also captured a number of factors that contributed to improving engagement. For example, one participant noted feeling "respected throughout", suggesting that the intervention remained a safe environment. Participants described a number of factors that improved engagement, including the environment, personal circumstance and personal qualities. The environment seemed to be a prominent factor with participants commenting on the cleanliness ("peaceful, clean surroundings"), the lights ("turn off all the lights"), the venue ("really cool place") and the atmosphere ("relaxed atmosphere"). One of the facilitators incorporated background music that some participants found enjoyable although it was not part of the intervention. One participant commented on the role of the general environment in improving motivation to meditate ("more time, space, the greenery, the fields. I could very easily imagine if I lived there permanently it would be a much bigger part of my life"), though one participant commented that the location was "less relevant" than they had thought it would be.

Participants commented that the programme was a "guide" or a "sequence of like things to visualize" that may have helped navigate the experience. One participant indicated that the programme "helped me to like latch on to something", suggesting that the structure offered guidance and support to some participants. For example, one participant stressed how during a particularly difficult phase, being guided helped navigate this challenge ("very glad that the instructor guided us to think about some1 we felt mild tension with, as opposed to an 'arch enemy' because it made it much easier"). Participants commented on the importance of the facilitator, especially the quality of their voice as something that could be "soothing" and "welcoming". One participant reflected on a deeper level impact that the facilitator could have: "since we have been asked to feel loved, I felt like I needed to listen to someone's

voice almost being taken care of like a mother would do. As a result I felt better, peaceful. So I could love others better as well”.

Some participants commented on specific ideas or sentences that had been useful, satisfying or grounding, including “imagine thoughts being like a puppy that you are trying to train”, the idea of the universality of suffering, the permission to fall asleep or “let it wash over you” or specific instructions like “find a comfortable position”. Reflecting back on these comments, it is possible that these instructions had resonated because they either offered containment and structure (“she said those in the same place every single week and I weirdly really liked that”) or they offered flexibility and space to allow individual agency around new experiences in a compassionate way.

During the analysis and write up of this subtheme, the primary researcher was reminded of experiences similar to those that occur within a therapeutic setting. Therapy can be a taxing experience especially when working through deeply rooted patterns. However these, often stable patterns, can be worked through in reparative relationships such as the therapeutic relationship. This subtheme may suggest that the programme helped create space to work through personally relevant areas of difficulty in a similar way to therapy. Instead of doing this work with someone else like a therapist, participants seemed to have done this on their own, becoming their own therapist, guided by the safety of the programme and facilitator.

#### **4.6.3 “New Ways to Nurture My Mind and Body”**

A third subtheme captured the changes participants noticed in their reactions, including thoughts and behaviours (“different uh way of doing things or a different view of things or different opinion of things”). For example, participants noticed that ruminative patterns reduced and that the content of their thinking had changed (“you think in a slightly different way”). Participants noticed how their thinking slowed down and that the practice gave them a “slight pause” and was a “bit like reset”. The ability to zoom in and zoom out and see things within context was also identified (“it helped me see like the bigger picture” and “just maybe puts into context probably”). Similarly, one participant described how they had been able to unhook from thoughts to notice patterns rather than being stuck in the thought content, which might be indicative of a shift in information processing similar to defusion or decentering.

A shift in emotional reactivity was also captured in the data (“...they’re still bothering me but maybe I’ve like taken a step back and think a bit more...it’s like choosing what to react to”).

Therefore it is not surprising that participants noted feeling less cynical, less judgmental, less controlling and more accepting. For example one participant noted about a relationship that “..she is still like annoying in many ways but I don’t get annoyed by it” and “they’re not actually being a dick but it’s just like made me feel this way and I need to like take a step back”, while another participant described how this shift cultivated non-attachment (“letting things go eas- easier uhm more easily”). Importantly these changes had a “rippling effect” towards self and others as described by one participant, highlighting a key principle in both therapy and Buddhist philosophy that external change comes from internal change.

It is possible that for some participants practising LKM tapped into beliefs around it being egocentric, or otherwise inappropriate, which could be associated with fear of self-compassion (FOS) and a resistance to focusing on themselves. This resistance was captured by one participant who noted “it was quite hard cause there was there was like a resistance to wish myself those things. Uhm (pause) uh yeah but I don’t know I guess it’s like a neglect of my vulnerable self which actually really needs that kind of care”. This quote also identified how the resistance to focus on self resulted in self neglect and unmet needs. This was evident elsewhere in the data with one participant noting that it was difficult to dedicate attention to themselves and that they preferred focussing on other people while also noticing that this resulted in them not meeting their needs (“...easier to like send them [LKM phrases] to others because I’m very about other people and like I give and give to others but and don’t necessarily give to myself and you know respect myself as much as you know I should”).

A comment by another participant underscored the frustration about these other-oriented patterns: “what’s conflictual is that all the times in my life I was there for others, sacrificing my own needs, health, etc at the end people were taking advantage on me, in the way that they needed more and more from me. Since I always want to give, I don’t want to give it a limit”. This self-sacrificing nature was also captured by another participant, “like it’s not for me”, and likely made it difficult for these participants to take the steps to meet their own needs.

In contrast, some participants described how they became better able to focus on themselves and their needs during the programme, suggesting that participants were reclaiming their agency to meet their own needs. This was exemplified by one participant who noted, “I’m like very aware that like the things that have changed are not because like the world around me has been different. It’s like because I approach things differently”. This shift may have required a certain amount of vulnerability as described by one participant

who noted that it was easier directing lovingkindness to themselves “when picturing myself in a successful/positive moment”. It is possible that when some participants felt psychologically robust they could tolerate a self-focused practice but not when feeling fragile. One participant described how reclaiming agency was self protective, saying that “I’ll try to start loving myself again for what I really am even if people don’t seem to get it right”, bringing attention to the fact that others may not have understood this participant’s needs but that the participant did and felt able to persist in trying to get these needs met.

One participant noted a desire to “learn new ways to nurture my mind and body in different ways...I’ve been trying to take more care of it”. This desire was not unique as other participants also described engaging more with activities that cultivated experiences similar to LKM including other types of meditation, journaling, therapy, yoga and other body-centric activities like running. Participants also described eating better and wanting to make more time for the activities that were important to them. For example, one participant described the importance of making time for friends: “not to sort of take any of it for granted and think ‘oh just see them next week or whatever’”. These changes and the shifting priorities were also evident in how participants took time for themselves and their self-care, noticing the benefits of taking time for their “own energy” as one participant described it. Participants noticed that when they didn’t make time for themselves it contributed to not feeling as good.

It is possible that the impulse to engage more in self-care activities was prompted by taking time in the session to participate in meditation as participants described how participating in the programme felt like a healthy thing to do (“I’d done my kind of healthy good thing for the day”) and that it contributed to their general routine (“I enjoyed incorporating it into my routine every week”). The idea of taking time out of a day to meditate resonated with one participant in particular who identified how taking time for such self-care is not prioritised but has a big impact: “we don’t get the chance to ehh just take a few minutes to ourselves and breathe and be in tune with ourselves and our bodies...it has such a powerful effect when we do just take the time”. Taking time to participate in the programme seemed to translate to taking time out of the sessions to engage with activities that were nourishing, contributed to self-care and increased ease at prioritising their own needs and desires. One participant described how taking time contributed to being “more myself”, suggesting that making time for self may have led to a more holistic and integrated sense of self. Another important factor was a shift in prioritising self versus others’ needs, as one participant in particular noticed how following the programme the tendency to focus on others’ needs first had changed: “now I try to make myself comfortable before the others”.

A possible consequence of creating time and space for self seems to have been improved coping, with one participant indicating they felt things had become more “manageable”. A number of participants referenced how they were better able to regulate how they felt: “even the times when I get angry uh yeah I get, I’m better at managing it”, “...just wanted to jump out of my skin...being able to kind of sit with myself”, “afterwards ehm just even walk, leaving the centre uhm yeah I felt very kind of uplifted and like you know, weight’s been lifted off your shoulders” and “fade more quickly”.

The ability to cope more easily, described by one participant as a “fruitful way to deal”, might have contributed to what another participant noticed developing, namely an openness to take on new opportunities. For example one participant described a story in which they felt confidence and agency to take a different action that prioritised their needs, while still respecting the needs of others, suggesting a developing sense of assertiveness. Another participant described that the barriers that used to make prioritising self-needs difficult had reduced. These barriers or “filters” included beliefs or narratives about what was considered appropriate or tendencies to overthink a decision. After the programme this participant not only felt more free to take action in a less encumbered way (“actually there’s a kind of action I want to take and I’m just gonna do that and I don’t need to be upset about it”) but also noticed that the difficulties that often accompanied focussing on self-care activities previously had also shifted (“I would usually have to do eh a lot of research and keep comparing things but now I I try to think about my needs and that’s eh something that I want I should just eh get it”).

#### **4.6.4 “Think A Lot More About Other People”**

A fourth subtheme captured the interpersonal developments described by participants, with most participants noticing changes in their awareness of their relationships. Some participants highlighted the relational component of LKM with one participant indicating that the programme helped them think “about myself and how I like relate to the world”. The experience facilitated a “different uh perspective on the relationships with people” for example by relating to people by “sending them gratitude and well wishes” or by “training yourself to like give love more freely”. Additionally, many of the changes attributed to the programme often contained a relational element such as a developing sense of empathy, feeling loved and connectedness.

Some participants described how thinking about others was not something they had consciously done during the programme but that they noticed an increased awareness of

others outside and inside of the sessions ("it's made me like think a lot more about other people"). Participants described noticing people on their commutes home, while on the street and "sensing other people's energies". Even those who were sceptical about the impact of LKM on their experience indicated that it made sense to them that LKM would have an effect on someone's awareness of others: "I can imagine the other, like, kind of making people more aware of other's emotions is probably definitely the result of the lovingkindness".

One participant noted, with some level of surprise, that the programme resulted in thinking about others in a way that was not only novel and powerful but also deeply emotional: "more like emotional perception of you know people around you that you don't usually have". Another participant stressed how this emotional resonance was something that went beyond words ("to go to that depth I guess and not even like verbally"). Participants commented on a change of perspective regarding their relationships: "I found uh uhm a different uh perspective on the relationships with people I already knew or I didn't know yet" and "biggest changes seeing other people in a different light". Again participants noticed that this awareness contained a deeper emotional resonance, with one participant noting that they were "quite deeply thinking about you know relations you have with people". For one participant in particular these reflections contributed to a novel shift in their perceptions of their relationships: "maybe yeah you should not put people on pedestals eh too quickly and that eh you can, you can think you know a person eh yeah sometimes they revealed to be different". Although tentative, this participant seemed to be awakening to a new potential relational reality, which brought with it a mix of feelings as indicated by a latent analysis of the following quote: "sometimes there is also a not so beautiful side to that so. It's fine to accept that the reality is that no one is perfect". In a bold way this quote encapsulates a loss of innocence, a more nuanced view of others and an embrace of the messiness of adult relationships, signifying a developing emotional and relational maturity.

**Connectedness.** These changes in perception seemed to contribute to a shift in attitude and behaviour; one participant described a "rippling effect" affecting "reactions and responses to people around me". For some participants this seemed to create a defensive distancing from others ("I don't get jealous anymore or eh worried and that eh you know some people are uh maybe avoiding me actively"), while other participants noticed experiencing an increase in connectedness. For example, when participants were asked to use one word to describe LKM one participant said "connectedness". Connectedness to others was identified throughout the data and was associated with gratefulness ("god wow



this is ehm something that I really need to cherish' and so I think it brought me closer to her"), with a process of developing awareness ("I'd I think I describe it as kind of going deeply inwards in order to be able to go outwards...Yeah I suppose it's like a greater sense of connection with myself and with others"), with a sense of universality and humanity ("I felt really like...in tune with the world and myself and other people" and "there's so much more that like connects us than draws us apart or whatever"), an understanding or reassurance that they were not alone in their experience ("other people are feeling the same"), and a desire to share their experience with others ("the appreciation comes from then saying it out loud to other people").

Feeling connected and supported was identified as an important factor for engagement ("shared uh with a group of people was impactful"). While participants described feeling the atmosphere was "slightly an uncomfortable space" it is potentially because it lacked a strong community feeling ("I didn't like the fact it wasn't well attended" and "the dynamic with some of the other participants was quite awkward. Many people kept to themselves"). A number of participants described craving "more of a community dynamic to the group". One participant expressed a desire for more access to group space for similar practices ("I wish like this kind of thing was more available like I'm always trying to seek like a group or kind of a venue where I can do this").

One essential function of community that was identified was the opportunity to have a space to be able to share: "I think uh it would have been better to share the experience with the same people you know for more times". One participant described how practicing LKM alone was difficult ("I can't really do it myself") and that this differed from other meditative practices that were easier to do alone. It is possible that LKM triggered more resistance compared to other practices and that as a result the community context helped motivate participants to practice or as one participant put it, "it does not work when there aren't a room full of people".

A number of participants commented on the lack of connection in society, with one participant indicating that society is "so technology oriented and uhm we don't connect with each other as much". One participant indicated that they found it "a huge problem that like none of us really think about other people and it's really, really hard to get into that mindstate and it's really hard to like you know, like the thing I said before about it's really hard to accept love and it's really hard to like give that out to people sometimes", highlighting the complexities of connection. However, participants described how LKM fostered connection,

with one participant describing it as feeling “in tune with the world and myself and other people”. For example, the final phase of the programme where participants were asked to radiate lovingkindness to all beings was described as a “complete” experience that was powerful potentially because it created unity and a sense of belonging. One participant identified community as a strong factor as they struggled to practice LKM without other people in the room (“i’ve tried and it does not work when there aren’t a room full of people”), while another participant found that the last phase of the practice “resonated with me more strongly than this kind of individualistic picking out people”, again stressing the power of the collective.

Participants indicated that the programme offered a different way of navigating resistance through connection, namely by “sending love to everybody which is a much more positive and productive way of taking that pain”. This was echoed by other participants who indicated that the programme “kind of encouraged me to be more positive and eh in the outlook rather than just kind of being like well there’s all the suffering going on and lots of people in pain” and “rather than taking it, taking the suffering inwards it’s, it’s much more productive to, to get to the kindness in those outlets uhm which is interesting to realize and ehm not just sitting with the suffering but kind of finding a more productive way of not just coping with it but being able to help as well”. Working through the resistance may have contributed to a fuller awareness of others and connection (“it was also interesting to encompass everybody and not just those who are overtly suffering but also reaching those who I would not normally feel deserve love or kindness. There was a resistance here however pushing through that felt empowering”).

It is possible that thinking about others and fostering a sense of connection or community was powerful because it reconnected participants to a shared humanity, the opposite of othering. One participant stated this directly, indicating that the practice had a humanizing effect (“forcing yourself to do that is quite a good idea uhm cause it humanizes people like you or the ideas or concepts that you don’t want to think about which is good”). Again, the repetition seemed important in this process as one participant described how “eh at first I felt indifferent eh but after repeating the mantra eh I felt closer to them making them a three dimensional person instead of a (?) character”, suggesting that by wishing lovingkindness repeatedly to someone this participant was able to see the other in a different, possibly more human way. These quotes help explain why one participant found the prompt “remember that everyone else suffers” so powerful; it connected them to a shared experience.

**Mentalizing As a Way to Connect.** It is possible that the programme cultivated a new way to be in relationships when it “makes you kind of go outside of your own life and think about other people maybe suffering more than you ... I think it just, I think it just maybe puts into context probably”. Another participant described it slightly differently by saying it was like giving “people the benefit of the doubt”. What both quotes share is that they describe a different way of relating to others that may have required a suspension of the participant’s own view in order to think about the other person differently, or as one participant put it, “being able to have some distance from feeling that allows you to think about others”.

Participants recognised differences between experiences, an important component of self-other differentiation and mentalizing, which helped them “be more understanding of why, why someone might behave a certain way”. In one example a participant suspended their perspective in order to try and understand the perspective of another, acknowledging that “they’re all like you know have their own like complex things going on inside their heads”:

So like I’ve come to realize like there’s no point in me trying to stand my ground. Like it just makes way more sense to like stop and be like ‘OK how are you feeling? Because like I didn’t understand’ (laughs).

It is also clear that “making people more aware of other’s emotions” had been a key part of the programme as well. A great example of the benefits of self-other differentiation of emotional experiences was captured by one participant who noted how the programme helped them become “more aware of like what like someone else’s behaviour and how it’s like maybe like triggered me or made me feel upset”, allowing them to “like if, if someone’s feeling angry to not let that rub off on me and just let them do their thing and accept that they’ve gotta get through that and offer support but also like not get that angry because they’re angry”. This example highlights not only that the programme helped facilitate a mentalizing stance but also how that happened.

The result of this mentalizing stance was captured by one participant who noticed that they were “more eh mindful of eh other people’s eh, eh, eh needs” and that this resulted in a different way of responding, such that the participant was able to distinguish their needs from the needs of another, allowing the other space to meet their needs of self expression: “eh you know when someone wants just to rant about something they’re upset about or if I can help them in other ways yeah”. This ability to create space for the needs of others was identified by a number of participants who noticed a shift towards kindness, selflessness and

compassion, including “smiling at a stranger in the street ...be kind and smile at people or like hold doors open more”.

However, thinking about others was also identified as a difficult experience (“like that's just like not always it's not always easy to like kind of put yourself in someone else's position”). For example some participants identified a tendency to respond egocentrically: “people are so kind of wrapped up in their own lives uhm and kind of put themselves first a lot”, “quite a lot of people that really struggle with that emotional intelligence of kind of understanding how someone's feeling” and “I think it's quite rare that you like find characters that are willing to kind of be very understanding of someone else or their needs or their personal life”. One participant noticed this personally, becoming aware of an egocentric position with an almost dawning realisation (“imagine all people they have their own stories uhm their own quests and tasks that (led?) to you but it's not, it's not all about me” and “people are also they have their own, they live in their own world and eh they're not just people living in my world”). Not only do these quotes highlight a developing awareness of and potential shift away from a more egocentric position that may have been facilitated during the programme, but also the potential protective role of egocentricity.

One participant's description of a challenging interpersonal situation shed light on how participants may have shifted away from egocentrism towards connection: “try and push out my sort of love and compassion to everybody that was surrounding me to make them bit less threatening... try and not be intimidated by others but be loving to them and it makes, it makes me feel a bit safer”. Other participants also made reference to the importance of being able to think about others in a different way in their ability to connect, for example through “disarming the situation... actively change my perception of people ehm it really helps me to be around them” and “be more outwardly giving as well as or instead of expecting something back”. One participant described this as being “actively compassionate”.

## Chapter 5: Data Integration

### 5.1 Overview

Creswell and Plano Clarke (2011) encourage MM studies to compare and contrast the data strands to see how and where the data agree, which is especially important for a QUANT + QUAL convergent design that prioritises each method equally. In order to create a dialogue between the two sets of data they were analysed separately in the previous chapter and will now be integrated by comparing and contrasting the quantitative and qualitative data for each research question, a summary of which can be found in Table 20 (Creswell & Plano Clark, 2011). The various levels of knowledge that were discovered in or by the data, reflecting the CR framework, were acknowledged by structuring the integration and discussion according to *what was recorded* (i.e., the statistics, interview quotes), *what was happening* (i.e., the researcher's summary and interpretation of the data) and *what was really happening* (i.e., what factors may have influenced interpretation, shedding light on what was real and what was constructed). The first of these levels of knowledge is discussed below and the final two will be discussed in the next chapter.

**Table 20**

#### *The QUANT + QUAL Integration of The Two Data Sets*

Hypothesis	Question	Quantitative Data	Qualitative Data
Hypothesis 1: Acceptability	Q1a: Does wellbeing increase between T1 and T2 and is this maintained between T2 and T3?	WEMWBS significantly improved for 76% of participants following the intervention, however remained in the medium range. Changes in the follow-up period were not significantly different from baseline, however the trend suggested that some improvements might have been maintained.	A number of subthemes were identified that described a range of benefits: Becoming "Conscious", "An Oasis To Come Back To", "New Ways to Nurture My Mind and Body" and "Think A Lot More About Other People".  The subtheme Benefits Of Repetition captured how continued practice can be essential to maintain benefits.
	Q1b: What are the effect sizes of the intervention?	Post intervention there were large effects for both wellbeing and connectedness and a medium effect for mentalizing uncertainty.	The theme "It Can Do A Lot" suggested that the intervention had a large effect for some participants.
	Q2a: Do participants find the intervention useful?	Both wellbeing and connectedness improved significantly post intervention. Trends suggested they began to decrease in the follow up period, such that connectedness decreased to below baseline while wellbeing maintained some improvements, however these were not significant.	83% of participants found the intervention predominantly helpful as captured in the theme "It Can Do A Lot".
	Q2b: What was difficult?	71.4% of participants did not complete the minimum required number of sessions and there was attrition in the completion of the questionnaires.	3 participants declined or did not respond to requests to participate in interviews.  The theme A Difficult Practice captured that the programme was difficult for a number of participants, while 3 subthemes ("Wasn't The Right Fit", "I Didn't Really Want To" and "I Can't Relax") described areas where participants experienced difficulty.
Hypothesis 2: Understanding LKM	Q3: Do the wellbeing, mentalising, connectedness and attachment measures and subscales correlate?	At baseline and follow up the correlations between wellbeing and connectedness were robust. The trend suggested that as wellbeing, mentalizing certainty and connectedness increased, the other measures decreased and vice versa.	N/A
	Q4: Is there a significant predictive relationship between the measures?	Connectedness contributed significantly to the prediction at T1 and connectedness and both mentalising subscales significantly predicted wellbeing T3.	(See Q6)
	Q5: Do participants make reference to attachment and mentalizing related factors?	The questionnaire of 68% of participants at baseline suggested the presence of insecure attachment styles. The average anxious attachment was 3.11 at baseline (range 1.00-5.61) and avoidant attachment was 2.36 (range 1.00-4.00). The average baseline mentalizing uncertainty score was .36 (range .00-1.00) while mentalizing certainty was 1.48 (range .17-2.83).	A number of themes identified attachment and mentalizing related factors. For example, the subthemes "I Didn't Really Want To" and "I Can't Relax" map onto avoidant and insecure attachment styles. Some of the benefits, especially in the subtheme "Think A Lot More About Other People" identified mentalizing related benefits.
	Q6: Do participants draw links between mentalizing and attachment related patterns and intervention impact?	Participants who were securely attached showed significantly higher wellbeing scores at baseline but this significance disappeared post-intervention and at follow-up. However, the data also suggested that 10 participants with insecure attachment styles, compared to 3 participants with secure attachment styles showed improvements in wellbeing post-intervention. Furthermore, although overall correlations were not significant the model suggested that only the insecure group showed a prediction where mentalizing subscales became statistically significant to the model with the addition of connectedness to the prediction of wellbeing post-intervention.	Although no specific pathways were identified in the data, a number of (sub)themes contributed to a better understanding of LKM and the roles of attachment and mentalizing, including "Difficult...But Necessary", "I Didn't Really Want To" and "I Can't Relax", A Difficult Practice, Benefits Of Repetition, It Became "Less Scary" and "Think A Lot More About Other People".

## 5.2 What Was Recorded

### 5.2.1 Increases in Wellbeing Over Time

In exploring the acceptability of the intervention a number of research questions were identified, one of which explored the “cognitive and emotional responses to the intervention” (Sekhon et al., 2017, p.4). Wellbeing was determined to be a good marker for this. The WEMWBS questionnaire indicated that scores significantly improved between baseline and post-intervention. Specifically 76% of participants showed increases on their WEMWBS scores directly after the intervention. While the data identified significant changes the data also indicate that wellbeing remained in the medium range (43-60), which is similar to previous research that found scores in the medium range (see Table 21).

The theme “It Can Do A Lot” captured the nuances of how the intervention benefitted participant wellbeing. For example, participants noted becoming more aware and engaged (Becoming “Conscious”), feeling a sense of safety and calm, (“An Oasis To Come Back To”), being able to prioritise needs better through behavioural and cognitive change (“New Ways To Nurture My Mind and Body”) and also described an improvement in their awareness of interpersonal experiences and a sense of connection (“Think A Lot More About Other People”). Both the quantitative and qualitative data strands established that the intervention contributed to wellbeing, with the qualitative data highlighting the diverse ways it did this. However the quantitative data also showed that wellbeing remained in the clinically medium wellbeing range, suggesting that changes may have occurred but that this did not significantly impact overall wellbeing.

**Table 21**

*Comparing Current Averages To Previous Studies*

	WEMWBS Mean (SD) Range	RFQ Mean (SD) Range	SCS-R Mean (SD) Range	ECR-R Mean (SD) Range
Current study		<i>RFQc</i>		<i>Avoidance</i>
T1	47.64 (10.26) 32-60	1.48 (.91) .17-2.83	88.91(20.35) 56-115	2.36 (1.14) 1.00-4.00
T2	52.91 (8.30) 38-70	1.59 (.79) .33-2.67	94.82 (17.71) 65-118	2.24 (.85) 1.28-3.50
T3	47.55 (7.82) 35-60	1.33 (.69) .17-2.33	86.27 (20.86) 59-116	2.51 (.91) 1.33-4.00
		<i>RFQu</i>		<i>Anxiety</i>
		.36 (.42) .00-1.00		3.11 (1.57) 1.00-5.61
		.23 (.24) .00-.67		2.48 (1.11) 1.06-4.39
		.26 (.22) .00-.67		2.80 (1.35) 1.50-6.06
Previous research	<sup>a</sup> 51.61 (8.71) N/A	<sup>b</sup> RFQc 0.47 (0.49) 2-0	<sup>c</sup> 89.94 (15.44) N/A 91.90(14.83) N/A 91 (13.83) N/A	<sup>e</sup> Avoidance 2.92 (1.19) N/A
		<i>RFQu</i> 1.28 (0.85) 3-0		<i>Anxiety</i> 3.56 (1.12) N/A

<sup>a</sup> Stewart-Brown et al., 2011; Tennant et al., 2007, <sup>b</sup> Badoud et al., 2015; Cucchi et al., 2018; Fonagy et al., 2016; Handeland et al., 2019, <sup>c</sup> Capanna et al., 2013; Cordier et al., 2017; Lee et al., 2001, <sup>d</sup> Fraley et al., 2000; Shiota et al., 2006; Sibley et al., 2005

Looking at the changes in wellbeing over time the trend in the quantitative data suggested that 73% of participants experienced decreases in their WEMWBS scores in the post intervention period, indicating that for a large portion of the participants wellbeing reduced and started to return to baseline in the 6-months after the intervention. However, one subtheme in particular (Benefits Of Repetition) captured the benefits of the practice over time, with some participants noting surprise that the effects had lasted over time, while others wished that the effects had lasted longer. Here the two data sets diverged slightly, with the qualitative data painting a more nuanced picture. While the quantitative data suggested that wellbeing decreased over time with some initial benefits potentially remaining, the qualitative data highlighted that repeated practice might have been a key component to longer-term benefits. As the attendance data showed, many participants did not attend the required number of sessions, which might help explain the trend in the quantitative data.

### **5.2.2 Effect Sizes**

Another indication of acceptability was the size of the effect of the intervention. The quantitative data showed a large effect on wellbeing directly after the intervention, which reduced somewhat in the follow up period but remained robust. A large effect was also found for connectedness post intervention that reduced but remained robust over time, while mentalizing uncertainty showed a medium effect post intervention only. The theme “It Can Do A Lot” also suggested that for some participants the effect was strong and contributed to a range of benefits as described in the qualitative data. Although not an exact comparison, the quantitative and qualitative data both suggested that the intervention had a meaningful effect on participants.

### **5.2.3 Usefulness**

Understanding the acceptability of an intervention would not be complete without the participants’ view on its usefulness. From the qualitative data it became evident from the theme “It Can Do A Lot” that it was an enjoyable and useful experience for a number of participants. Incorporated into this theme were the data from the survey, which showed that 10 out of 12 participants (83%) found the intervention predominantly helpful when asked to rate it on a scale of 0-10.

A number of subthemes shed light on potential reasons for why the intervention might have been useful. For example, “Think A Lot More About Other People” highlighted the prominent roles of connection and mentalizing. The quantitative data complemented this as the data

indicated that similarly to wellbeing, connectedness improved significantly post intervention. However, trends in the quantitative data also suggested that connectedness began to decrease once the intervention stopped and unlike wellbeing connectedness seemed to decrease to below baseline in the follow up period. The qualitative data may have shed light on this trend. For example the data identified that the practice was difficult (A Difficult Practice) and that some participants did not want to engage ("I Didn't Really Want To") or felt quite uncomfortable engaging ("I Can't Relax"). In this way the two data strands complement and enhance each other to capture a fuller picture, namely that usefulness might have decreased in the follow up period because participants were struggling to engage.

#### ***5.2.4 Difficulty of the Practice***

While the data suggested that participants found the intervention useful, there were also indications in both the quantitative as well as the qualitative data that participating in the intervention was challenging. For example, while the majority of participants who submitted the survey found it useful, 2 out of 12 rated their experience as predominantly unhelpful. The qualitative data noted that participants found the intervention challenging (A Difficult Practice). Not only did the qualitative analyses identify that there were certain practical aspects that contributed to this difficulty but also that there were other factors captured by the subthemes "Wasn't The Right Fit", "I Didn't Really Want To" and "I Can't Relax" that made it difficult to engage. The number of missed sessions found in the quantitative data as well as the attrition in the data collection, added to this developing picture of LKM being a challenging experience. For example, 71.4% of participants did not complete the minimum requirements regarding intervention attendance.

Furthermore, the attrition in the data collection highlighted that participant engagement reduced overall. Of the 29 participants who were sent the first round of questionnaires, 97% completed this first round of data collection, which dropped down to 62% for the second round of data collection post intervention and down to 48% after the 6-month follow up period for the final round of data collection. The interview data also experienced attrition. Three participants declined or did not respond to requests to participate in interviews, 70% of invited participants completed the first round of interviews and this reduced to 50% for the second round after the follow-up period. All participants were invited to complete the post intervention survey, regardless of their attendance level or data completion rate; 78% of participants invited to complete surveys started the survey with 52% actually completing it.



It is possible that those who did not find the programme useful did not complete the survey limiting the conclusions that can be drawn. While this type of attrition isn't unusual, one of the qualitative themes suggested some participants experienced resistance to the programme ("I Didn't Really Want To"), not only complementing the attrition in the quantitative data but also potentially shedding light on why this interventions might have been challenging.

### **5.2.5 Presence of Attachment and Mentalizing**

This study set out to better understand LKM, proposing a new potential mechanism involving wellbeing, connectedness, mentalizing and attachment. Both the quantitative and qualitative data contributed to the exploration of the proposed theory underpinning LKM.

**Attachment.** Starting with the qualitative data, a number of themes were identified that map onto attachment related patterns and activations. Avoidant attachment is characterised by relational distance and emotional disconnect in both children and adults (Wallin, 2007). In stressful situations these individuals will often withdraw physically and emotionally and resort to relying on themselves, having learned in childhood that caregivers are rejecting or unavailable (Wallin, 2007). These patterns were evident in the data and captured in the subtheme "I Didn't Really Want To" and "I Don't Really Care About These People", which suggested that some participants created distance not only between themselves and the programme but also between themselves and others.

In the psychodynamic tradition a common emotionally avoidant defence mechanism is known as intellectualising. This occurs when individuals focus on reason and logic to avoid painful emotions (Lemma, 2015). This might have occurred for one participant who described experiencing changes that were "very like uh mental i'd say like rather than physical". Dissociation, another common emotionally avoidant defence mechanism, was also evident in the theme "I Didn't Really Want To", including descriptions of the effect this had on the mind and body ("occasionally body almost goes not numb but you know when you're just sort of not really aware of your of your body, I suppose uhm when you're so focussed on your mind" and "might disappear inside my mind"). Dissociation can be a healthy functional response to allow the mind to have a break, for example through daydreaming, but sometimes it is a psychological necessity to preserve oneself in cases of traumatic stress (Jacobs, 2017). Since attachment styles are created as a result of interpersonal relating in early childhood it is not surprising that a relational activity such as LKM might trigger emotional avoidance.

Displacement may have been another defence mechanism used by some participants to avoid feelings that are threatening (Lemma, 2015). For example, the data suggested that participants were critical when their expectations were not met or when the programme felt challenging. It might have felt safer expressing criticism based on external factors like the programme, rather than wrestling with the complexities elicited by LKM (“oh my mind is wandering because I can't do this' and then sort of by the end of the last session I was probably thinking 'this is just this is might actually be this kind of practice and this program as opposed rather than me' (laughs)”). It is possible that for some participants, like the one just quoted, engaging with LKM elicited shame and to avoid this feeling they shifted the blame to the programme. Another example of potential displacement and avoidant attachment was described by a participant who preferred meditations focused on “clearing the mind” maybe because it was less emotionally confronting compared to LKMs relational focus.

Anxious or ambivalent attachment is usually characterised by difficulties self-regulating and associated worry and self-doubt (Levine & Heller, 2010; Wallin, 2007). In relationships individuals often experience separation anxiety (children) or fear of abandonment (adults) that can result in inadequate boundaries. Stressful situations can often result in individuals experiencing emotional dysregulation and heightened emotions, having experienced inconsistent support in early life that stymied the development of adequate emotional coping, leaving individuals often feeling uncontained and rudderless (Ainsworth, 1978). Similar experiences were described in the data most notably in the theme “I Can't Relax”. For example there was evidence of dysregulation when a participant described feeling they “might disappear inside my mind”.

Uncertainty and not knowing can often be sources of dysregulation for individuals with anxious attachment styles. This was evident indirectly during an interview with one participant who felt they would have been more open to the programme if they had known more about the programme. This attempt to create certainty is common for individuals with more anxious/ambivalent presentations, who also often seek “reassurance” or are “easily influenced” as two participant described it, both as a way to self-regulate and as a way to maintain closeness with others. This desire for closeness can cause some individuals to downplay their own feelings resulting in individuals not knowing how they feel which adds to the sense of dysregulation. This was also evident in the data to some degree with some participants not knowing how to answer questions.

Another way that individuals often cope with dysregulation is through worry because it offers individuals a sense of agency or control (Davey & Wells, 2006). However, worry triggers the stress response system and can often have negative emotional as well as physical consequences that enhance dysregulation rather than reduce it (Davey & Wells, 2006). This was evident in the data when participants worried about how well they were engaging with the meditation. Similarly, self-criticism can be seen as an attempt to create control over one's own functioning. For example, from a schema therapy perspective, developing high standards is an attempt to defend against other fears like not feeling worthy (Young et al., 2006). This tendency to be quite self-critical was evident in the data ("I'm sort of naturally quite a critical person, which like is, can be like a good thing and a bad thing").

The quantitative data add to this by identifying that the scores of the majority of participants, 68%, fell within one of the three insecure attachment categories at baseline (32% fearful, 18% dismissive and 18% anxious/preoccupied). Only 32% of participant scores fell within the secure range, adding to the qualitative data that insecure attachment patterns were present in this sample. While these percentages show the distributive attachment patterns as aligned with Bartholomew's attachment classifications, the average scores suggested that participants generally scored on the lower end of the attachment spectrum, though anxious attachment indicating a slightly higher average score compared to avoidant attachment, mirroring previous data (see Table 21).

**Mentalizing.** Participants spoke about changing perspectives and ways of relating to people that sounded like mentalizing and was captured in the subtheme "Think A Lot More About Other People", where a key part of the subtheme identified how mentalizing was a way to connect. This ability to think about others suggested that the programme may have facilitated the ability to suspend one's own view to create space for those of another, similar to Buber's I-It (i.e., objective, non-relational) to I-Thou (i.e., subjective, inherently relational) shift, which is a key part of mentalizing and allows for the development of intersubjectivity (Buber, 1937).

Although unrelated to mentalizing directly the data also found that participants were experiencing improvements in the ability to pause more generally, which will have undoubtedly affected their ability to inhibit their own view to create space for others. The subtheme Becoming "Conscious" captured developments including decentering which "is marked by a detached observer perspective" (Naragon-Gainey & DeMarree, 2016, p.935). Decentering is key for mental health and contributes to cognitive flexibility. Bernstein and

colleagues suggest that there are a number of factors that contribute to decentering including “meta-awareness, disidentification from internal experience, and reduced reactivity to thought content” (Bernstein et al., 2015, p.599). This last point shares similarities with defusion, a key technique in Acceptance and Commitment Therapy (ACT) that helps create space between yourself and your thoughts, which was captured by one participant who described how they had been able to unhook from thoughts to notice patterns rather than being stuck in the thought content. The ability to decentre or defuse is related to emotional reactivity, which is informed by our inhibitory abilities (i.e., the ability to inhibit impulses), regulated by the Prefrontal Cortex (PFC). Prior research has shown that meditation strengthens this area (e.g. increased blood flow and increase cortical thickness in the PFC) and that this has been associated with attentional control and improved performance (Deepeshwar et al, 2015; Kang et al, 2013). It is possible that attentional control, increased awareness and reduced emotional reactivity allowed strong emotions to feel less intense due to the inhibitory abilities that were being cultivated, enabling participants to engage more in decentering and defusion.

While the quantitative data did not show clear evidence of changes in mentalizing over time, it did complement the qualitative data showing evidence of genuine mentalizing with the mentalizing uncertainty averages remaining below the 1 cut-off at all three time points. However, the data also showed that the mentalizing certainty averages remained above the cut-off at all three time points, suggesting impaired mentalizing was evident throughout all three time points. Specifically, it showed indications of hypermentalizing or pseudomentalizing, suggesting participants may have been overly confident in their ability to think about their own as well as the minds of others and missed the humility that comes with genuine mentalizing (Fonagy et al., 2016; Handeland et al., 2019). This differs from previous research and will be discussed later in this chapter (see Table 21).

Hypermentalizing was also evident in the subtheme “It Wasn’t The Right Fit” where participants made assumptions about the programme and who could benefit from it. There were other indications of mentalizing deficits evident in the qualitative data. For example, there was evidence that participants struggled to think about others or that they did not wish wellbeing to others in the subthemes “I Don’t Really Care About These People”. This could be indicative of difficulties in the process of separation and individuation. Typically the ability to distinguish between self and others improves over time but it can be affected by attachment difficulties and result in mentalizing difficulties (Blum, 2004; Mahler, 1963). When

mentalizing ability is in deficit people struggle to distinguish self from other and typically function quite egocentrically.

### **5.2.6 Correlations**

In order to verify whether the study's theory has merit the relationships between all the constructs was investigated. Importantly, the quantitative data showed that not all the correlations were significant. There were two measures that correlated significantly with all the other measures at baseline, namely wellbeing and connectedness. As expected the mentalizing subscales were significantly negatively correlated with each other and the attachment subscales were significantly positively correlated with each other at baseline. It was surprising that there was only one significant correlation between the attachment and mentalizing subscales at baseline considering the clinically informed robust theory about the relationship between attachment and mentalizing where insecure attachment has been shown to contribute to deficits in mentalizing (Huang, et al., 2020). In this study only attachment avoidance and mentalizing certainty were negatively correlated, suggesting that higher mentalizing certainty (or hypermentalizing) was associated with lower avoidance at baseline.

An important finding was that the majority of measures no longer correlated post intervention but did in the follow up period. There were a number of inconsistencies especially post intervention adding to the evidence that post intervention associations may not have been robust. The follow up data however showed a number of significant associations, especially for connectedness, attachment avoidance and mentalizing uncertainty. Specifically, the data suggested that there was a positive relationship between connectedness, wellbeing and mentalizing certainty, suggesting that higher wellbeing scores were associated with connectedness and mentalizing certainty. A positive relationship was also found between mentalizing uncertainty and both attachment subscales, such that higher mentalizing uncertainty was associated with higher attachment avoidance and anxiety.

These data offer some initial support for the proposed theory suggesting that difficulties with mentalizing and insecure attachment shared a relationship. However, while the data show that wellbeing and connectedness also shared a strong relationship, which contributes to the theory, the addition of hypermentalizing to this relationship is surprising as it has been associated with mental health difficulties like social anxiety and borderline personality disorder (BPD, more commonly referred to as emotionally unstable personality disorder or EUPD; Ballespie et al., 2019; Somma et al., 2019).

No qualitative themes were identified that specifically corresponded to this question.

### **5.2.7 Predictive Relationships**

In order to shed light on the underlying mechanisms of LKM this study explored how the measures related to each other and how they might have affected wellbeing to begin to shed light on potential causal relationships. The two research questions, one quantitative and one qualitative (Q4 and Q6), were combined to identify how the two data strands interacted.

First, the quantitative data showed that participants who were securely attached showed significantly higher wellbeing scores at baseline. While this significance disappeared after the intervention, the trend suggested that those participants with secure attachments continued to show higher wellbeing rates over time. The data also showed that 10 participants with insecure attachment styles compared to 3 participants with secure attachment showed improvements in wellbeing post intervention. It is likely that this data reflected the uneven distribution of attachment styles in the sample (i.e., that there were more participants with insecure attachment styles), rather than the possibility that participants with insecure attachment styles were more likely to benefit from the practice.

It was not within the scope of this study to explore causal mechanisms in the qualitative themes and subthemes, therefore how these themes relate is unclear. However a few tentative patterns were identified. For example, could it be that those participants with insecure attachment patterns may have struggled more with the programme but also benefitted more (i.e., showed most change) while securely attached individuals had higher wellbeing overall? The data captured subthemes that map onto insecure attachment styles (“I Didn’t Really Want To” and “I Can’t Relax”) and that these fell within the theme A Difficult Practice, suggesting that the insecure attachment styles were related to experiencing difficulties with the practice. Furthermore, the theme “Difficult...But Necessary” suggested that struggling with the intervention contributed to gains achieved from the programme and that repetition likely helped (Benefits Of Repetition). The subtheme It Became “Less Scary” highlighted the importance of a sense of security in being able to engage with the programme and in turn experience emotional benefits.

Taken together, this might suggest that participants with insecure attachment patterns struggled more with the practice but that struggling contributed to benefits including mentalizing and that various components of the practice including repeated practice and the

emotional experience of the practice helped engagement. Furthermore, the subtheme “Wasn’t The Right Fit” captured some participant beliefs that the programme was not for them, which could reflect the quantitative data that participants with secure attachment did not benefit as much. Further research is needed to explore these connections.

In order to explore the relationship between attachment and mentalizing regressions were used. Exploratory hierarchical regressions were run for the post-intervention data comparing attachment styles while looking at the predictive relationship between mentalizing, connectedness and wellbeing. Because the correlations at T2 were not significant and because the attachment groupings were uneven only very tentative conclusions can be drawn from this data. Only the insecurely attached group showed significant findings, such that only with the addition of connectedness to the prediction of wellbeing did the mentalizing subscales become statistically significant. This was not the case in the follow up period, where connectedness did not contribute significantly, suggesting that connectedness played an important role for insecurely attached individuals post-intervention but not in the follow-up period.

The qualitative data shed light on the contribution of connectedness and mentalizing in the subtheme “Think A Lot More About Other People” that identified the importance of connectedness and mentalizing in facilitating the ability to think about and connect with people. While the qualitative data suggested that mentalizing helped facilitate a sense of connectedness, the quantitative data suggested connectedness aided mentalizing. The regression analyses of the whole data set suggested that connectedness contributed significantly to the prediction at baseline while connectedness and both mentalizing subscales predicted wellbeing in the follow up period. This might suggest that mentalizing played a larger role once participants had experienced LKM even over time but that the role of connectedness was less clear. Further research will be needed to explore the direction of this potentially causal relationship and how connectedness is involved.

The following tentative conclusions may help explain the two data strands. It is possible that for some participants, potentially those with insecure attachments, connectedness was important prior to engaging with the programme and while it remained an important factor for mentalizing and wellbeing it may have become fragile after engaging with the programme, such that participants created distance between themselves and others but also between themselves and the programme as a way to psychologically protect themselves. While connectedness and mentalizing were important factors for wellbeing in the follow-up period,

for those with insecure attachments, connectedness seemed to wane in its ability to beneficially contribute over time.

The qualitative subtheme It Became “Less Scary” might be a critical factor here, suggesting that a sense of safety is crucial to be able to engage with something that has the ability to tap into personal vulnerabilities. While the experience during LKM created a sense of safety for some participants, others might not have experienced this as a result of their early experiences. For example, the experience of rejection often has roots in childhood, for example in parental neglect, abandonment or bullying, and can result in defensive strategies as a form of protection, which can include avoiding anything interpersonal because it is perceived as potentially threatening (Young et al., 2006). As such connectedness becomes threatening, rather than helpful.



## Chapter 6: Discussion

### 6.1 Overview

This study aimed to explore an LKM intervention, not only to see whether it would be acceptable to a sample of YA and contribute to their wellbeing, but also to better understand the meditation and its underlying mechanisms. This was explored using a mixed method (MM) feasibility and pilot study based on a critical realist (CR) framework. Using the CR framework to understand the data, this chapter will focus on the deeper layers of knowledge (*what was happening* and *what was really happening*), integrating the findings with available theory and research.

### 6.2 What Was Happening

The following summary of the data places the integrated MM data from the previous chapter into the context of the overarching hypotheses: acceptability and understanding LKM. In doing so this section moves “beyond the data and draw[s] on knowledge, theories, and evidence from outside the particular study and use[s] these to account for what we have observed” (Willig, 2012, p.13).

#### 6.2.1 Acceptability

Sekhon and colleagues use seven criteria to capture the acceptability of an intervention (2017). These include affective attitude, ethicality, burden, opportunity costs, intervention coherence, perceived effectiveness and self-efficacy. These criteria applied to the current study paint a nuanced picture of the potential acceptability of this study for this population.

Affective attitude encompasses how the participants felt about the intervention. Previous research has shown mixed evidence of affective experience, including that “LKM was not their choice of meditation” (Leppma & Young, 2016, p.303), that it was useful (Hofmann et al, 2015) and that 81% of participants found it acceptable (Kirby & Baldwin, 2017). This study found that 83% of participants found the intervention helpful, comparable to Kirby and Baldwin’s study, and that 76% showed improvements in wellbeing post-intervention. However, the study also showed that over time wellbeing seemed to drop to below baseline, suggesting that without continued practice wellbeing may actually decrease. Although these data were not significant and should be interpreted with caution, it may suggest that participants experienced an emotional come down. This is not uncommon and may be a result of the increased awareness cultivated during meditation (Halliwell, 2011; Su, 2015). This should be taken into account in future applications of LKM so that space can be created

for thinking about the potential difficulties of increased awareness, including connecting with suffering, which is a central facet of meditation (Kabat-Zinn, 2013).

Prior research into LKM with a sample of previously depressed patients suggests “that participants’ responses to this practice differ widely and that a considerable number of patients seem to find it difficult to engage” (Barnhofer et al, 2010, p.22). This experience matches the current results that found a mixed engagement with the programme; some participants engaged and became deeply affected by it, others really wanted to be affected by it but seemed to have engaged only superficially, while others denied being affected by it or were not affected by it. This matches patterns found by Galante and colleagues: “negative experiences with LKM can be divided into difficulties when practicing LKM, which were frequently mentioned, and not liking LKM, of which there are fewer entries” (Galante et al., 2016, p.337). This sheds light on the paradoxical nature of LKM, suggesting the presence of a kindness paradox where LKM can be both helpful and unhelpful (Barnhofer et al., 2010; Boellinghaus et al., 2013).

Perceived effectiveness is defined as the “extent to which the intervention is perceived as likely to achieve its purpose” (Sekhon et al., 2017, p.8). This study chose changes in wellbeing as a measure of purpose and both strands of the data suggested that wellbeing improved post intervention. The patterns over time in the quantitative wellbeing and connectedness data suggest that the intervention was achieving its purpose, however continued practice might be key since decreases in the follow-up period for both wellbeing and connectedness were evident. When asked what may have contributed to these changes some but not all participants identified the intervention as a key contributor, suggesting that some perceived it to be effective while others felt that any changes were due to other factors. While LKM may be perceived as less effective for some, the data also suggested that even if participants did not perceive LKM to be effective that they did notice changes relating to mental, emotional, physical and interpersonal experiences, and awareness and insight, some of which were eventually attributed to the programme. Why some but not others attributed effectiveness to the intervention is not entirely clear, though may be related to psychological factors including attachment patterns.

How well the intervention matched the participants’ value system also referred to as the ethicality of the intervention was a key exploration especially in the qualitative data, which showed that motivation to participate was key. The data suggested that if LKM did not resonate with the value system of participants then they may not have engaged or found it

useful. However it was also evident that if participants managed to continue to attend despite initial opposition then motivation could change over time as participants developed a fuller more nuanced experience of LKM. Furthermore, by not providing explicit information about the meditation before participation and by using invitational language rather than required instructions during LKM, participants were given the autonomy to engage in a way that matched their preference and value.

Attrition in both data completion and intervention participation are clear indicators of the level of burden criterion, which indicates the “perceived amount of effort that is required to participate in the intervention” (Sekhon et al, 2017, p.8). Previous research has shown that participants experienced a range of costs associated with the programme including time, lack of personal benefit, objection from family, lack of availability, and “concentration problems and difficulty in feeling loving-kindness” (Galante et al., 2016, p.337; Kirby & Baldwin, 2017). The current data also identified concentration difficulties, timing and lack of personal benefit, in addition to other barriers like location, the facilitator, the environment and prior assumptions about the programme. It is possible that some participants may have found the potential gains of practicing LKM, increased wellbeing and connectedness for example, did not outweigh the burdens. For example, contextual factors may have played a role in increasing the burden (e.g. location and timing), however it may also have been affected by more psychological factors such as attachment style that contributed to internal conflicts facilitated by LKM. Participants who did seem to benefit or did not experience LKM as challenging may have experienced fewer internal conflicts or had resources to navigate these conflicts. The main incentive of the study (i.e., the opportunity to participate in a free meditation programme) may have eased some of the potential burdens, leaving internally well-resourced participants feeling grateful rather than burdened, while for participants who did feel burdened this may have been insufficient. It is possible that with further incentives and a few practical amendments to reduce the costs, the level of burden may have been reduced, however for individuals with insecure attachments these adjustments may not have been sufficient to overcome the perceived burdens of the programme.

Intervention coherence is a key component of acceptability as it elucidates how well participants understand an intervention. The data highlighted that prior assumptions had a large effect on how participants felt about and engaged with the programme. This study’s intervention did not include a didactic component where the intervention’s coherence was explained to participants, creating space for participants to develop their own personal understanding of the meditation. However, both the current and previous research identified

that “the most common complaints were annoyance at the redundancy of the meditation verbiage” (Leppma & Young, 2016, p.303), suggesting that participants did not understand the role of repetition. A didactic component might be key for helping participants understand LKM better, including the role of the repetition. However, the study also found that some participants came to realise the benefits of repetition on their own by experiencing it, suggesting that intervention coherence was cultivated for some participants without a didactic component and that participating in the programme itself helped create changes in perception and improved engagement, reducing resistance.

Self-efficacy, defined as “the participant’s confidence that they can perform the behaviour(s) required to participate in the intervention” (Sekhon et al., 2017, p.8), shared some parallels with intervention coherence as some participants indicated feeling empowered to continue to practice after the intervention ended suggesting that self-efficacy developed during the programme. However, some participants found it hard to maintain engagement with LKM, describing the programme as difficult and confusing, suggesting mixed evidence of self-efficacy. Therefore, while intervention coherence and self-efficacy were not robust before participating, this could be improved through participation, though not for all participants.

To conclude this section on acceptability, the kindness paradox best sums up the question of acceptability; LKM was helpful, contributing to wellbeing in various ways, but it was also difficult. Importantly, confidence and ability to engage increased as participants gained experience, making it more acceptable over time. These findings share some similarity with Fredrickson’s broaden-and-build theory (2004); when participants found LKM beneficial or were able to push through the challenges to benefit from it, positive emotions enabled participants to engage and benefit in a range of ways. However, this study also expands on the broaden-and-build theory, showing that psychological factors might impact the ability to experience or cultivate positive emotions (Johnson et al., 2009; Robinson et al., 2019). Therefore, this study positions the complex interplay of emotions, both negative and positive, more centrally in participants’ experience and in our understanding of LKM.

### **6.2.2 Understanding LKM**

Alongside identifying a kindness paradox this study also identified what might have contributed to this paradox, adding to our understanding of LKM. However the quantitative data especially need to be interpreted with caution due to the presence of non-significant data, small data sets and uneven group sizes. Therefore all conclusions are made tentatively and will need to be explored further. A summary of the data in Figure 10 shows

that connectedness, attachment and mentalizing were certainly evident in the data, however how they interacted, how they were impacted by the practice and how they contributed to wellbeing was less clear.

## Figure 10

### *Summary of Results Exploring Potential LKM Mechanisms*

- Evidence of attachment patterns in the data, especially insecure attachment. Generally attachment scores were on the low end.
  - Evidence of mentalizing and hypermentalizing (i.e., lack of humility and over-interpreting mental states).
  - Baseline correlations robust for:
    - Wellbeing and other measures
    - Connectedness and other measures
    - Attachment subscales
    - Mentalizing subscales
    - Hypermentalizing and insecure avoidant attachment
  - Post-intervention correlations not robust
  - Follow-up correlations robust for:
    - Hypomentalizing and insecure attachment (both avoidant and anxious)
    - ↑wellbeing, ↑connectedness and hypermentalizing
  - Securely attached participants showed significantly higher wellbeing scores at baseline (some indications this continued into follow-up).
  - Uncertainty about whether insecurely attached participants showed improvements in wellbeing.
  - Connectedness data unclear. Some possibilities include:
    - Participants engaged in both attempts to disconnect or resist and felt more connected
    - Mentalizing → connectedness
    - Insecurely attached group
- Post-intervention  
mentalizing + connectedness → wellbeing
- Follow-up  
mentalizing → wellbeing

**Attachment.** Attachment scores were relatively low on both scales suggesting that attachment related patterns were not severe. There were some differences between the scales, with anxious attachment showing slightly higher scores compared to avoidant attachment. This may suggest that the availability and responsiveness of close others was more relevant for this sample than the sense of distrust and disconnect (Mikulincer & Shaver, 2005). Comparing this study's data to previous research it is evident that while the attachment scales showed similar positive correlations, it is evident from the average scores that this study showed consistently less attachment difficulty compared to prior research (Fraley, 2012). This might reflect the non-clinical nature of the sample.

Not only do attachment patterns show how individuals engage with others in general but they also predict how someone may respond in a stressful situation; those with more anxiety prone attachment styles are more likely to rely on others for support, doubt their own abilities to cope, engage in unhelpful worry, and experience intense emotions, also referred to as "hyperactivating strategies", while those with more avoidant prone attachment styles are more likely to rely on themselves, avoid the stressors or suppress feelings, also referred to as

“deactivating strategies” (Mikulincer & Shaver, 2005, p.151). The lower attachment scores suggest that in general participants experienced a “constructive and effective affect-regulation strategies” (Mikulincer & Shaver, 2012, p.11) that aided participants in navigating a stress-inducing task (i.e., practicing LKM).

Gilbert’s research and theory around compassion has identified three affective regulatory systems, namely the threat, drive and soothing systems (Gilbert, 2009). The current research contributes to the idea that these systems may be activated during certain interventions and that attachment might play a role in which system gets activated (Boellinghaus et al., 2013). For example, the data indicated that securely attached participants showed higher wellbeing scores and that this was possibly maintained over time. These participants might have been more likely to be engaging the soothing, affiliative system that is engaged when the hormone oxytocin aids a sense of connection and reduces the need for psychological protection (Boellinghaus et al., 2013). This was captured in the qualitative data that found participants experienced calm, peace and relaxation. While the current data were not clear about the process for participants with insecure attachments, it is possible that for some participants it took more effort to engage this soothing system and that more often the threat system was activated because the intervention was more likely to provoke a stress response rather than an affiliative response (Boellinghaus et al., 2013; Mikulincer & Shaver, 2001).

Originally this study hoped to include physiological measure to capture these experiences, however this was dropped due to lack of resources and time. While this study retained some embodied explorations in the qualitative subthemes “New Ways to Nurture My Mind and Body” and “An Oasis To Come Back To”, there was not enough data to explore the theories noted above therefore further research, especially including neurobiological data such as heart rate variability (HRV), cortisol and oxytocin activation or brain imagery, are needed to test these theories (Grossman, 2010; Grossman & Van Dam, 2011).

**Mentalizing.** Much has already been written about meditation, mentalizing and how both contribute to wellbeing. Allen for example reflects on the overlap between meditation and mentalizing, identifying that they both involve developing awareness, “an accepting and non-judgmental attitude toward mental states” (Allen, 2013, p.154) and the distinction between reality and the experience of reality (e.g., decentering, meta-awareness and cognitive defusion). Many of these benefits were identified in the qualitative data and are likely to have contributed to the positive experiences participants had following engagement in the

intervention. For example, improved metacognition, attentional capacity and emotional regulation were all identified in the data and have been associated with wellbeing (Bibeau et al., 2016; Hofmann et al., 2011). It is therefore possible that practicing LKM contributed to the development of mentalizing both directly and indirectly through other abilities like defusion and awareness. More research is needed to explore this as the current data found no significant differences over time in mentalizing abilities. Only mentalizing uncertainty neared significance following engagement with the programme; the trend indicated that the scores remained unchanged or were decreasing, suggesting improved mentalizing offering some early indications that LKM might aid mentalizing.

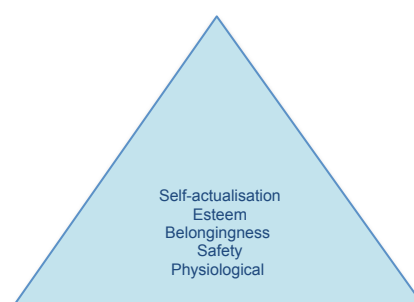
At baseline there was some evidence of hypermentalizing, which occurs when individuals lack humility or over-interpret mental states, which has consequences for mental health and wellbeing (Allen, 2013). In hindsight it is possible that the qualitative data also contained evidence of specific mentalizing deficits including psychic equivalence (i.e., when individuals equate their mental state with reality), pretend mode (i.e., when individuals disconnect their mental state from reality) and teleological modes (when individuals rely on behaviour rather than mental states; Allen, 2013). For example, the tendency to make assumptions about LKM or who may benefit from it may be evidence of psychic equivalence or even pretend mode, while lack of attendance might be evidence of the teleological mode. Again further research is needed to explore these patterns to better understand how LKM effects mentalizing but also how mentalizing might effect engagement with LKM. For example, could it be possible that individuals who typically hypermentalize are drawn to practice meditation or want to engage in an activity that is considered socially acceptable or trendy?

**Connectedness.** While there were indications that participants struggled with connecting, the data showed robust improvements after the intervention and into the follow-up period. In general connectedness was a present and consistent measure, showing a strong relationship to the other measures, suggesting that connectedness played an important role in participants' experience of LKM. This is similar to previous research by Hutcherson and colleagues (2008) who found that participants who engaged with an exercise that cultivated lovingkindness experienced greater connectedness. These data are not surprising considering the crucial role that connectedness plays in individual and community wellbeing, with benefits ranging from longevity to emotion regulation (Baumeister & Leary, 1995; Eisenberger & Cole, 2012; Holt-Lunstad et al., 2010).

The SCS-R specifically looks at the subjective experience of closeness to others and a sense of belongingness (Lee et al., 2001). While the raw scores for wellbeing dropped to below baseline in the follow-up period, connectedness not only saw a majority of participants experience benefits post-intervention but these benefits were retained by half of participants even six months after engaging with the intervention. Considering the robustness of the quantitative data it is possible to conclude that practicing LKM increased a sense of belonging and connection to self and others that may have resonated more strongly than individual benefits to wellbeing, potentially suggesting that LKM has a stronger impact on self and other oriented experiences compared to individual experiences. This data make sense within the context of available theory that highlights that belongingness is critical for healthy human functioning. For example, belongingness lies in the deficiency needs range of Maslow's hierarchy of needs and is necessary in order to achieve the other needs such as self-esteem further up the hierarchy (see Figure 11; Maslow, 1943). It is possible that LKM affects connectedness strongly because of the interpersonal focus of the meditation and that this is needed before individuals can focus on individual psychological needs including compassion for self and others. This might support Bankard's theory (2015) that the relationship between LKM and compassion is developmental. Further research will be needed to explore this, especially considering the high rates of isolation and loneliness in YA that might be more supported with an LKM intervention if this developmental theory has merit.

**Figure 11**

*Maslow's Hierarchy of Needs.*



**Relationship Between Attachment, Mentalizing and Connectedness.** The importance of connectedness was evident in the data, however the details of how it was important were less clear. For example, while mentalizing seemed to facilitate connectedness in the qualitative data, the quantitative data seemed to suggest that the addition of connectedness was what facilitated the relationship between mentalizing and wellbeing. Therefore,



connectedness could be a consequence of mentalizing, function alongside and predict mentalizing or both. Furthermore, the influence of attachment is also important since some of these patterns were only evident in individuals with insecure attachment. While this could indicate that mentalizing, connectedness and wellbeing have a relationship within the context of insecure attachment, it is not possible to conclude this since the measures did not significantly correlate and it is unclear whether these patterns also exist for individuals with secure attachment.

Aspy and Proeve note that cultivating connection may not actually improve the experience of connectedness due to “cognitive factors such as pessimistic beliefs or attitudes about people and nature” (2017, p.102-103). It is potentially here where attachment plays a critical role and where LKM can help; if insecure attachments prime individuals to have certain negative beliefs about others this can impact how connected they feel and how they engage with LKM, however if they can manage to engage and persist with LKM this might increase their sense of connection by challenging their beliefs, creating more flexibility and curiosity, qualities that are also associated with mentalizing. A potential explanation for these patterns may again lie in Maslow’s hierarchy of needs (Maslow, 1943). It is possible that individuals with insecure attachment may be at a disadvantage as they may not feel safe enough in their interpersonal relationships to progress towards self-esteem and that only when they feel connected or a sense of belonging that they can progress upward. Furthermore, if interpersonal relationships are experienced as threatening then the attempted cultivation of belongingness and connectedness may itself be threatening, causing individuals to disengage or engage superficially as a way to psychologically protect themselves (Kang et al., 2015). Individuals without attachment difficulties may already have a secure enough sense of safety and belonging and therefore may not require it to progress up Maslow’s hierarchy of needs, may be less threatened by it and experience different challenges like boredom rather than defensive avoidance.

These mechanisms have potential implications for how LKM is implemented. For example, participants with attachment difficulties or who struggle with a sense of belonging may benefit from a more cohesive, community based intervention to counteract the sense of threat, isolation or interpersonal disconnect that may be experienced. This is supported by research by Engert and colleagues (2017) who found that practicing meditation alone may have helped individuals feel calmer but it did not reduce the sense of threat and stress, measured using cortisol. However, cortisol did reduce when meditation, in this case compassion based meditation, was practiced with others, suggesting that the power of the

group may help down-regulate the nervous system and benefit those with attachment related activations (Engert et al., 2017). It was clear from the qualitative data in the current study that the LKM intervention used was not successful at creating a safe, supportive and cohesive group environment for everyone, which may explain why the data were not as robust as they could have been.

### **6.3 What Was Really Happening**

One of the key differences between CR and other approaches is that it allows “unobservable event objects ontological veracity (objects can be known by their effects)” (Lipscomb, 2011, p.7), including the researcher’s interpretation of the data. It is therefore critical to create space for the researcher’s mind and how she might have affected the study to better understand the data and draw appropriate conclusions.

#### **6.3.1 Reflexivity**

Reflexivity is defined as “a set of practices” (Kasket, 2012, p.8) that inform how we reflect on and contextualise the information we consume. We are inherently subjective creatures but reflexivity helps to foster awareness of subjectivity and intersubjective (Finlay, 2002).

Reflexivity is typically prioritised in qualitative studies, however has also been shown to be beneficial in MM research (Walker et al., 2013). I am now purposefully going to shift to using a first person narrative to reflect my agency as the primary author and researcher in creating this study’s knowledge, which adds valuable contributions to the strengths and limitations of this study.

**Positioning and Researcher’s Impact On The Data.** From a CR perspective researcher reflexivity and humility are critical because not everything can be known. However, CR also posits that knowledge can be partially understood within its context. I contribute to that context and in doing so help the data “go beyond the facts, to the transfactual processes behind them” (Price & Martin, 2018, p.90) when I reflect on the interactions between the data and myself. However, while CR creates space for multiple layers of knowledge it also stresses context based knowledge and that not everything can be known (Shannon-Baker, 2016). This facilitates a more nuanced and honest exploration of the subject matter. For example, I am aware of how my positioning has been influenced by contextual and personal factors including the isolating experience of writing such a project, compounded by the isolating effects of COVID lockdown, and my desire to have something to say, at times effecting how I perceived the study, the participants and the data. I also found it difficult to practice LKM myself since starting this project, likely my own avoidance arising in response

to the psychological threats I perceived as a result of my own perfectionistic tendencies. By creating space to consider these experiences I was able to connect back to the project and the participants with a sense of curiosity. At times this led change including the addition of the survey to try and understand the participants' experience better (Lillrank, 2014). In general I tried to cultivate equanimity, a key part of Buddhist teaching, to find a balanced equilibrium that was non-clinging and non-striving, creating space for "interpretations that represent possibilities rather than certainties" (Willig, 2012, p.14).

In their discussion about mindfulness and meditation in research and mental health interventions, Grossman and van Dam (2011) discuss the role of culture in reflexivity, identifying that many Western cultures prioritise intellectual knowledge over self-knowledge even in therapy professions. However, many therapies are making a shift, moving from focusing on content to process. For example, Ogden describes how the philosophical underpinnings of psychoanalysis have shifted from an epistemologically centred enterprise focused on "knowing and understanding" to an ontologically oriented enterprise focused on "being and becoming" (2019, p.662). This resonated with me because I too feel I have shifted from being focused on the positivist rights and wrongs to a more hazy in between space of both/and. My decision to change the study from a large-scale intervention study to a smaller feasibility study is an example of this. Furthermore, I have done my best to consider how I may have affected the data by reflecting on my decisions, for example by keeping a log of my decisions, and remaining tentative with my conclusions, however have also embraced that I am an active contributor to this data (Kasket, 2012).

**Validity and Reliability.** As suggested by Finlay, reflecting on the interaction between researcher and research can function as a reliability and validity check: "inter-subjective elements impact on data collection and analysis in an effort to enhance the trustworthiness, transparency and accountability of their research" (2002, p.211-212). While quantitative studies typically consider the researcher to be a potential confound, the role of the researcher in qualitative and MM studies depends on the methodological approach but is typically a more active and contributing factor (Finlay, 2002; Frost et al., 2010). Yardley's (2000) good practice characteristics for qualitative research (2000) for example stress the importance of the researcher in creating valid and reliable data. Importantly these characteristics overlap with the requirements for feasibility studies and have been integrated into the study. Although quantitative studies often rely on mostly statistical methods for checking validity and reliability, Ryan and Golden (2006) stress the importance of thinking reflexively to enhance the data.

**Ethics.** Reflexivity is also associated with ethical research and practice, since researchers make decisions that can compromise the ethical integrity of a study (Haverkamp, 2005; Willig, 2013). For example, there are risks to making assumptions about the truths of psychological processes that are often unconscious or difficult to ascertain (Lipscomb, 2011). By using a MM approach some of these risks were minimised as multiple sources shaped the analyses and conclusions that I made (Hansen, 2004). Although the exploratory nature of the feasibility focus helped cultivate a more humble and curious mindset there were some areas where power dynamics might have affected the data. Initially the study aimed to incorporate the participants' voice and to check the subjective interpretations of the primary researcher by sharing data with participants, however due to practical limitations (i.e., not having had time to properly analyse data) it was only possible to share initial thoughts based on the interviews already conducted. As a way to compensate for this participant views were elicited with a survey and incorporated into the final analyses to offer all participants the chance for their voice to be present. Future research might benefit from eliciting co-created data by adding a hermeneutic component to ensure participants' needs are not overshadowed by the research(er), thereby minimizing power imbalances (Andersen & Ivarsson, 2016; Ho et al., 2017). Alternatively, conducting research as part of a team may have added a level of objectivity that might not have been possible in solo research.

### **6.3.2 Strengths and Limitations**

In order to understand what really happened and to critically consider this study's contributions, a thorough exploration of the strengths and limitations of the study are necessary.

**Methodology.** Typically clinical interventions and randomised controlled trials are preferred over feasibility or pilot studies due to their robustness and ability to speak to questions around effectiveness. However, I have enjoyed the murky waters of the feasibility study and would argue that further explorations using this methodology are warranted (Eldridge et al., 2016). This is supported by the Medical Research Council (MRC) who indicate that "depending on the results, a series of studies may be required to progressively refine the design, before embarking on a full-scale evaluation" (2006, p.10).). For example, this study did not include a control condition, limiting the conclusions regarding causality and the influence of confounds like facilitators and location, which could be investigated using additional pilot studies (Arain et al., 2010; Becker et al., 2019; Eldridge et al., 2016). Eventually it would be useful to expand on the feasibility data to explore questions around effectiveness that are not suitable for feasibility and pilot studies (MRC, 2006; Proctor et al.,

2011). Future research would benefit from incorporating a checklist such as the template for intervention description and replication (TiDieR) to aid intervention replication (Hoffmann et al., 2014; Lancaster & Thabane, 2019).

While effectiveness explorations are not suitable for feasibility studies, exploring outcomes and process is. This study used Sekhon and colleagues definition of acceptability, however other ways of exploring outcome and process may have been more suitable and efficient (Bowen et al., 2009; Proctor et al., 2011). Orsmond and Cohn's (2015) framework for example may have facilitated a broader and more efficient exploration of the current LKM intervention by looking at process, resources needed and the management required to facilitate the intervention (Arain et al., 2010; Thabane et al., 2010; Tickle-Degnen, 2013).

MMs are perfectly suited to a counselling psychology doctoral course, offering space to consider the relationships between and amongst the data and creating space for both specific experience and generalizable trends. However, an important limitation is that most training programmes do not have the time or the resources to adequately equip students to conduct MM research (Smith, 2012). I experienced this personally, noticing my allegiance shifting between quantitative and qualitative approaches as I did not feel there was space or sufficient knowledge to explore the mixing of methods. Further attention should be paid to how MM and feasibility studies are integrated into doctoral training programmes as both have the potential to be valuable for counselling psychologists.

**Analysis.** I have likely "omitted, polished, ignored or not taken into account" (Lakew, 2017, p.225) some data, though reflexivity has increased awareness of where this might have happened and the MM has created space to compare and contrast the data and check my interpretation of them. However, there are a number of limitations regarding the analytic strategy that are important to note. As a result of the feasibility nature of the study significance testing was not suitable due to a lack of hypothesis testing, limiting the conclusions that can be drawn from the quantitative data (Arain et al., 2010). Furthermore, due to this study's small sample size and non-parametric data, analyses were required that effect the power and the conclusions that can be drawn as the data focus on the median, not the mean, though as Field (2013) highlights this is not necessarily a limitation as long as the test matches the distribution of the data, which it did in this case. It would be interesting to repeat this study with a larger sample size to explore the data using parametric analyses.

Alternative analytic strategies may have benefitted this study. For example, a hermeneutic approach may have created space to explore power dynamics, a grounded theory approach may have explored the underlying mechanisms of LKM better, an IPA approach may have done more justice to the participant's experience, and the Reliable Change Index (RCI) may have complemented the exploration of individual experience over time from a quantitative position. Furthermore, while TA is a flexible and useful approach it produced an overwhelming amount of data that impacted my time frame for submission. In hindsight, it may have been more beneficial to combine the surveys and the interviews into a more manageable source of data or to use a different analytic strategy, such as content analysis, to better match the context and reality of this study (i.e., a counselling psychology doctoral thesis). However, the flexibility of the statistical analyses allowed the data to speak and my assumptions to be checked and in doing so the analytic strategy strengthened the validity and reliability of the study.

**Measures.** This MM study used three different categories of measures, namely questionnaires, semi-structured interviews and surveys. By using different types of measures this study created space for a more nuanced exploration of the LKM with a more robust data set due to the integration of different types of measure. Previous research supports this idea with Becker and colleagues (2019) measuring intervention satisfaction with various measures including Likert scale questions, open-ended questions, focus group data including field notes and a transcription of the session. However a key question remains whether the measures themselves were robust and actually measured what they were intended to measure, which will be explored next.

**Questionnaires.** In their analysis of mindfulness research Grossman and van Dam ask, "such findings bring into question what psychologists are actually measuring with these questionnaires and whether there is adequate scientific support for their continued use" (2011, p. 231). This is a key question not only for mindfulness research but for other constructs as well. For example, while Fraley (2012) stresses the ECR-R should be used as a continuous measure, this research benefitted from exploring the data using categories and therefore may have benefitted from a different measure, however which measure might require further research due to the inconclusive debate around whether attachment measures should capture 2, 3 or 4 category models (Bartholomew & Horowitz, 1991; Fraley & Shaver, 2000; Fraley et al., 2000; Hazan & Shaver, 1987).

Aspy and Proeve (2017) raise an important consideration, namely that studies that use the same questionnaire for pre and post might create demand characteristics that could cause participants to respond a certain way or lose interest if they felt it was not relevant to their experience, which is a validity threat and may have affected the results. Other potential threats to validity like order effects as a result of the non-random order of the questionnaires could benefit from further exploration as well.

It is important to note the attrition in the data collection. Four questionnaires were used, some of which were quite lengthy and time consuming, which might have contributed to participants' disengagement. While reminders were sent to encourage participants to complete measures, other approaches might have been more beneficial, such as using shorter questionnaires and incorporating incentives (Bower et al., 2014; Brueton et al., 2014). However, by not including additional incentives this study captured the complexity of participating in the programme.

Research examining mindfulness and compassion interventions often include measures of these experiences to see whether the intervention actually captures what it purports to. In previous research LKM is often combined with other meditations and the measures that do exist combine LKM with other practices but no process specific measure of lovingkindness exists. Although participants described experiencing various states during and after practicing LKM there was no way in the current study to determine whether this was actually lovingkindness. It was not within the scope of this study to create a measurement, however creating one would not only help identify how accurately interventions are at producing a state of lovingkindness but it would also contribute to understanding LKM, its underlying mechanisms and how it can be distinguished from other constructs, allowing for more effective research. The current research offers some early indications of what might be useful to include in such a measure. Future research comparing measures of LKM to measures of other meditations like compassion and mindfulness, will aid this exploration. Another area where having an LKM measure would be useful is exploring changes over time and whether the intervention contributes to state and/or trait lovingkindness. This would help establish whether continued practice is needed to maintain the benefits of LKM and how individual differences, like attachment patterns, contribute to how and when state becomes trait (Kiken et al., 2015).

***Semi-Structured Interview and Survey.*** The survey was added later in response to attrition in attendance and data collection, creating space to better understand the

experience of participants. The interview questions were created based on the biopsychosocial lens that this study initially adopted that allowed for targeted exploration of holistic experience. In hindsight, it might have been better to combine the interviews and the surveys to make one short survey that was distributed to all individuals who signed informed consent forms for a number of reasons. First, this would have lessened the impact on participants; interviews took up significant time (i.e., 2x 45minutes) that the data suggested was in short supply for many participants. Second, the current interview sample was a random subsample that may not have accurately represented the range of experiences, impacting the reliability of the conclusions that were made (Gobo, 2004; Onwuegbuzie & Collins, 2007, 2017; Teddlie & Yu, 2007). Third, combining the biopsychosocial informed questions with broader questions may have created space for participant led explorations, while still exploring holistic experience in a targeted way.

**Sample.** While qualitative data often focus on fewer individuals in more depth, quantitative data's strength is in the ability to generalise. While feasibility and pilot studies typically have smaller sample sizes due to their exploratory nature, it does mean that results need to be interpreted with caution (Arain et al., 2010; Teddlie & Yu, 2007). Not only were group sizes unequal, but at baseline the cohorts differed, with the 4-week cohort at City being more ethnically diverse. Whether these differences were a result of the small group size or other potentially confounding factors is unknown and should be explored. In general the sample was not ethnically diverse, with most participants identifying as white British (48%) and female (86%). The majority of prior research has been conducted in the USA, with a smaller number of studies being conducted in Europe, Asia and Australia. Although its roots are in Asia, LKM has been described as a universal experience and should therefore be researched with diverse populations in order to reflect the different ways that different cultures may view and experience LKM (Brown et al., 2013; Grossman, 2010; Kabat-Zinn, 2003; Kristeller & Johnson, 2005; Neff & Pommier, 2013; Zeng, et al., 2015). If different cultures are viewing, defining, operationalizing and measuring constructs differently, this could have implications for our understanding of LKM.

While convenience samples are often used in psychological research, it is possible that this sampling approach may have contributed to a self-selection bias; those participants who wanted to meditate and benefit from meditation made contact (Zeng et al., 2015). The risks of this potential confound were reflected in the data. For example, the qualitative data identified that the desire to engage and the assumptions about expected benefits contributed to whether the experience was positive or not. Furthermore, the quantitative data showed



higher hypermentalising scores at baseline suggesting that participants may have been susceptible to social desirability that could manifest in inflation on some measures, though the lower WEMWBS scores at baseline, a measure known to be less susceptible to such bias, suggested that this may not have been the case for all measures (Tennant et al., 2007). Rather than becoming limitations these findings valuably contributed, elucidating challenges and potential underlying processes including the kindness paradox.

### **6.3.3 Clinical Implications**

The kindness paradox proposed by this study suggests that giving and receiving lovingkindness can be challenging but also beneficial for many participants. This study's MM approach brought nuance to the kindness paradox, showing both evidence of unique experiences and general trends that together shed light on what might be necessary for clinical practice and research.

**Population.** Grossman stresses that from a Buddhist perspective there is no distinction between normal and psychopathological, and that the aim of meditation is to expand awareness and consciousness (2010). While LKM has the potential to be beneficial for all, it is also possible that "LKM interventions are not suitable for everyone" (Zeng et al., 2015, p.13). For example a study by Barnhofer and colleagues found that low ruminative tendencies amongst depressed patients was associated with better engagement with LKM, suggesting that LKM may be more accessible for individuals who are not depressed or engage minimally in rumination (Barnhofer et al., 2010). There are also indications that "LKM is considered particularly helpful for people who have a strong tendency toward hostility or anger toward others or themselves" (Hofmann et al., 2015, p.2) and data from Kearney and colleagues suggest that individuals experiencing different facets of trauma may respond differently to LKM (Kearney et al., 2014). They note that LKM may be specifically useful for numbing or avoidance symptoms with research by Thompson and Waltz indicating that self-compassion relates to lower rates of avoidance but not re-experiencing or hyperarousal (Kearney et al., 2014; Thompson & Waltz, 2008).

The qualitative data of this study supports Kearney and colleagues' findings that avoidance can reduce through continued practice. A number of studies found that certain populations could experience sustained benefits from LKM with continued practice. Fear of self-compassion (FoS) research by Kirby and Laczko found that "over a longer intervention LKM might be successful at lowering fear of self-compassion, but over a short period, high levels of that fear may preclude participants' benefitting from it" (Kirby & Laczko, 2017, p.1897).

The current data support the benefits of practice over time; not only were there more significant correlations in the follow-up period compared to directly post-intervention but themes described the importance of engaging with LKM over a period of time. The current research also suggests that those with insecure attachment might benefit from a similar approach to the one described by Kirby and Laczko: “for small dosage uses of LKM it may be useful to screen out people with high fear of self-compassion, and engage them in an alternative exercise” (Kirby & Laczko, 2017, p.1897). This is not surprising considering the robust data connecting insecure attachment and FoS (Gilbert et al, 2011; Joeng et al, 2017; Mackintosh et al, 2017).

What does this all mean for the population of this study? As noted above, certain populations with specific experiences like avoidance or low rumination might benefit from an LKM type approach and individuals exhibiting avoidance and FoS may require longer term LKM practice to achieve benefits. Although at a vulnerable stage in development, young adults (YA) are also incredibly adaptive and the plasticity of the brain means that substantial life changes are possible (Dumontheil, 2015; Konrad et al., 2013). Therefore it is critical to adapt interventions to suit the specific needs of YA, taking into account who might require additional support, continued practice or a different intervention altogether. Further research should explore LKM in samples of YA who experience clinical and non-clinical symptomatology to better understand who might require what type of intervention or adjustments.

**Context and Culture.** Counselling psychologists are known to place context and culture central in their work. One of the key findings of this study included the role of prior assumptions and resistance to engage with LKM. These assumptions may be a result of clashes between Eastern and Western expectations when it comes to mental health and wellbeing (Nisbett & Miyamoto, 2005). Zeng and colleagues for example note that “different cultures have different understandings of “happiness” and Eastern cultures prefer more peaceful emotions” (Zeng et al., 2015, p.13), which is different from most Western countries where the focus is on active emotions like positive emotions and feeling better. Furthermore, in the West suffering is viewed as something that needs to be eradicated or cured, whereas Eastern philosophy often focuses on accepting suffering as a key part of life (Condon, 2019; Gawande, 2015; Sangharakshita, 2004; Tyson & Pongruengphant, 2007; Watts, 1951). The kindness paradox more accurately reflects this Eastern mindset by allowing space for a range of experiences including suffering. Remaining aware of the kindness paradox in any

application of LKM will be essential not only to tailor the approach to meet the needs of individuals but also to more accurately reflect the underlying Buddhist philosophy.

Grossman and van Dam stress how these types of practices are “simultaneously knowable and unknowable” (Batchelor, 1997 as cited in Grossman & van Dam, 2011) while Allen describes this with similar sentiment: “grappling with a somewhat paradoxical entangling of the familiar and the unfamiliar, the ordinary and the mysterious” (Allen, 2006, p.7). It is possible that the ambiguity of such practices might be difficult for some people to navigate, which could be remedied by incorporating an informative component that creates space for this. Zeng and colleagues (2015) suggest that a didactic component is critical in facilitating a better understanding of the Buddhist cultural context, suggesting that many studies focus on the mental aspects of LKM rather than the Buddhist philosophy but that it is exactly this philosophy that contains the messages that facilitate profound changes. For example, participants may benefit from being encouraged to consider the following:

The phrases are not used as a mantra that loses its meaning with repetition. Rather, the phrases are intended to keep one’s attentional focus on metta and the target of it. Therefore, the phrases are used mindfully each time, bringing one’s full awareness to the phrases, their meaning, and the feelings they bring up. (Hofmann et al, 2015, p.1)

Similarly to Zeng and colleagues (2015) this study advises all future explorations of LKM to pay particular attention to culture and to incorporate didactic components that allow space for Buddhist philosophy.

**Structure.** A key aim of this study was to explore LKM’s underlying processes, which required minimising potential confounds to maximise the likelihood that the processes captured reflected LKM processes rather than other factors. This influenced the creation of the intervention, which stripped the practice down to a brief grounding exercise followed by the different LKM phases depending on the session or the cohort. However, Condon stresses that meditation involves a range of practices that are used in practice fluidly together rather than in isolation and that “the attempt to isolate an active ingredient could fundamentally change the nature of the meditation practice” (Condon, 2019, p.17). This raises questions about the validity of the intervention. This will require further research to better understand whether LKM’s strength changes when combined with other meditation practices. Especially for clinical practice this may be a critical area for exploration since previous research has suggested that the difficulties of LKM were navigated using other

skills including mindfulness (Boellinghaus et al., 2013, p.275). Further research will be needed to continue to explore the potential benefits and risks of a process specific LKM intervention.

The structure of the programme changed in response to participant feedback. In doing so the programme became more similar to interventions used in previous research that typically spread the phases out over a number of sessions. Adapting the structure to meet the needs of the participants is not unusual. Hofmann and colleagues for example noted a need to change the order of the phases because participants struggled with the initial order (2015). While the participants in this study did not specifically note a difficulty with the order, they did note that certain phases were challenging. It would be interesting for future research to compare different orders of the phases and how this might affect participant engagement. A key limitation of the available research is that there is no uniform way to practice LKM. A standard LKM intervention would facilitate ease of comparison across studies.

The role of contextual factors is important to this process specific exploration of LKM. Participants identified factors like the environment that affected their experience. For example, the first two cohorts were based in two yoga studios where participants generally enjoyed the environment. The third cohort was based on a university campus, using different rooms due to scheduling issues. This was not an ideal environment, which was reflected in the participants' feedback. Previous research has identified the role of "a distracting environment" (Leppma & Young, 2016, p.303). Interestingly, there were baseline differences between the Streatham and Peckham cohorts, such that Streatham based participants had significantly better wellbeing scores compared to the Peckham based cohort, suggesting that even if both environments were conducive to practicing as described by participants, there may have been underlying contextual difference that contributed to one group having better wellbeing. Therefore, while meditation can be practiced anywhere under any conditions, it is likely that the location and environment were confounding factors and could benefit from further exploration.

This study aimed to explore intervention fidelity, to assess whether each session provided the process-specific dose of LKM and to assess the presence of confounds, however time constraints meant that this was dropped. Anecdotal evidence suggests the presence of at least some confounds (e.g. one untrained facilitator played recorded music in the background during a session) and future research could benefit from

**Group Dynamics.** Group interventions are often used because they are cost-effective, can be integrated into complementary therapies and can be experienced as less pathologising (Kearney et al., 2013). They often include a didactic component, creating a space for participants to develop a fuller understanding of the meditation and connect with one another in the shared experience, which Sorensen and colleagues' suggest enhances social bonding (2019). The current study included space for questions and the sharing of thoughts, however not many participants used this space. The lack of social bonding in this study might not have been a result of LKM itself, as the data suggested participants felt a greater sense of connection and belonging. Instead the lack of social interaction in the group may have had more to do with group dynamics and/or individual characteristics like attachment. The relative inexperience in the group (76% of participants had no prior meditation experience) may also have played a role. For example, novice practitioners might have benefitted from the containment that a more didactic component might have added, and as a result felt more comfortable sharing. It is also possible that the space created in the current research was not as effective at cultivating community because it was not actively encouraged to minimise the risk this might become a confound. Future research could benefit from exploring the benefits of a more didactic component and whether this differs depending on being a novice or experienced practitioner.

**Facilitation.** Participants commented on the facilitators in both the interviews and the surveys, noting both criticism and benefits. Initially this study aimed to have 3-4 dedicated and trained facilitators, however there were unanticipated changes including using more and sometimes untrained facilitators to ensure the sessions went ahead. Previous studies predominantly used facilitators who were trained mental health professionals, experienced meditators or both. While Tonelli and Wachholtz suggest that it is not difficult to train someone to facilitate such a programme, others stress that suitable facilitation is a critical part of the programme (Boellinghaus, et al., 2013; Tonelli & Wachholtz, 2014). Condon for example stresses that not only do facilitators have the potential to implicitly influence participants through what they model but they also have the potential to affect the group dynamics "as a result of the teacher's skills in group stewardship" (2019, p.17). Future applications of LKM should think carefully about the facilitator's prior training and experience with meditation.

**Side Effects.** Insight and expanding consciousness can be overwhelming, frightening and at times even damaging when not supported in a suitable way. Many news media have dedicated attention to the risks of practicing meditation (e.g. Love, 2018) noting post-

meditation experiences including depression, anxiety, suicidality and psychosis. Research exists, most notably by Britton, showing the potential detrimental side effects of practicing meditation, though this research focuses heavily on mindfulness (Britton, 2019; Lomas et al., 2015). Other research has indirectly identified the potential detriments of practicing LKM, for example when participants state a preference for other activities, which was evident in the current study as well (Leppma & Young, 2016). This raises important questions about whether a practice such as LKM should be used in scientific research and clinical practice.

The current data adds evidence to the potential challenges, especially the role of resistance, but it also gives some indication of where changes can be made to make the practice more sensitive to the needs of the practitioner. Meditation programmes and other clinical interventions should take the possible risks into account and anticipate the range of experiences that YA may have and offer tailored support. For example, it is possible that when the current process specific version of LKM was practiced by meditation novices this study's intervention risked overwhelming participants without offering them alternative coping strategies, resulting in resistance and disengagement (Kearney et al., 2014). Therefore, it might be safer for novice participants to engage with a version of LKM that integrates different meditations to help participants navigate the complexities of LKM.

Process specific LKM might be better suited to experienced meditators and/or potentially individuals with more secure attachment styles (Feliu-Soler, et al., 2017; Hofmann et al., 2011). This highlights the importance of a person-centred approach to meditation that integrates the individual's needs, views and experience of the practice (Lindahl et al., 2019). This is supported by other research that stresses the importance of having agency about when and how to practice LKM (Boellinghaus et al., 2013; Zeng et al., 2015). Future applications of LKM could benefit from providing individuals with better tools, like psychoeducation and grounding strategies, to help them make decisions about how to engage with LKM.

#### **6.3.4 Implications for Counselling Psychology**

A number of findings from this study are relevant for counselling psychology. Counselling psychologists are trained in different modalities, including third wave CBT approaches based in Buddhist origins such as Mindfulness based approaches, Compassion Focussed Therapy (CFT), Acceptance and Commitment Therapy (ACT) and Dialectical Behavioural Therapy (DBT). LKM may one day be a valuable addition to this collection of modalities, considering

the findings suggesting LKM may be useful for improving connectedness, wellbeing and interpersonal relating.

The humanistic ethos that is often a core part of many counselling psychology trainings stresses the importance of individual experience. This study created space to think about individual experience, which shed light on what makes LKM an acceptable experience but also what might contribute to LKM's challenges. The kindness paradox is a perfect example of this humanistic ethos as it reflects not only an experiential but also a holistic focus on positive as well as negative experiences. Contextual factors, including the physical space and the facilitator, but also internal psychological factors, such as attachment, proved to be a key to understanding LKM. The kindness paradox is not only relevant for clinical practice but research too as it showed the importance of the CR framework that valued different levels of knowledge and MM which allowed different methods to contribute to a richer exploration of LKM.

#### **6.4 Conclusions**

In 1995 Baumeister and Leary wrote a seminal piece on the role of our innate human motivations to belong and to connect with others. This current study is an extension of that exploration; 25 years later we continue to explore how and why this innate motivation works and what gets in the way. Considering the reports of increasing isolation, loneliness, mental health difficulties and suicide rates, especially amongst younger generations, it is critical that we better understand the inner psychological workings of interconnectedness and ways of aiding a movement towards belonging and connectedness when this proves to be difficult. This research contributed to these explorations and identified a number of areas that require further exploration.

Meditations have a long history of being used to aide wellbeing and mental health. Although not the original intention, societies, health services, organisations and individuals have gravitated towards them as a way to seek relief. This study explored what role one of these meditations, LKM, can play in benefitting wellbeing and mental health in YA, using a MM feasibility and pilot study within a CR framework. It identified and coined a new term to describe the varied experiences participants seemed to have following participation in LKM. This kindness paradox showed that although potentially challenging, by sticking with it and persisting, lovingkindness has the ability to help YA connect with themselves and others and improve their wellbeing, suggesting that love does have the potential and the power to conquer all.

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## **Part C: Case Study**

**Will you stay with me? A psychodynamic client study and process report**

Transcription word count: 1636

Word count: 6062 words

**REDACTED**