Addressing Adult Obesity: A Psychological Framework

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Submitted in fulfillment of the requirements of the degree of Professional Doctor in Health Psychology

School of Health Sciences, City, University of London

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THE FOLLOWING PARTS OF THIS THESIS HAVE BEEN REDACTED FOR COPYRIGHT REASONS:

ACKNOWLEDGEMENTS

I would like to acknowledge the contributions of the many people who have supported me throughout my doctorate journey.

Thank you to my academic supervisors, Dr Catherine Sykes and Dr Angeliki Bogosian, and special thanks to Dr Hayley McBain whose generosity, dedicated engagement and keen insight have been instrumental in shaping my development. I am sincerely grateful to each of them for their time, patience and support in guiding me through the process.

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Above all, I would like to acknowledge all of the many clients and study participants I have been privileged to interact with and learn from. They have taught me much over the years and have represented a powerful source of motivation whenever things got tough.

To my wife, Kymberly. Thank you for your support, especially through your uncanny ability to bring a dose of perspective and encouragement during the many times I have needed it. Your humour, wisdom, patience and generosity of spirit have been unfailing, and knowing you were behind me has made the process always seem possible. For the many sacrifices you have made in helping me to navigate this road, I will always be grateful.

DECLARATION

I, Khalil Kseib, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm this has been indicated.

LIST OF ABBREVIATIONS

ACT – Acceptance and Commitment Therapy

BMI – Body Mass Index

BP – Blood Pressure

CBT – Cognitive Behavioural Therapy

CFT – Compassion Focused Therapy

CPD – Continuous Professional Development

EER – Estimated Energy Requirements

ELP – Evolutionary Learning Processes

FACT - Functional Acceptance and Commitment Therapy

HAES – Health at Every Size intervention

HRQoL – Health Related Quality of Life

IPA – Interpretive Phenomenological Analysis

KPI – Key Performance Indicator

NCWR – National Control Weight Registry

NHS – National Health Service

NICE – National Institute of Clinical Excellence

NIH – National Institute of Health

PHE – Public Health England

RCT – Randomised Controlled Trial

SMART – Specific; Measurable; Attainable; Realistic; Time-bound

SBT – Standard Behavioural Therapy

SCT – Social Cognitive Theory

SOS – Swedish Obesity Study

WHO – World Health Organisation

WMP – Weight Management Practitioner

Qualification in Health Psychology (QHP) Stage 2

Portfolio of Competence

Generic Professional (1.0)

Supervisor: Dr Hayley McBain

Evidence submitted:

(i) A supplementary report (3,000 words) detailing how supervised practice has established the generic professional competence

(ii) A supervisor's evaluation report or a workplace contact report (included in Practice Log)

(iii) Attendance at core CPD workshops *(Appendix 1a, page 20)*

Word count: 2,969

1.1 Prologue

The following report reflects the period of my supervised practice within my role as a Trainee Health Psychologist at MoreLife, between 2013 and 2017. In describing my personal and professional development during this stage, and in outlining the paths taken to fulfil each of the core units of the generic professional competency, I have adopted a reflective narrative approach, as put forward by Asselin (2011).

In striving to achieve a level of professional competency and experience to practice effectively as a Health Psychologist, I have undertaken four years of clinical practice at MoreLife, an NHS-commissioned, psychologically-led weight management service based in Oxfordshire. This environment has generously provided an incubator for my professional development as a clinical practitioner, researcher and a peer amongst work colleagues. During this period, regular engagement with professional peers as part of a comprehensive multi-disciplinary team including a Clinical Psychologist, Dietician and GP, has provided a steady and reliable source of both challenge and support, which has contributed significantly to my growth as a practitioner (*1.2c*). Working in a psychologically-informed way within the context of adult obesity has been a deeply stimulating, challenging and ultimately rewarding experience. Through a culture of observation, supervision and a sound clinical governance framework, I have had autonomy in taking responsibility and 'failing forward' on a regular and consistent basis (*1.1b*). My primary role as a Trainee Health Psychologist has involved facilitating groups comprising of adults with obesity who have been referred by their GP. Typically, group size ranges from between 10-15 people with group cohorts incorporating 14 weekly, 1.5-hour sessions, and take place in community venues across Oxfordshire. To date, I have completed 59 group cohorts, totalling 1500+ hours. Through personal reflective practice, and with the support of regular workplace and academic supervision, interaction with clients on a day-to day basis has provided the foundation for building appropriate communication skills and presenting advice effectively based on evidence-based psychological concepts and theory (*1.2a, 1.2b*).

In developing my skills, competencies and confidence as Trainee Health Psychologist, I have sought to cultivate an approach underpinned by four main ethical principles - *respect*, *competence*, *responsibility* and *integrity* - as set out by the Code of Ethics and Conduct (British Psychological Society, 2006) (*1.1a*). Adopting a principle-led, rather than a technique-led approach in this way has enabled a collaborative stance by which standards and expectations have been co-created with clients in developing a culture which has shaped ongoing interaction.

Respect. Acknowledging the power balance inherent in the client-practitioner relationship, respect was embodied by fundamental principles of non-judgement, curiosity and acceptance. Seeking to meet clients 'where they were', fostered the therapeutic alliance within which relevant and effective support could be provided (*1.1a*). Through recognising the potential for teachable moments, co-created through perceptions, knowledge and emotions experienced within the client-practitioner exchange (Lawson & Flocke, 2009), I have focused, first and foremost, upon seeking to understand the experience of the client. From this stance, I have cultivated an awareness of culture, age, ethnicity, gender, religious beliefs and socioeconomic status of clients (*1.2a*). This approach has been supported by the adoption of various psychological principles including dimensions of the Health Belief Model, for example, which have helped to establish individual beliefs in the benefits of behaviour change, levels of self-efficacy, cues to action and perceived threat and barriers to change (Rosenstock, Strecher, & Becker, 1988). Maintaining self-respect through establishing and sustaining healthy personal and professional boundaries has also been central to managing capacity, and enabled me to balance my own emotional and psychological needs in the midst of competing priorities (*1.1b*). More specifically, this has been achieved in a variety of ways which have included: developing effective time management practices both within a clinical capacity and in balancing research and professional demands; maintaining physical energy levels through regular exercise; being open and honest about my own strengths and limitations, and utilising reflective practice and regular supervision and feedback from my workplace supervisor, academic supervisor and peers as strategies to cope with challenging or unforeseen circumstances.

Competence. Competence, demonstrated through provision of sound, evidence-based psychological advice and guidance, evolved through regular and persistent practice in facilitating twice-daily client group and 1:1 sessions over a four-year period. Motivated by an ongoing commitment to quality and continuous service improvement, verbal and written feedback was solicited from clients as an ongoing practice both on a formal basis (e.g. end of service questionnaires) and informal basis (e.g. asking at the end of each session, "*in what ways was today's session helpful? And in what ways do you feel it could it have been more helpful?*") Such questions specifically served two key functions: firstly, allowing myself to 'show up' with clients in session and engender an open and collaborative approach, and; secondly, through eliciting feedback identifying 'what works' and making necessary adjustments to course correct and support best practice (*1.2a, 1.2b, 1.2c*). To further enhance the client interaction, I also acknowledged the value of systemic factors in co-constructing teachable moments, such as setting and cultural standards and expectations during sessions, for example (Street, 2003). Working in this way served to enhance understanding in group dynamics and the role

of group identity, enabling me to construct an effective practice model based on client experience and need.

Responsibility. Learning to work autonomously by taking responsibility for research and professional components of the doctorate represented a critical aspect of my training journey. From a research standpoint, responsibility came in the seeking out of possible opportunities to fulfil each individual competency, independently undertaking the steps to achieve each competency alongside other personal and professional demands, and in the creation and meeting of self-imposed deadlines (*1.1b*). In meeting professional requirements, I've been responsible for ensuring that therapeutic work was undertaken in a clinically safe, ethical and effective manner, that delivery was evidence-based and supported the needs of clients, and through identifying and seeking out personal training and development needs to support continuous improvement. In relation to these activities I have maintained an updated log of all CPD events (Appendix 1a, page 20) and learning outcomes (*1.1a, 1.1c*). Amongst peers, I have been responsible for developing and mentoring others, supporting staff colleagues within the formal context of peer supervision, as well as contributing to curriculum development and facilitating internal training to share best practice, informed by knowledge as a Health Psychologist and a practitioner (*1.2d*).

Integrity. Commitment to integrity was represented through ongoing cultivation of self-awareness, identifying limitations and 'blindspots' by combining introspection with the active engagement of peers, work colleagues, workplace and academic supervisors (*1.1b*). Ongoing personal reflective practice took the form of logging experiences and learnings as a Trainee Health Psychologist. External support was received through periodic observation of client sessions and supervision by workplace and academic peers, informal discussion with colleagues, and the seeking out of mentors. Integrity was also reflected in developing the humility to accept shortcomings and learn from mistakes made as a Trainee, and exhibiting resourcefulness in seeking out advice from relevant peers. From a research standpoint, integrity was maintained through obtaining client consent wherever appropriate, abiding by the bounds of the City, University of London research ethics process, and maintaining professional standards in relation to client confidentiality, anonymity and data protection at all times (*1.1a*). These critical elements were amalgamated in undertaking the research thesis, which included collation, transcription and storage of audio accounts from 46 clients, underscoring the necessity of maintaining integrity in each of these domains. Integrity was further supported by keeping abreast of latest research and relevant updates in the fields of health psychology and psychology more broadly, participating in mandatory workplace governance training

(e.g. adult safeguarding and first aid training) and maintaining an ongoing commitment to personal development through regular attendance at workshops, trainings and conferences (*1.1c*).

To enhance my knowledge and skill base, I have attended various training on a frequent basis and this has helped to inform my practice. I have read books and journals widely and actively sought to cross-pollinate ideas from various divisions of psychology. Maintaining a keen sense of curiosity has led me to seek out and establish relationships with valued mentors from across the field of psychology and beyond (*1.1c*). I have conducted individual interviews with the founders of Acceptance and Commitment Therapy (ACT) and Compassion Focused Therapy (CFT) on behalf of *The Psychologist* magazine (Appendix A, C, D and E; pages 202, 204, 208 and 213, respectively). These and other similar experiences have provided a source of wisdom and support, and I look forward to continuing to cultivate such relationships within the psychology community in order to foster my ongoing personal and professional development on the winding road ahead.

The weight conversation is one that is ever-evolving and, at the same time, remains rooted in long-held truisms associated with 'moving more and eating less'. Whilst intuitive at its heart, my role as a Trainee Health Psychologist has been to develop a more nuanced perspective, and the responsibility of taking an enquiring and critical approach to the issue of weight management has been essential in this respect. A blog post which I wrote for the Health Psychology in Public Health Network (HPPHN) newsletter, '*Asking the 'why' in weight loss*' (September 2016) (Appendix B, page 203), was borne from this perspective and ultimately fuelled inspiration for my research thesis which explored the experiences of participants who had attended a psychologically-led weight management programme (*1.2b*). Communication skills developed as a practitioner further supported my capacities as a qualitative researcher, most specifically in facilitating nine focus groups and six 1:1 interviews (*1.2a*). At the same time, despite the inherent advantages provided by experience, fidelity of the research was also reliant upon my ability to remain independent and delineate my role as a practitioner from the research process. With this in mind, I sought to maintain impartiality by keeping personal reflective logs, discussing the ongoing research process and any arising issues within supervision, ensuring individuals with whom I had previously worked were not recruited for the study, and disclosing my role as a practitioner to participants in order to avoid potential conflicts of interest (*1.1b*).

In fulfilling requirements of the teaching and training competency, I engaged with healthcare professionals including doctors and nurses at Hammersmith Hospital and St. Mary's Hospital in

Imperial College Healthcare NHS Trust, London as part of a novel and innovative Public Health England (PHE) initiative. In undertaking the project remit to deliver group weight management to healthcare professionals, it became evident that associated factors such as work-related stress, time pressures, and wider systemic issues faced by participating staff would also need to be addressed. This necessitated working collaboratively with both participating staff and the management team (*1.2e*). Acknowledging the significant role of environment in supporting health behaviours over time and the physically and emotionally demanding organisational context staff were working within, sessions were underpinned by an empathic, solution-focused approach which integrated value-based principles to promote internal agency (*1.2a*). Correspondingly, in addition to attendance and weight loss outcomes, verbal and written feedback was provided to the management team on an ongoing basis outlining progress, concerns raised by staff participants, and recommendations made based on their experiences. Working within this context provided valuable insight into some of the competing micro and macro-level priorities that exist within hierarchical organisations such as the NHS, and the importance of engaging stakeholders bilaterally (*1.2e*). Further, the experience exemplified the necessary responsibilities as a Health Psychologist to bring professionalism and sensitivity in communicating objective, critical, and balanced insights with expertise and integrity, outlining systemic as well as individual issues where appropriate.

The consultancy competency provided a further opportunity to work with healthcare professionals, in this instance with maternity staff at the John Radcliffe Hospital in Oxford. In partnership with senior stakeholders from the host unit, a needs-assessment was undertaken to set out objectives and expectations for a pilot intervention which would incorporate both a weight management component and a training session on communicating weight management guidance to patients, represented in this instance by pregnant mothers. The multi-faceted nature of the project necessitated collaboration and drew upon various key competencies, which included: the negotiation of capacity and outcome expectations for the proposed consultation (as a 'sub-contract' within an existing commissioning contract); design and delivery of a weight management intervention, and; the development and delivery of a training session on effective communication, incorporating latest guidance and best practice in weight management for pregnant mothers (e.g. NICE guidelines). To inform development of the training session, I conducted an initial focus group with midwives involved in the project to identify their challenges and needs. The focus group served as an opportunity to listen to the experiences of the client in their interactions with patients, and subsequently design a session based on actual, rather than perceived needs (*1.2a*). Feedback protocols post intervention also helped to identify limitations of the project and potential future

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directions. The positive benefits of this client-led approach in building rapport and shaping a constructive ongoing relationship based on mutual respect has since encouraged me to 'lean in' with the motive of seeking deeper understanding within client interactions.

Delivering a behaviour change programme further challenged me to identify relevant needs in first designing and then delivering a targeted intervention for men as a specific subgroup. As the first competency requirement I undertook, I surveyed previous literature on men's health interventions and male group dynamics. Whilst informative, a heavy reliance on previous examples led to an element of rigidity in design and potential stereotyping. Several previous studies, for instance, drew upon 'male dominated' activities such as football and drinking as levers for behaviour change, however clearly not all men identify with 'lad' or 'bloke' tags in this way. Whilst predictive factors may be helpful, therefore, the experience taught me to be cognisant of the 'error of the average', and to take into account the role of both context and the individual in tailoring interventions. In evaluating feedback from clients, it was evident that relying upon preconceived notions of 'what might be' versus 'what is' may have been, at best, unhelpful and, at worst, alienating. In this respect, therefore, taking a reflexive stance in through demonstrating self-awareness and obtaining the views of clients on a regular basis has enabled me to assess purpose, utility and likely impact more accurately (*1.2b, 1.2c*).

My understanding of the role of context and the individual was extended in working with diverse socioeconomic groups. Higher rates of obesity, for instance, have been widely correlated with low socioeconomic status (McLaren, 2007), and my varied experiences in delivering interventions across wide-ranging demographics have underscored the importance of sensitivity and flexibility in addressing the needs of such groups. Again, in this respect, meeting clients 'where they were' at each level has proved to be an effective approach. This was reflected literally, in ensuring accessibility of venues, and through adapting language styles to focus on communication of key practical messages. Cultural factors, including age, ethnicity, religious beliefs and socioeconomic status raised specific and often sensitive issues among clients which, when identified, were either addressed on an individual basis or signposted to more appropriate sources of support (*1.2a*).

As a Trainee I have also had, on two separate occasions, the opportunity to provide expertise in supporting the set up and delivery of a residential child weight management programme in Qatar, working with local partners on behalf of MoreLife and Imperial College, London. In taking on an operational role managing a small team comprised of UK and Qatari staff, cultural and language barriers presented a fundamental challenge to overcome. From this standpoint, building rapport,

facilitating effective communication and working collaboratively and with respect formed the foundation for successful partnership and programme outcomes on both occasions (*1.2d*). Being immersed in an unfamiliar context - culturally, geographically, and in relation to working operationally rather than clinically - enabled me to step firmly outside of my comfort zone in extending my interpersonal and managerial capacities.

A fundamental aspect of my journey as a Trainee has lay in developing an identity as a health psychologist. The process has presented paradoxical challenges in having, reasonably, to articulate to multi-disciplinary peers and organisational members a well-defined *raison d'etre*, whilst at the same time maintaining enough dexterity and courage to test assumptions in response to the often-posed question *'what is a health psychologist?'* I have found meaning in cultivating the capacity to be curious - to notice and to listen. In my professional experiences I have discovered that there is much to learn from clients - the lived experience, the personal narrative – and that it is they who often have the answers if we are curious and courageous enough to engage them openly (*1.2c*). As still a relatively nascent breed of practitioner and academic, health psychologists are well positioned to take such a stance and, in so doing, identify the distinguishing features of adherence to adaptive behaviours which promote psychological, physical and emotional health. Bearing this in mind, I have consistently sought greater understanding of the origins, commonalities, facilitators and barriers to health from a psychological perspective. To aid in this search, I have relinquished a singular commitment to health psychology models and assumed a beginner's mind in borrowing from different spheres – neuroscience, positive psychology, evolutionary psychology and social psychology, among others - all of which have offered unique and valuable insights into closing the gap between intention and behaviour. I look forward to continuing on this path in developing my capacities and possibilities as a health psychologist.

On a personal level, the past four years have brought about much change, challenge and opportunities for growth. Experiencing the loss of my Dad to pancreatic cancer, getting engaged and then married, and moving home, have all represented major life transitions. These experiences have undoubtedly further shaped me as an individual and permeated my professional practice as an autonomous and responsible trainee health psychologist.

1.2 References

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1.3 Appendices

Appendix 1a: Continuous Professional Development Log: 2013-2017

Workshops Attendance/CPD - 2013-14

October 2013: Kent, Sussex and Surrey Health Psychology Network Conference – *Health Psychology in Public Health, University of Surrey*

October 2013: Professional Skills – Ethics – Dr Parmpreet Kalsi - *City, University of London*

March 2014: Qualitative Research Methods in Health Psychology – Dr Angeliki Bogosian - City, University of London

March 2014: 1-day workshop on how to develop a successful clinical practice – British Psychological Society, Tabernacle St., London

May 2014: CBT skills for Health Psychology – Dr Renata Pires-Yfantouda - *City, University of London*

Workshops Attendance/CPD - 2014-15

April 2015: Motivational Interviewing – Dr Vanessa Bogle – *City, University of London*

July 2015: ACT Made Simple/ACT Bootcamp Advanced Workshop – *4-day workshop with Russ Harris, Cecil Sharp House, London*

Workshops Attendance/CPD - 2015-16

November 2015: Focused Acceptance and Commitment Therapy Workshop (ACT as a Brief Intervention) – *2-day workshop with Kirk Strosahl, Cecil Sharp House, London*

October-December 2015: Advanced Coaching Diploma, Dept. for Continuing Education, University of Oxford – *weekly evening course (10 sessions)*

March 2016: Putting DBT into your Practice, Oxford Cognitive Therapy Centre – *1-day workshop with Fiona Kennedy*

June 2016: Weight Management: Research in Practice - *Health Psychology in Public Health Network, Hertfordshire*

June 2016: Adult Safeguarding E-learning course – *Social care institute for Excellence*

August 2016: First Aid Course – *Half-day event at Rose Hill, Oxford*

Workshops Attendance/CPD - 2016-17

September 2016: ACT Clinical Skills Building Intensive Workshop – *2-day workshop with Steven C. Hayes, London*

September – November 2016: Mindfulness-Based Cognitive Therapy (MBCT) course – *8 sessions, Oxford Mindfulness Centre*

January 2017: How can Psychology make healthcare safer? - *1-day workshop, DHP, British Psychological Society*

February 2017: ACT with Self Care – *2-day workshop with Kelly Wilson, London*

March 2017: Compassionate approach to the forms and functions of self-criticism – *1-day workshop with Professor Paul Gilbert, Oxford*

April – June 2017: Introduction to Systemic Family and Couple Therapy - *10 sessions, Dept. for Continuing Education, University of Oxford*

June 2017: ACT in the Workplace – *1-day event at City, University of London*

June 2017: ACT for Depression and Anxiety disorders - *2-day workshop with Russ Harris, London*

Qualification in Health Psychology (QHP) Stage 2

Portfolio of Competence

Behaviour Change Intervention (2.0)

Supervisor: Dr Hayley McBain

Evidence submitted:

(i) A case study describing the process of conducting health psychology behaviour change interventions (3000 words excluding tables, figures and appendices) with supporting evidence in appendices

(ii) A supervisor's evaluation report or a workplace contact report (included in Practice Log)

Word Count: 2,997

Setting: Florence Park Community Centre, Cowley, Oxford

Intervention: Men's behaviour change health intervention

Dose: 14 weekly sessions, 90 minutes

Participants: 10-15 men, BMI>40

Date: July – September 2014

2.1 Prologue

The following report outlines the experience of designing and developing a behaviour change intervention as part of my role at MoreLife, a specialist NHS-commissioned weight management service (BMI>40). Since commencing the role within the service in 2013, I had noted low numbers of men being referred into the service through the single point of access route (i.e. via GP), as well as a typically high female to male participation ratio in groups. I discussed with my workplace supervisor the opportunity to understand and address this issue by designing, delivering and evaluating a pilot men's weight management intervention based on evidence of 'what works' in the context of engagement and weight loss among this subgroup. Whilst historically, rates of accessing health services among men has been generally poor (Dunstan, 2012), there was scope to make evidence-based improvements to the design and delivery of the service which would increase accessibility and engagement among men.

Designing and implementing baseline needs assessment for identified group (2.1a)

Having cultivated my experience in delivering similar interventions and in meeting the competencies outlined by the Health Behaviour Change Framework (Dixon & Johnston, 2010), I felt confident in undertaking the baseline assessment and delivering the intervention.

In undertaking the proposed behaviour change project, I sought to explore sociological understandings of men's health by carrying out a search of the literature using electronic search databases and relevant men's health forums (Hemingway, Taylor & Young, 2004). Findings from the search indicated faster rising rates of obesity among men and a greater risk among men than women of obesity-related ill health, such as type 2 diabetes (Barr, 2006). At the same time, men were less likely than women to perceive themselves as being overweight or to attempt to lose weight (Lemon, Rosal, Zapka, Borg & Andersen, 2009). Reflecting these trends, it was noted that only

10% of referrals into NHS weight management programmes are represented by males (Robertson, Archibald, Avenell et al., 2014).

The search findings also identified gender preferences in the context of weight management initiatives which boosted engagement and improved weight reduction outcomes among men. Notably, weight management interventions which were informed by considerations of gender sensitivities, both in their design and delivery, were found to be more engaging for men (Morgan, Callister, Collins et al., 2013; Hunt, Wyke, Gray et al., 2014; Gray, Hunt, Mutrie et al., 2013). Despite a growing evidence base, however, research addressing male-only weight management interventions remains limited (Young, Morgan, Plotnikoff, Callister & Collins, 2012). In sum, new and innovative approaches to engaging men in weight loss efforts were identified as being both helpful and much needed.

In considering potential avenues to assess baseline behaviour, I explored relevant theories and models. My initial literature search revealed useful health-related theoretical perspectives relating to the identified problem and, in this light, I adopted an *issue* approach and continued to search the literature for constructs which could be mapped onto the health behaviours in question (Kok & Schaalma, 2004).

Various theoretical perspectives relating to gender preferences were identified from the initial literature search and factored into psychological considerations for the proposed men's intervention. Specifically, it was noted that:

- Evidence for a preference of men-only groups is varied – though some men indicate a preference or indifference toward men only-groups, others actively prefer mixed groups (Sabinsky, Toft, Raben & Holm, 2007)
- Evidence for gender differences in learning style preferences is mixed and unclear. According to Kolb's Learning Style Inventory, however, men may prefer abstract concepts over concrete experiences, and may be more grade-oriented and more competitive than women (Kolb, 1985)
- Men are both more likely to join and achieve better results within interventions which offer advice on, or provision of, exercise activity and performance (Burke, Warziski, Starrett et al., 2005)

- Less emphasis on a restrictive diet or regimen is preferable among men. This may be factored alongside the wider acknowledgement that changing diet is more effective than physical activity in achieving weight reduction (Clark, 2015)

- Flexible and individualised group-based programmes that are fact-based, use simple language and provide individual feedback, are preferred (Sabinsky *et al.*, 2007)

- Use of 'masculinised' formats (e.g. gadgets such as pedometers) are more engaging for men (Lewis, Thomas, Blood *et al.*, 2011)

- Active use of humour or 'banter' (ironic or often self-deprecatory jokes) to address serious or sensitive topics such as weight gain is effective but, importantly, not in such a way that trivialises health concerns or is insensitive (Archibald, Douglas, Hoddinott *et al.*, 2015)

- Fostering group identity, inspiring camaraderie and providing peer support are important to men and key to achieving long-term management goals (Leishman, Dalziel & Valley, 2012)

- Drawing associations between the intervention programme and local sporting organisations to which men identify strongly (e.g. football supporters) can be a powerful engagement tool, though it is group-specific and may not attract all men (e.g. Hunt *et al.*, 2014)

In reflecting upon findings from the literature, I chose to incorporate session attendance (i.e. number of sessions attended), weight loss outcomes (measured by changes in BMI) and client satisfaction (measured by open-item questionnaire, and anecdotally asking clients to describe 'feelings' and 'expectations') within the baseline assessment of behaviour. The measures were agreed by the workplace supervisor and operational lead for the service.

All clients provided written informed consent to take part in the intervention during a pre-programme onboarding process. Prior to commencing the group, clients were asked to describe their feelings about attending a male-specific weight loss group, as well as their general expectations. Descriptors used by group participants are listed in Table Table 2.12.1, below:

Table 2.1. Participant feelings and expectations descriptors (pre-programme)

Feelings	Expectations
Nervous	Breaking the cycle
Interested	Lose weight
Embarrassed	Increase mobility
Relieved	Be healthier - Improve life expectancy
Surprised (at a male-only group)	Improve sex drive
Anticipation	Core changes – mental and emotional
Curiosity/Suspicion	Improve quality of life and wellbeing
Waste of time	Be more driven
Commitment	Failure
Hopeful	Fearfulness
Open mind	Group/male dynamic

Based on assessment outcomes, identifying cognitive, emotional and behavioural processes the intervention will seek to address (2.1b)

The intervention drew on a number of theoretical models of behaviour change. In line with self-determination theory (Deci & Ryan, 2010), people's inherent need for autonomy, competence and relatedness was considered. Given a typically resistant approach toward participation in weight management, a key focus of the intervention design was in cultivating autonomous motivation to engage in positive health behaviours.

According to social cognitive theory (SCT), behaviour change is influenced by environmental factors, personal factors and attributes of the behaviour itself (Bandura, 1986). The interplay between these attributes – known as *reciprocal determinism* – suggests that each factor can influence, or is influenced by, the others. Changing individual cognitions to improve adherence to optional behaviours was considered a critical feature of the proposed intervention; if men were to change their dietary and physical activity behaviours it would be important for them to value the outcome of the behaviour (i.e. weight loss), believe they were capable of achieving the desired outcome (self-efficacy), and recognise that the outcome would result from successfully completing the behaviour.

The intervention was also designed to be more culturally sensitive for men. Resnicow and colleagues identified 'surface' and 'deep' structure components as being important in the formation of a cultural tailoring framework (Resnicow, Baranowski, Ahluwalia & Braithwaite, 1999). In line with this model, surface components of the intervention sought to match observable characteristics of the male group, which included consideration of venue, images and appropriate language. Deep structure components addressed some of the unique values and barriers to men in changing behaviours, and was reflected within session topics.

A variety of behaviour change techniques associated with successful behavioural weight management, including self-monitoring and goal setting, were derived from the Behaviour Change Taxonomy and incorporated within the intervention (Abraham & Michie, 2008; Michie, Richardson, Johnston *et al*., 2013). Cognitive behavioural tools, which are aimed at changing cognitions or altering behaviours, have been widely applied to various health conditions, including weight management (Cooper, Fairburn & Hawker, 2003). Indeed, research suggests that behavioural weight management interventions which incorporate cognitive behavioural tools may be more effective than those that don't (Berkel, Poston, Reeves & Foreyt, 2005). In line with this evidence the proposed intervention included sessions aimed at guiding participants through the 'cognitive cycle' – explaining how thoughts, emotions and behaviours are interconnected. Understanding maladaptive cognitions and identifying triggers to dysfunctional behaviours such as overeating in response to negative emotions, for example, enabled participants to share, problem solve and plan ideas on how they might overcome these behaviour patterns in future.

Providing feedback on assessment outcomes ensuring intervention matches client needs (2.1c)

I presented feedback from my review of the literature and proposed intervention to my workplace supervisor (clinical psychologist) and operational lead for the service. Feedback from these discussions served to validate and refine proposals for the intervention.

Designing, planning and implementing intervention (2.1d)

The proposed intervention was underpinned by the MoreLife programme curriculum, a group-based weight management intervention comprising of dietary, activity and behaviour change components. The curriculum supports adults with a BMI>40 (BMI>35 with comorbidities) and is a year-long programme involving 14 weekly sessions, followed by six, once-monthly sessions. Aligned to national guidance for weight management (NICE, 2014), the programme draws upon behaviour change principles and incorporates self-monitoring, implementation intentions and goal setting.

Incorporating evidence-based gender preferences for men, as outlined above, specific adaptations were made to the current MoreLife curriculum, as follows:

- Recognising that men are often not responsible for making food choices in the home greater emphasis was placed during the early stages of the programme on taking control of eating habits and implementing approaches which strongly encouraged autonomous decision making – e.g. submitting daily food diaries

- Prior studies have indicated that men can hold misperceptions about the dietary behaviours required to lose weight (Wardle, Parmenter & Waller, 2000). Therefore, meal portion size was further contextualised for men as an effective strategy to change behaviour

- Session themes addressed 'masculinised' topics and activities common to men. Previous research has identified a tendency for men to drink more alcohol than women (Dawson & Archer, 1992) and so the relationship between alcohol and weight gain was explored

- Use of proven behaviour change techniques derived from the Behaviour Change Taxonomy for diet and activity interventions (Michie *et al*., 2009), including self-monitoring of diet and activity, specific goal setting, implementation intentions and feedback on performance and behaviours

- Increasing advice on, and provision of, exercise activity where possible – an important factor for men in the context of long term, sustainable weight management (Morgan, Lubans, Collins, Warren & Callister, 2011). This included building links with local sporting organisations, such as London Welsh RFC

- More formalised opportunities for social support were established to foster camaraderie, accountability, long-term consistency and maintenance in achieving mutual goals

- Programmes placing less emphasis on dietary restraint whilst incorporating behavioural strategies such as calorie counting, have been shown to be more effective (Sabinsky *et al*., 2007). Therefore, in challenging the established relationship between traditional masculinities and autonomous decision-making emphasis was placed on personal choices and responsibility, encouraging men to make sustainable lifestyle changes (Gough & Conner, 2006)

A session overview for the pilot intervention is provided in Appendix 2a (page 38). Weight was measured and recorded at the beginning of each weekly session using Tanita™ scales, and all participants were provided with a programme manual which includes key session content and tools for tracking behaviours.

Recruitment

Participants were recruited to the intervention by referral through GP and were assessed for their suitability during a pre-assessment triage in which readiness level and criteria were established. Individuals were invited to attend either a mixed group, or a male-specific group. In total, eight people were recruited for the men-only intervention, which represented the participant cohort for this pilot. Given that pilot studies are not generally powered to reveal clinically meaningful

differences in outcomes, the sample size was eight individuals was deemed to be appropriate (Arain, Campbell, Cooper & Lancaster, 2010). Accessibility was a key factor in the recruitment process and many individuals reported being unable to attend due to geographical or timing constraints.

Venue

The location and venue was selected based on ease of access, privacy and an unimposing feel. In this way, an environment and culture in which participants felt open to sharing thoughts, emotions and experiences in a confidential and respectful space was actively sought out, and considered to be important to the overall outcomes of the pilot.

Group Experience

Goal setting may be an effective strategy in supporting weight loss efforts (Abraham & Michie, 2008; Shilts, Horowitz & Townsend, 2004) and was a key component within the pilot intervention. In setting weekly goals participants were encouraged to form and develop implementation intentions through outlining their specific plans for achieving each goal (i.e. when, where and how the specific behaviour would be carried out (Gollwitzer, 1999)). Behavioural tools put forward included '*If…then'* strategies, which help to specify the conditions under which a behaviour is carried out. Supporting this approach, participants were asked to track dietary intake and activity-related behaviours each week in order to identify specific adaptive and maladaptive behaviour patterns which were impacting their desired goals.

Participants were encouraged to target several key dietary behaviours believed to be problem areas for men (e.g. increasing vegetable intake and reducing consumption of energy-dense, nutrient poor foods) (Lock, Pomerleau, Causer, Altmann & McKee, 2005), and invited to share experiences and to review progress on SMART goals set weekly (Michie, Rumsey, Fussell *et al*., 2008). In line with self-regulation (control) theory (Carve and Shier, 1982) actual behaviours were compared with the individual's intended goal or standard. Participants were supported in identifying and acknowledging possible environmental and social influences, cues and triggers, thus journeying into their own personal 'narrative'. A process of problem solving, then action planning (e.g. through further goal setting) enabled participants to monitor and review their progress towards a goal, and act to reduce discrepancies between their intended goals and actual behaviours in instances where the planned goal had not been achieved. This intervention component was revisited weekly and generated increased self-efficacy, autonomy, self-esteem and sustainability through working toward the achievement of meaningful, value-based goals.

'Masculinised' dietary information, which addressed psychological, physiological and sociological gender-specific differences (e.g. the tendency for men's nutritional approach to be 'no-nonsense' - uncomplicated and pleasure oriented) (e.g. Lewis *et al.*, 2011), was shared and discussed. Core dietary messages incorporated specific information on key topics of relevance, such as alcohol (e.g. pint of Guinness calorie equivalents). Anecdotes, statistics and research, visual images (e.g. YouTube clips) and examples of goals were used (e.g. awareness and avoidance of specific environmental triggers or 'danger zones' - a kebab shop on a Friday night, for instance). A similar approach was also emphasised in the context of activity behaviour tracking and goal setting, ensuring sensitivity (e.g. supporting realistic and achievable goals) and relevance.

Evaluating and communicating intervention outcomes (2.1e)

Weight loss (BMI, measured weekly) and attendance were recorded for all participants. Eighty-eight percent of participants were classified as 'completers', attending nine or more sessions in total. All 'completers' lost weight and two participants achieved ≥10% weight loss over the 14-week period.
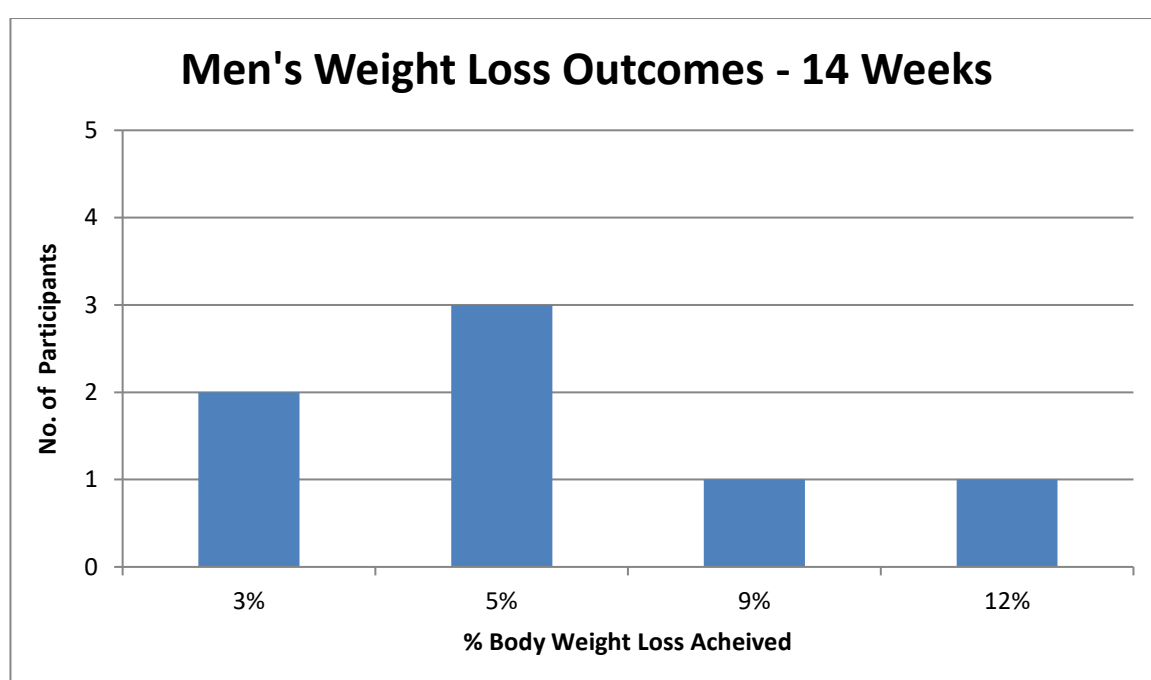
Figure 1. 'Completer' Weight Loss Outcomes – 14 weeks

Participants were invited to complete formal intervention feedback questionnaires at Session 14. Questionnaires were completed and received from four participants (sample feedback questionnaire included in Appendix 2b, page 39). Overall content and delivery of the intervention was scored by all participants as either *'Excellent'* or '*Very Good'*. The food diary was reported as being the most

useful and frequently used tool (mostly in the form of the MyFitnessPal™ app). Corresponding with previous studies (e.g. Sabinsky *et al*., 2007), the findings underscored the effectiveness of incorporating structure around diet through a 'planned strategy' approach which, in turn, may positively promote self-regulation and self-efficacy.

A common thread relating to identity also arose from the feedback, with participants reporting feeling "openness" to sharing thoughts and emotions willingly within the group which was attributed to being among other men. This further aligns with the notion of 'camaraderie' as being central to effective engagement within a male-only group context (Gray *et al*., 2013). This dimension may have been enhanced by the appropriateness of venue, which was also positively rated in the feedback. Other benefits reported by participants also included feeling "healthier" and "more confident".

Structure was also a key mediator, and participants reported wanting further dietetic input. Participants also suggested that the handbook could be "shorter" and that the course more broadly "seems a little too intense". Both these messages - calling for simplicity and structure – are reflective of findings in previous research (e.g. Sabinsky *et al*., 2007).

Anecdotally, rapport among group members was evident early on and solidified over progressive sessions, with participants comfortable and convivial in each other's presence. Participants appeared to gel well as a collaborative unit during the 14-week period, both in sharing goals and challenges and in generating problem solving ideas. The 'glue' of male identity encouraged an atmosphere of openness and transparency from the outset. The content seemed to be engaging for the group and facilitated in-depth discussion. Step counting took on a competitive dimension with individuals playfully goading one another over who had achieved more steps each week. This observation was interesting given the prediction that competition may be a positive driver within a male-focused setting (Courtenay, 2002).

On reflection, whilst men may not be enthusiastic about the idea of attending structured face-to-face weight loss programmes (Sherwood, Morton, Jeffery *et al*., 1998), once attending the group, male identity appears to be conducive to effective engagement, behaviour change and, ultimately, weight loss.

I shared the findings both of my experiences of delivering the intervention, and outcomes from the evaluation, with my workplace supervisor and operational lead for the service. I also had the

opportunity to present my experiences and outcomes more widely across other MoreLife programme contracts, and the project received positive feedback internally as a model of good practice.

2.2 Summary

Findings from the current pilot lend support to a growing evidence base for weight management interventions which consider a gender dimension within their design and delivery. Though delineating the impact of specific mediators influencing weight loss behaviours - theoretical constructs, mode of delivery and the nature of the group, for instance – was beyond the scope of this pilot, primary outcomes from the current intervention (i.e. weight loss and attendance), in addition to anecdotal and formal client feedback, lend support to the validity of incorporating themes which better reflect the needs of men within a weight management context. Whilst no single approach to weight management is likely to appeal to all men, findings presented here may offer insight into future design and development of male-focused weight management interventions, as well as male-oriented health interventions more widely.

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2.4 Appendices

Appendix 2a: Session Overview

Session	Strategy (task/practice in the week)
1. Getting started	Establishing the culture and outlining expectations. Fostering group identity. Introduction and food diary
2. Food strategies for weight loss	Food strategy options to support long term goals and Estimated Energy Requirements (EER) Approach: *Knowledge sharing/problem solving*
3. Keeping a food diary	Introduction to food diary. Barriers and opportunities. Approach: *Task focused/goal setting*
4. Managing monitoring	Introduction to monitoring activity behaviours Pedometer/Fitbit/MyFitnessPal. Setting activity goals Approach: *Task focused/goal setting/competition-based*
5. Approaching activity	YouTube clip (23 and a half hours) Visit from London Welsh representative Approach: *Visual/interactive/competition based*
6. What's in my drink?	Demonstration of sugar content in drinks. Discussion: Alcohol Approach: *Knowledge sharing/visual/interactive*
7. Nutritional labels	How to read nutritional labels to support long term goals Approach: *Knowledge sharing/visual/interactive*
8. Accessing support	Long term barriers and opportunities. Ideas for seeking and maintaining ongoing peer support. Teambuilding and 'buddy up' Approach: *Camaraderie/interactive/problem solving*
9. Weight influencers	Who and what influences? Relationships, work, home and social. Open forum discussion, invite spouses and partners Approach: *Interactive/problem solving*
10. Food strategies for weight loss: Review	Review of food strategies and discussing experiences Approach: *Problem solving/goal setting*
11. On being a man – masculinity and weight expectations	Role of masculinity in relationship to the weight journey. Handling peer pressure, expectations from self and others Approach: *Camaraderie/peer support/problem solving*
12. Emotions and food	'Labelling' emotions. Identifying the impact of thoughts and feelings on food and activity behaviours Approach: *Knowledge sharing/interactive*
13. Building resources	Implementing the 'Toolkit' – Challenges and Opportunities
14. Building resources (cont.)	Reflections and next steps

Appendix 2b: Sample Feedback Questionnaire

Name: _____

Feedback

We would be grateful for your feedback on your weight loss journey and experience of MoreLife. Please be honest; your feedback will help us when we review our service. All responses are kept confidentially.

Please tick the answer that applies

1. How would you rate the overall content of the first part of the course (i.e. the weekly sessions)?

   a. Excellent ☐
   b. Very Good ☐
   c. Good ☐
   d. Fair ☐
   e. Poor ☐

2. How would you rate the overall delivery of the first part of the course (i.e. the weekly sessions)?

   a. Excellent ☐
   b. Very Good ☐
   c. Good ☐
   d. Fair ☐
   e. Poor ☐

3. Which of the following tools do you use most regularly?

   a. Problem solving ☐
   b. Goal setting ☐
   c. Food diary ☐
   d. Weight monitoring ☐
   e. Mindfulness ☐

4. What ideas / tools have been the most useful from throughout the course?

5. What do you think is the optimum group size?

6. What impact did being part of a male only group have, if any?

7. What changes, if any, would you make to the men's MoreLife programme?

8. What difference, if any, has any weight loss you have had made to your everyday life?

9. Any other comments or feedback?

Thank you for taking the time to complete this questionnaire

Qualification in Health Psychology (QHP) Stage 2

Portfolio of Competence

<u>Research - Thesis (3.0)</u>

Supervisor: Dr Hayley McBain

Evidence submitted:

(i)   A research thesis (approximately 30,000 words excluding tables, figures and appendices)

(ii)   A systematic review (6,000 words)

(iii)   A supplementary 10,000 words in submitted manuscripts for peer-review journals separate from the main thesis

Word Count: 32,928

3.1 Abstract

Background: Obesity remains a significant public health priority despite ongoing efforts, with few notable advances made in recent years. Individual behaviour change mechanisms, or 'active ingredients', can only partially explain and predict successful weight loss. In addition, maintenance following a period of initial weight loss is rare and relies upon unique combinations of interrelated and overlapping factors. Whilst the outcome of weight loss and its maintenance has been the focus of much research, the individual weight loss journey as a process has been largely overlooked. By looking through the lens of the lived experience, there lies an opportunity to sequence the temporal and contextual dimensions of the weight journey and gain greater insight into this process.

Aims: The current study aimed to examine the temporal and contextual dynamics of the weight loss journey by listening to the personal narratives of people who had attended a psychologically-led weight loss intervention, in this way revealing the barriers and enablers to their initial weight loss and maintenance over time.

Methods: The study adopted a qualitative approach, using a combination of focus groups and 1-1 interviews with participants who had previously attended a psychologically-based weight management intervention.

Results: The study recruited a total of 46 individuals who took part in either a focus group (n=40) or 1-1 interview (n=6). A conceptual linear framework was devised which highlighted three core superordinate themes; *Alienation*, *Connectedness* and *The Future (Abandonment or Autonomy)*, representing distinct stages of the weight journey. In exploring the conditions under which individuals migrate across stages results indicated a role for the development of a self-identity which assumes personal responsibility for meeting psychological and emotional needs beyond the physical realm of weight loss. Although most personal narratives reflected a sense of abandonment post intervention and associated weight relapse, a small minority engendered a sense of autonomy and a focus upon psychological and emotional capacities as a metric for their weight loss journey.

Conclusions: Bringing into view temporal and contextual dimensions involved in managing weight over time, the findings have implications for addressing the issue of weight as a symptom rather than as a cause and centralise the importance of meeting psychological and emotional needs over and above a unilateral focus on weight loss.

3.2 Introduction

3.2.1. Prevalence

It is currently estimated that 1.9 billion adults worldwide are either overweight or obese, with the prevalence of obesity having doubled between 1980 and 2014 (WHO, 2015). Recent findings suggest that 27% of adults in England are obese and a further 36% are either overweight or obese (Health Survey for England, 2015). Rates of overweight and obesity have grown slightly in the last decade, from 61.8% in 2004, to 62.9% in 2015 (Baker, 2017). By 2030 it is predicted that in the UK the prevalence of obesity will rise from 26% to 41-48% in men, and from 26% to 35-43% in women, equating to more than 11 million adults (Wang, McPherson, Marsh, Gortmaker & Brown, 2011).

3.2.2. Impact of obesity

Physical health, including risk of type 2 diabetes (Golay & Ybarra, 2005), cardiovascular disease (Poirier & Eckel, 2002) and some cancers (Calle & Thun, 2004), as well as psychological health, including depression (e.g. Luppino, De Wit, Bouvy et al., 2010) anxiety (Gariepy, Nikita & Schmitz, 2010) and lowered self-esteem (Hill & Williams, 1998), are all commonly associated risk factors linked with obesity. Other correlational factors that have been closely linked with obesity and poor health include loneliness (Holt-Lunstad, Smith, Baker, Harris & Stephenson, 2015) and stress (Dallman, 2010), as well as key social determinants including socioeconomic status (e.g. McLaren, 2007), social rejection (Eisenberger, Lieberman & Williams, 2003) and social proximity (Christakis & Fowler, 2007). Though causality between weight and psychological distress is not clearly understood, obese individuals are more susceptible to experiencing body dissatisfaction, stigma and low self-esteem (Atlantis & Baker, 2008). Likewise, a rise in the incidence of psychological and emotional distress has been linked with a detrimental effect on weight loss behaviours (Wott & Carels, 2010). Negative body image also predicts weight gain over time (Van den Berg & Neumark-Sztainer, 2007) and influences a range of unhealthful behaviours including binge eating, smoking, lower intake of fruit and vegetables and reduced levels of activity (Neumark-Sztanier, Paxton, Hannan, Haines & Story, 2006).

3.2.3. Weight loss interventions

Since descriptions of an emergent obesity epidemic first came into view, the subject of weight loss - and specifically how to achieve and maintain it - has been a central focus among policy makers, media, practitioners, researchers and the wider public. Correspondingly, in striving for a solution to the issue of obesity, treatment approaches have been largely driven by a unilateral focus upon weight loss. Three primary treatment modalities endorsed by NICE guidelines (NICE, 2014) -

behavioural, pharmacological and surgical approaches – have emerged as being effective in supporting individuals who are overweight or obese and are backed by an established evidence base.

In the UK, government guidelines point to the management of obesity as being an integral part of clinical practice (Butland, Jebb, Kopelman *et al*., 2007). Generalised estimates suggest that at any given time 28% of British adults are actively trying to lose weight (Wardle, Griffith, Johnson & Rapoport, 2000) and, correspondingly, that 50% of obese men and 58% of obese women in the US are actively engaged in weight loss efforts (Kruger, Galuska, Serdula & Jones, 2004). Indeed, in the US one report suggests that 63% of obese individuals had attempted to lose weight over the past 12 months, with 40% succeeding in losing ≥5% of their initial weight and 20% succeeding in losing 10% (Nicklas, Huskey, Davis & Wee, 2012).

3.2.4. Pharmacological interventions

3.2.4.1. Impact on weight loss

Previous reviews have outlined the efficacy of pharmacological interventions (e.g. Khera, Murad, Chandar *et al*., 2016), in facilitating weight loss and the approach is currently endorsed by national guidelines as an evidence-based treatment (NICE, 2014). In addition to aiding weight loss, other reported clinical outcomes coinciding with use of Orlistat™ have included reductions in waist circumference, body mass index (BMI), blood pressure (BP) and cholesterol (Rucker, Padwal, Li, Curioni & Lau, 2007). In a recent systematic review assessing 28 randomised controlled studies (RCTs), for example, Orlistat was found to be more effective than placebo in achieving weight loss among overweight and obese adults, with "moderate" confidence in estimates (Khera *et al*., 2016). Despite the reported efficacy of this approach, however, previous studies have indicated that between 30% and 60% of drug treatments fail to achieve 5% weight reduction at 12 weeks (e.g. Rissanen, Lean, Rössner, Segal & Sjostrom, 2003).

Evidence for longer-term impact of pharmacological interventions is currently, at best, limited. In a recent systematic review assessing the long-term drug treatment of obesity among 5006 adults across 15 studies, Orlistat was found to increase the likelihood of achieving clinical meaningful weight loss (≥5% of body weight) at 1 year when used in parallel with a lifestyle intervention (Yanovski & Yanovski, 2014), though no evidence beyond this timepoint was available. Corresponding with these findings, a further review of intervention adherence outlined some evidence for the sustainable effectiveness of Orlistat, however data beyond 24 months was limited

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(Dombrowski, Knittle, Avenell, Araujo-Soares & Sniehotta, 2014). Notably, results from all 23 studies (except one) included within the review relied upon only participants who had completed treatment intervention, therefore increasing risk of bias. The need for greater rigour in evaluation procedures including greater replicability, for example, was also reported. In a further review, despite observing modest short term weight reduction among participants undergoing Orlistat treatment, and significant weight reduction when compared with the placebo group (Castaneda-Gonzalez, Camberos-Solis, Bacardi-Gascon, Jiminez-Cruz, 2010), the authors determined that due to a tendency for weight regain following suspension of treatment, negative side effects, high levels of dropout, cost and a lack of evidence after four years, the basis for using a pharmacological approach to treat obesity was not adequately justified. Overall, however, despite mixed findings pharmacological treatments have been shown to increase probability of achieving 5% weight loss at 3, 6 and 12 months, and 10% weight loss at 6 and 12 months, when compared to placebo (Gray, Cooper, Dunkley *et al.*, 2011).

3.2.4.2. Impact on psychosocial wellbeing

Long term obesity medication treatment has been associated with adverse side effects when compared with placebo (Dombrowski *et al.*, 2014) and gastrointestinal issues are commonly reported (Johansson, Neovius, DeSantis, Rössner & Neovius, 2009). Though Orlistat is currently the only globally licensed drug for long-term treatment of obesity other previously recommended pharmacological treatment options such as Rimonabant™ have been found to significantly increase likelihood of mood and anxiety disorders among patients, raising further concern over the possible health risks of pharmacological treatment (Christensen, Kristensen, Bartels, Bliddal & Astrup, 2007). Similarly, weight loss medications have been found to present an exception to the generally positive changes in mood associated with weight loss (Fabricatore, Wadden, Higginbotham *et al.*, 2011). In this light, assessment of long term efficacy with respect to pharmacological interventions must reasonably consider patient safety (Yanovski & Yanovski, 2014). Indeed, in a recent systematic review assessing differing self-directed weight loss strategies, weight loss medications have been described as 'band-aids', viewed as a temporary measure to aid a problem that requires greater intervention (Hartmann-Boyce, Boylan, Jebb, Fletcher & Aveyard, 2017).

3.2.5. Surgical interventions

3.2.5.1. Impact on weight loss

Bariatric surgery has also been shown to be effective in delivering significant short term weight reduction, as reported in a recent systematic review (Chang, Stoll, Song *et al.*, 2014). In a further

review comparing outcomes from surgery and non-surgical interventions across 22 trials (1798 participants), Colquitt and colleagues concluded that surgery delivers greater weight loss outcomes than non-surgical approaches within a follow up period of two years (Colquitt, Pickett, Loveman & Frampton, 2014). However, despite the greater improvement in weight loss outcomes linked with this type of treatment, post-surgery follow up is typically limited to 12-24 months across most studies, and adverse event rates and reoperation rates during this period are poorly reported. Though bariatric surgery has been claimed to provide the "greatest sustainable weight loss" (Poirier, Cornier, Mezzone *et al.*, 2011), no significant differences have been found in the likelihood of successful weight loss maintenance, or predicted weight regain, between individuals who have undergone surgery and those who have lost comparable amounts of weight via non-surgical approaches (Bond, Phelan, Leahey, Hill & Wing, 2009). Indeed, a 10-year longitudinal follow up study of post-surgery patients known as the Swedish Obesity Study (SOS), individuals were observed to have regained nearly a third of the weight lost six years post-surgery (Bond *et al.*, 2009). Further evidence in opposition to the long-term effectiveness of bariatric surgery has also emerged in recent years (Puzziferri, Roshek, Mayo *et al.*, 2014). Despite a lack of consensus in numerical definition of weight recidivism, a subset of participants experience "suboptimal" weight loss or weight regain post-surgery (Karmali, Brar, Shi *et al.*, 2013; Puzziferri *et al.*, 2014). Furthermore, follow up outcomes beyond two years are generally poorly reported. In a recent systematic review investigating long-term follow up after bariatric surgery, for example, Puzziferri and colleagues found that across 7371 studies only 1136 (16%) reported outcomes more than two years following the procedure. Strikingly, of these 1136 studies, only 29 (<3%) observed weight loss in more than 80% of the original participant cohort (Puzziferri *et al.*, 2014). Given these findings, and the common risk of dropout from weight loss studies following participant weight regain, the critical role of long term follow up becomes evident. Notably within the same review, after undertaking "unusually intense efforts" to locate participants lost to follow up, a 60% treatment failure rate was identified among individuals who had been initially classified as having dropped out. The review therefore depicts a landscape of overly optimistic estimates within bariatric surgery as a recommended treatment for obesity, and suggests the need for more comprehensive follow up evaluation which includes assessment of at least 80% of the initial cohort beyond a two-year period.

3.2.5.2. Impact on psychosocial wellbeing

More recent studies have investigated the psychosocial impact of bariatric surgery and subsequent changes in subjective health status, including health related quality of life (HRQoL), psychological morbidity and eating behaviours (Strain, Kolotkin, Dakin *et al.*, 2014; Ogden, Clementi, Alwin & Patel,

2005). Several studies have reported positive correlations between weight loss and measurable HRQoL change when compared to controls (Kolotkin, Crosby, Williams, Hartley & Nicol, 2001; Engel, Crosby, Kolotkin *et al.*, 2003; Faulconbridge, Wadden, Berkowitz *et al.*, 2009; Fabricatore *et al.*, 2011; De Zwaan, Lancaster, Mitchell *et al.*, 2002), and shown consistent significant reductions in psychological morbidity following surgery, including depression symptoms and emotional distress (Blaine, Rodman & Newman, 2007; Van Gemert, Severereijns, Greve, Groenman & Soeters, 1998), and marked improvements in mood state (Kolotkin, Davidson, Crosby, Hunt & Adams, 2012). Corroborating these findings, a recent systematic review of reviews (Kolotkin & Andersen, 2017) reported improvements in both physical and mental aspects of HRQoL following bariatric surgery, with less variation than in other obesity treatments. Notably, consideration was made of the possibility that baseline scores of HRQoL among individuals undergoing surgery may have been lower than for those engaged in non-surgical interventions, allowing greater scope for improvement (Van Nunen, Wouters, Vingerhoets, Hox & Geenen, 2007). Furthermore, in assessing long-term effects of bariatric interventions, the SOS study outlined improvements in health in terms of mood disorders, mental wellbeing, health perceptions and social interaction in line with changes in weight loss, weight maintenance and weight regain (Karlsson, Taft, Ryden, Sjöstrom & Sullivan, 2007). Despite such findings, however, HRQoL among bariatric surgery patients appears to be mixed. Comparing the psychological characteristics of bariatric surgery and non-surgery participants, for example, higher levels of depression were exhibited among surgery patients from study entry to 1 year follow up (Bond *et al.*, 2009). Within the same study, 44% of surgical participants were described as having clinically significant depressive symptoms. Furthermore, despite bariatric surgery resulting in an overall decrease in mortality, a recent systematic review has identified suicide rates as being higher among post-surgery patients, as compared with control groups or the general population (Peterhänsel, Petroff, Klinitzke, Kersting & Wagner, 2013). Evidently, these descriptions lie in contrast with previous analyses which indicate patterns of a decline in depression following both successful surgical and non-surgical weight loss treatments (e.g. Dixon, Dixon & O'Brien, 2003; Blaine *et al.*, 2007; Van Gemert *et al.*, 1998).

The divergence of findings between HRQoL and weight change following bariatric surgery is further mirrored within the qualitative literature, with some post-surgery narratives describing increased quality of life and improvements in mental and physical health, and others reporting a decline (Wood & Ogden, 2012). Though the mechanisms leading to improved or worsening perceptions of HRQoL are not well understood, all participants who reported an improvement in this domain were successful weight losers, which may suggest a link to perceived changes in body image or physical

health. Through a wider lens, it also appears feasible that for post-surgery patients, gastric restrictions dictate an initial shift in their relationship with food, which in turn may influence perceptions of health status and, subsequently, identity (Ogden *et al*., 2005). More broadly, the use of different HRQoL instruments in evaluations and the range of surgical procedures available make comparative assessments of health-related outcomes following weight loss surgery difficult to establish. Whether post-bariatric weight loss correlates with changes in depressive symptoms, and the processes involved, at this stage remains unclear (Strain *et al*., 2014).

3.2.6. Behavioural and psychological interventions

Behavioural interventions are the most commonly used form of treatment and are currently recommended as the first line approach for weight management (Butryn, Webb & Wadden, 2011; NICE, 2015). Such intervention approaches can vary widely in format and content, however all typically incorporate a combination of the following components: lifestyle guidance on diet and physical activity; goal setting; self-monitoring (including maintaining a food diary); portion control; problem solving, and; social support (Greaves, Sheppard, Abraham *et al*., 2011). Some behavioural interventions focus attention on the cognitive dimensions of food and activity behaviours, and may specifically include: cognitive restructuring; identifying emotional triggers of eating; assertiveness training; stress reduction (e.g. mindfulness), and; emotional coping strategies (e.g. Cooper, Fairburn & Hawker, 2003; Teixeira, Going, Houtkooper *et al*., 2004). Indeed, it is becoming increasingly clear that in order to understand why weight loss and maintenance fails in the long run, the psychological context must be addressed (Lih-Mei Liao, 2000; Cooper *et al*., 2003). Echoing this stance, a recent National Institute of Health (NIH) working group reporting on innovations to improve weight loss maintenance concluded that despite progress in behavioural strategies a "deeper understanding of cognitive function", alongside behavioural skill development, is necessary to overcome pressures of weight regain (MacLean, Wing, Davidson *et al*., 2015). Though their primary function is to support weight loss, interventions which integrate cognitive components may also have the ancillary effect of improving psychological outcomes.

Behavioural interventions typically involve similar diet and physical activity recommendations, however vary in the behavioural strategies used and number frequency and duration of sessions (Hartmann-Boyce, Johns, Jebb & Aveyard, 2014). Interventions generally target the achievement of 0.5kg-1kg body weight loss and 5% weight loss over the programme duration, which has been previously associated with clinically significant health benefits (Kolotkin *et al*., 2001; Wing, Lang, Wadden *et al*., 2011).

3.2.6.1. Impact on weight loss

Given the widespread engagement in personal weight loss efforts (Kruger *et al*., 2004; Wardle *et al*., 2000) it is conceivable that a significant proportion of individuals attempting to lose weight do so through participation in structured behavioural weight management interventions. Recent reviews investigating the role of community-based weight management programmes in achieving modest but clinically meaningful weight loss among its participants raise significant questions concerning their effectiveness. In a recent systematic review, for example, across 25 studies reviewed, 57% of individuals attending commercial weight management programmes were observed to have lost less than 5% of their initial body weight over a programme period ranging between eight and 104 weeks, whilst nearly one in two studies (49%) reported an attrition rate of ≥30% (McEvedy, Sullivan-Mort, McLean, Pascoe & Paxton, 2017). This evidence challenges the findings of other recent reviews assessing the efficacy of commercial weight loss programmes, which describe the superiority and cost effectiveness of Weight Watchers™ over a 12-month period, as compared with other commercial programmes and medications (Gudzune, Doshi, Mehta *et al*., 2015). A further systematic review examining the effectiveness of behavioural weight loss interventions for obese adults delivered within a primary care setting highlights a similar trend in describing a "negligible" effect on participant weight at 12 and 24 months (i.e. >5% body weight) (Booth, Prevost, Wright & Gulliford, 2014). Supporting this evidence, in a nine-year follow up study the annual probability of achieving >5% weight loss among individuals with morbid obesity was found to be 1 in 8 for men and 1 in 7 for women (Fildes, Charlton, Rudisill *et al*., 2015).

Though heterogenous in nature, the literature on attrition rates within obesity treatment interventions draws a similarly unedifying picture. Specifically, rates across studies vary considerably, with estimates ranging from 10% to 80% depending on the setting and the type of programme (Moroshko, Brennan & O'Brien, 2011). In a further exploration of attrition rates within behavioural weight loss intervention trials, mean attrition rate was found to be more than 40% within the first 12 months (Dansinger, Gleason, Griffith, Selker & Schaefer, 2005). In a recent systematic review assessing weight loss intervention adherence across behavioural treatment strategies, Lemstra and colleagues found adherence rates to be "generally low", and as low as 10% in one 12-month study (Lemstra, Bird, Nwankwo, Rogers & Moraros, 2016). Previous reviews have reported similarly high rates of attrition (e.g. Franz, VanWormer, Crain *et al*., 2007), with many participants dropping out prior to the maintenance phase (Dombrowski *et al*., 2014). In sum, high rates of attrition are ubiquitous within the obesity literature, and it is evident that most behavioural

weight loss programmes do not compile data on reasons why participants drop out (Finley, Barlow, Greenway *et al*., 2007).

Predictors of dropout from weight management programmes are similarly diverse. As Moroshko and colleagues describe in a systematic review of reasons for dropout from weight loss programmes, such factors vary widely and include demographics (e.g. age, gender, cultural identity and socio-economic factors), psychological and physiological health (e.g. depression, anxiety, self-esteem, responses to obesity stigma, social structures and personality factors), behavioural (e.g. previous weight loss experiences) and treatment-related factors (e.g. intervention type) (Moroshko *et al*., 2011). Whether due to a lack of intervention effectiveness, low intervention uptake or other causal factors, these findings raise legitimate questions about the usefulness of current behavioural and psychological obesity treatment frameworks in attaining statistically and clinically significant reductions in BMI among the majority of obese individuals.

3.2.6.2. Impact on psychosocial well-being

Historically, the notion of weight loss has been most commonly associated with its well documented physiological benefits, with psychosocial factors taking a back seat. More recently, however, authors have sought greater understanding of the psychological dimensions of weight loss, viewed through the lens of HRQoL measures which capture, at a minimum, a snapshot of self-perceived physical, psychological and social functioning (Andersen, Karlsen & Kolotkin, 2014). In a recent systematic review of 36 studies assessing the psychological consequences of weight loss among obese individuals participating in a behavioural intervention (Lasikiewicz, Myrissa, Hoyland & Lawton, 2014), positive psychological changes were widely observed across four key dimensions: self-esteem; depressive episodes; body image, and; HRQoL. Notably, with respect to psychological HRQoL indicators, vitality was particularly influenced by weight loss and correlated positively with amount of weight lost (Kolotkin *et al*., 2009) with this effect observed up to 1-year post intervention (Vasiljevic, Ralevic, Kolotkin, Marinkovic & Jorga, 2012). Despite some studies within the review reporting a correlation between amount of weight lost and degree of psychological improvement, to date the notion of psychological outcomes resulting as a direct consequence of weight loss has not been conclusively determined and remains a considerable methodological limitation. Indeed, improved psychological outcomes, for example, have been reported in the absence of weight loss (e.g. Bryan & Tiggemann, 2001; Nauta, Hospers & Jansen, 2001) and even during instances of weight gain (Blissmer, Riebe, Dye *et al*., 2006; Nauta *et al*., 2001). Likewise, previous studies have also observed a decline in psychological health among some participants despite reporting significant

weight loss (Wood & Ogden, 2012; Yankura, Conroy, Hess *et al.*, 2008). For many, the increased level of social support and self-acceptance garnered within the context of an intervention may be enough to stimulate adaptive perceptions of self and, subsequently, improved psychological wellbeing irrespective of the degree of weight loss (Bacon & Aphramor, 2011; Brodie & Slade, 1990). Further challenging this link, in a meta-analysis assessing the effect of weight loss interventions on HRQoL, Maciejewski and colleagues found no treatment effect and a lack of consistent improvement in depressive symptoms, and QoL more widely (Maciejewski, Patrick & Williamson, 2005). Methodological concerns outlined within the review included a paucity of quality clinical trials and a lack of standardisation in HRQoL measures. More recent reviews have also highlighted similar challenges in pooling outcomes as well as factors which may further explain the inconsistent link between weight loss and improved HRQoL (Kolotkin & Andersen, 2017; Warkentin, Das, Majumdar, Johnson & Padwal, 2014). These include: the heterogenous nature of weight loss interventions and participants (e.g. duration, type and sample demographic); poor reporting of HRQoL outcomes (given that weight loss rather than HRQoL is typically the primary outcome); high rates of patient dropout from interventions, and; a lack of power of assessment tools used in place of obesity specific instruments, resulting in limitations in detecting differences in HRQoL outcomes. In sum, and mirroring the previous findings of Maciejewski and colleagues (2005) recent reviews have described a paucity of data quality, though evidence for limited HRQoL improvement in physical but not mental health has been put forward (Warkentin et al., 2014).

Contradicting these findings, more recent reviews have revealed evidence for the positive impact of various behavioural weight loss interventions on symptoms of depression among individuals without pre-existing psychopathology (Fabricatore *et al.*, 2011), with lifestyle modification having a marginally greater influence than other interventions (i.e. bariatric or pharmacological interventions). Similarly, the Look AHEAD study - a large RCT examining the effects of intentional weight loss among overweight and obese participants with Type 2 diabetes observed a lower incidence of significant depressive symptoms among individuals receiving an intensive lifestyle intervention as compared with those who received 'usual' care (Faulconbridge *et al.*, 2009). Whether weight loss itself was linked to increased or decreased symptoms of depression, however, remains unclear. Non-dieting programmes, for example, which were not intended to, and did not, facilitate weight loss also led to significant reductions in depression symptoms and improved mood (e.g. Bacon & Aphramor, 2011), which suggests that improvements in these aspects are not uniquely attributable to successful weight loss.

Further blurring the lines on the influence of weight loss, the relationship between obesity and depression appears to be bidirectional, with some studies linking depression to subsequent weight gain and obesity (e.g. Murphy, Horton, Burke *et al.*, 2009), whilst others have identified a reverse pattern, linking obesity with the onset of depression (Herva, Laitinen, Miettunen *et al.*, 2006; Roberts, Deleger, Strawbridge & Kaplan, 2003).

Whether HRQoL outcomes can be attributed specifically to weight loss, therefore, or indeed to other aspects of the weight loss intervention, has not been adequately determined and the relationship between HRQoL and weight loss remains poorly understood (Warkentin *et al.*, 2014; Kolotkin & Anderson, 2017). Further exploration into the mediating effects of weight loss, obesity and HRQoL, and their interaction, is required to obtain greater clarity on the influence of specific intervention variables. Through this lens, it may be possible to observe more closely whether or not improvements in HRQoL are dependent on weight loss, the likelihood of some individuals experiencing a decline in HRQoL following weight loss, and the impact on HRQoL of weight regain, for example.

3.2.7. Effective components

Over recent years, research has sought to isolate the effective components of behavioural weight loss interventions, which broadly may be separated into and *intervention* and *individual* predictors of effectiveness.

3.2.7.1. Intervention characteristics

Behavioural weight management interventions typically incorporate various combinations of nutritional, behavioural and, more recently, cognitive components. Factors influencing the effectiveness of such interventions have been the subject of much research, and whilst the 'active ingredients' distinguishing effective from ineffective behavioural interventions have been problematic to deconstruct (Hartmann-Boyce, Johns & Aveyard, 2013), some progress has been made. Attempts to delineate effective components and standardise reporting of content within behavioural interventions, for instance, have more recently resulted in the emergence of classifications such as the Behaviour Change Taxonomy (BCT) (Abraham & Michie, 2008). Within this framework, behaviour change techniques are defined as the "observable, replicable and irreducible" strands designed to change behaviour (Michie, Richardson, Johnston *et al.*, 2013). Meta regression analysis techniques used to establish the effectiveness of these individual components have also helped to reveal the active ingredients in healthy eating and physical activity interventions (Michie,

Abraham, Whittington, McAteer & Gupta, 2009). Within such interventions, self-monitoring, in combination with prompting intention formation, specifying goals in relation to specific contextualised actions, providing feedback on performance and reviewing previously set goals, for instance, have all be shown to have a significant improvement on effectiveness.

A recent systematic review further describes dietary and physical activity components as being "moderately effective" in slowing weight regain following an initial weight loss period of up to 24 months (Dombrowski *et al*., 2014). More specifically, behaviour change techniques deriving from self-regulation or control theory (Carver & Scheier, 1998), including intention formation, specific goal setting and review of behavioural goals, and self-monitoring, have been found to be effective in eliciting greater weight loss than control conditions (Michie *et al*., 2009; Dombrowski, Sniehotta, Avenell *et al*., 2012). Similarly, in a systematic review of successful behaviour change in weight loss interventions (Teixeira, Carraça, Marques *et al*., 2015), autonomous motivation, self-efficacy and self-regulation skills (e.g. via self-monitoring) emerged as the most consistent predictors of weight and physical activity outcomes. Though self-monitoring may increase a sense of autonomy, however, evidence to suggest that it may facilitate an increase in psychological distress and attrition has also been reported (Dionne & Yeudall, 2005). Relating specifically to healthy eating and physical activity interventions, Michie and colleagues identified 26 key behaviour change techniques as being effective in supporting weight loss (Michie *et al*., 2009). The most prominent of these included intention formation, provision of information on consequences and behavioural health risks, provision of instruction and feedback on performance. Within the same study, other intervention design characteristics such as duration, intervention facilitator, delivery format (individual vs group), number of sessions, setting and target population, for example, did not appear to influence intervention effectiveness. Intervention content, on the other hand, was found to be associated with effectiveness.

Previous studies have reported weight loss outcomes as being superior within weight management interventions which are delivered in group rather than individual settings (Paul-Ebhohimhen & Avenell, 2009). Qualitative findings have also identified key facets which support the adoption of positive lifestyle behaviours within the context of group-based weight loss interventions. These include social support, accountability, empathy, role modelling, problem solving and information-sharing (Metzgar, Preston, Miller & Nickols-Richardson, 2015; Butryn *et al*., 2011; Hayaki & Brownell, 1996; Latner, Stunkard, Wilson & Jackson, 2006). The importance of the group as an ingredient to success is further affirmed by other qualitative studies (e.g. Webb, Davies, Johnson & Abayomi,

2014; Gray, Anderson, Clarke *et al*., 2009) which describe the group as central in promoting motivation and providing a 'safe place' in which participants can openly discuss weight-related issues. More recently, in exploring the experience of weight loss from the perspective of the participant, Tarrant and colleagues observed that patients on a post-bariatric surgery behavioural group programme felt a sense of support through the 'psychological connections' made with other members of the group (Tarrant, Khan, Farrow *et al*., 2017). Sharing of personal experiences and challenges led patients to view their weight problem through a shared social identity, or 'collective lens', empowering the individual to initiate and sustain their own health behaviours. Similarly, Metzgar and colleagues have previously identified several facilitators supporting the efforts of women on a weight loss programme, which include accountability to others, access to social support (e.g. from friends or family), planning ahead, awareness and mindfulness of food choices, basic nutrition education from a creditable source, portion control, exercise and self-motivation (Metzgar *et al*., 2015).

Though still at a nascent stage, research investigating the psychological aspects of behavioural treatment for weight management has continued to build. Several reviews, for example, have investigated the effectiveness of various psychotherapeutic models used in the context of weight loss and provide an intermittent view of the landscape. Mindfulness is an approach which has been shown to support self-regulatory capacity and has been increasingly integrated within weight management settings (Godsey, 2013; Caldwell, Baime & Wolever, 2012). A systematic review of 19 weight management interventions incorporating this approach as a core methodology, revealed statistically significant weight loss in the mindfulness condition across 13 studies, though the strength of the relationship was limited by methodological factors (Olson & Emery, 2015). In a similar review of weight loss interventions incorporating mindfulness, a reduction in symptoms of binge eating was identified, though no significant effect on weight loss was observed (Katterman, Kleinman, Hood, Nackers & Corsica, 2014). Cognitive Behavioural Therapy (CBT) offers strategies for working with disordered styles of thinking and has been defined as the 'treatment of choice' for binge eating disorder (NICE, 2017). Despite considerable research demonstrating efficacy in treating disordered eating patterns (e.g. Stahre & Hällström, 2005), however, evidence to validate CBT as an approach to facilitate weight loss is lacking. Emerging within a 'third wave' of cognitive therapies, Acceptance and Commitment Therapy (ACT) has also been explored as a framework for psychological treatment in the context of weight management. With a core focus on defusing pressures of restraint through increasing tolerance of aversive sensations and moving toward value oriented behaviours, ACT principles are increasingly being utilised to facilitate ongoing dietary and

physical activity behaviours. A review of weight loss interventions incorporating ACT tools provides early evidence of a small but significant effect on weight loss, with studies demonstrating effective outcomes for up to one year post intervention (Kseib, 2017; in preparation).

3.2.7.2. Individual characteristics

Quantitative research has uncovered potential individual predictors leading to weight relapse, which range across social, cognitive, biological and environmental domains, amongst others (Butland *et al.*, 2007). Despite this, cluster effects arising from confounding variables limit the ability to delineate these results and establish causality. Both intra and inter-subject variability are therefore significant factors which limit the ability to predict successful or unsuccessful outcomes (Stubbs, Whybrow & Teixeira, 2011). Though historically, no association between personality traits and treatment outcomes have been observed (Teixeira, Going, Sardinha & Lohman, 2005), more recent studies have identified a strong link between the personality trait "conscientiousness" (characterised as being task oriented, well organised and self-disciplined) and obesity (Jokela, Hintsanen, Hakulinen *et al.*, 2013). Individuals with a high level of conscientiousness, for instance, have been found to be upto 40% less likely to be obese, and more likely to lose weight during a weight loss intervention. Other studies have revealed similar associations, such as the link between elevated novelty seeking tendencies and a decreased likelihood of successful weight loss, for example (Sullivan, Cloninger, Przybeck & Klein, 2007).

Though motivation generally tends to be high when commencing a behavioural weight management programme, such motivation appears to wane over time (West, Gorin, Subak *et al.*, 2011). Likewise, participant expectations are also high with individuals expecting to lose, on average, four times the weight they actually do (Fabricatore, Wadden, Womble *et al.*, 2007). Perhaps surprisingly, however, failure to meet short term weight loss expectations was not linked to poorer long-term outcomes, though these findings did not include data on participants who dropped out.

Positive body image and flexible eating restraint may also predict successful weight outcomes (Teixeira *et al.*, 2015). Conversely, barriers to weight loss include life transitions (e.g. a problematic relationship or divorce triggering emotional difficulties), health status changes, internal factors, a lack of accountability and environmental pressures (Metzgar *et al.*, 2015). Within controlled scenarios in which environmental changes are involuntarily manipulated, for example, successful weight loss can be efficiently achieved (Rössner, 2008).

Though participant characteristics are not directly correlated with weight loss, several specific factors are closely associated with attrition within behavioural weight loss interventions including gender (i.e. higher attrition observed among females), lower education, immigrant status, lack of occupation, fewer previous weight experiences and body dissatisfaction (Elfhag & Rössner, 2010). Similarly, experiences of stress, and baseline depressive symptoms have also been shown to be predictive of attrition in behavioural interventions and, as such, represent barriers to weight loss (Fabricatore et al., 2011). Encapsulating these findings in a structured telephone interview with former participants, Grossi and colleagues cited practical difficulties and psychological challenges as being the most prevalent reasons for attrition (Grossi, Dalle Grave, Mannuci et al., 2006).

3.2.8. Weight loss maintenance

Weight loss maintenance interventions typically incorporate many similar components as those integrated within behavioural weight loss interventions, including self-regulation and social support, as well as problem solving skills to overcome barriers in the long run (Perri, Limacher, Durning et al., 2008; Perri, Nezu, McKelvey et al., 2001). Despite this, major challenges of delineation between weight loss and weight maintenance exist (Cooper et al., 2003). Further, given that maintenance of weight loss over time is highly elusive when compared with initial weight loss, it is conceivable that behavioural maintenance demands different and evolving strategies, rather than the same action sustained over time (Sciamanna, Kiernan, Rolls et al., 2011). Longitudinal research has reported weight regain among 50% of individuals within 6-12 months post intervention (Barte, Ter Bogt, Bogers et al., 2010; Elfhag & Rössner, 2005), with weight loss typically peaking around six months into the weight loss attempt and a gradual pattern of weight regain within 3-5 years in most individuals (Jeffrey, Epstein, Wilson et al., 2000; Dombrowski et al., 2014). In a similar vein, 80% of individuals who lose 10% of their body weight may be expected to regain the weight in a year (Wing & Phelan, 2005). Corroborating these findings, one population-based study of nearly 1000 individuals over a nine-year follow up period, found weight loss maintenance to be rare with only 5% of overweight women and 7% of overweight men maintaining 5% weight loss over the period (Sarlio-Lähteenkorva, Rissanen & Kaprio, 2000). In a similar vein, a longitudinal UK-based population study between 2004 and 2014 observed the annual probability for attaining a normal body weight to be 1 in 210 among men and 1 in 124 among women, ratios which increase sharply among men and women with morbid obesity (1 in 1290 and 1 in 677, respectively) (Fildes et al., 2015). Mirroring findings from previous research, the study also found that most individuals who achieved a 5% reduction in initial body weight regained the weight lost within two to five years. Weight cycling, exhibited by both increases and decreases in BMI, was also reported to be common among morbidly

obese men (51%) and women (52%), underscoring further the challenges of managing healthy weight following an initial period of weight loss. High levels of weight cycling, or relapse, in weight management efforts reflect the challenges in persisting with behaviours initially adopted to achieve weight loss. The impact of adherence to diet and activity prescriptions and group attendance in both initial and long-term weight loss has also been highlighted in previous studies, with a strong temporal link associated with sustaining conscious control over eating behaviours (Wadden, West, Neiberg *et al*., 2009; Wing & Phelan, 2005). More specifically, individuals successfully maintaining weight loss over a two-year period, for example, were more than twice as likely to continue this trajectory, whereas those who regained the most weight a year after the intervention were likeliest to continue relapsing (Wing & Phelan, 2005).

3.2.9. Predictors of weight loss maintenance

3.2.9.1. Intervention characteristics

A recent systematic review of maintenance outcomes across non-surgical weight management interventions offered support for the efficacy of behavioural weight loss interventions in reducing weight regain following an initial period of weight loss (Dombrowski *et al*., 2014). Specifically, lifestyle interventions incorporating dietary and physical activity components showed a small but significant effect on weight loss maintenance for up to 24 months, though strength of the evidence was limited due to moderate heterogeneity of studies reviewed and potential risk of bias. Further, the majority of studies included in the review reported outcomes only for participants who completed the intervention, a factor which draws attention to possible wider concerns of potential selection bias relating to weight loss maintenance. Avoiding a diet or 'quick fix' mentality in the service of moving toward a total lifestyle approach was also reported as a key factor to ongoing weight maintenance, which is consistent with previous studies highlighting the shortcomings of diet-focused approaches (e.g. Mann, Tomiyama, Westling *et al*., 2007).

Increasingly, studies are turning attention to the psychological nature of weight loss maintenance and, equally, weight relapse. Data from the National Control Weight Registry (NWCR), for example, a 10-year follow up study charting the key characteristics and behaviours associated with weight loss maintenance, points to the importance of developing active problem solving and flexible coping skills and strategies to avoid, or manage, relapses both with respect to behaviour (e.g. diet and exercise) and emotion (e.g. gaining awareness of triggers, emotion regulation and cultivating social support) (McGuire, Wing, Klem, Seagle & Hill, 1998; Wing & Hill, 2001; Phelan, Hill, Lang, Dibello & Wing, 2003).

3.2.9.2. Individual characteristics

Previous experience of weight loss attempts and attitudes toward them appear to impact significantly on weight maintenance outcomes. Research in this domain, for example, has indicated that those who regain lost weight following a weight management programme are also more likely to overeat in response to negative emotional states and as a coping strategy when faced with problems (Byrne, 2002; Friedman, Reichmann, Costanzo & Musante, 2002; Kayman, Bruvold & Stern, 1990; Ozier, Kendrick, Leeper *et al*., 2008). In a qualitative study examining attitudes toward dieting, reasons for failure following weight loss attempts, and views on optimal approaches among people living with obesity, Thomas and colleagues concluded that, for many obese individuals, turning to 'quick fix' solutions typically reflected a conditioned response to societal pressures and did not result in sustained weight loss (Thomas, Hyde, Karunaratne, Kausman & Komesaroff, 2008). Declining adherence may relate to perceived costs of adherence gradually exceeding perceived benefits (Perri *et al*., 1998). The cognitive and physical effort needed to lose weight, for instance, was found to often override feelings arising from an initial sense of accomplishment, better fit of clothes and positive reinforcement from others, which individuals habituated to over time. Despite this, two-thirds of participants still felt that dieting was an effective way to lose weight, and internalised blame when diet attempts failed. Though a poor predictor of initial weight loss, difficulties in engaging with exercise or physical activity were correlated with challenges in maintaining healthy lifestyles – a critical factor given the significance of increased physical activity and decreased sedentariness in maintaining weight loss (Fogelholm & Kukkonen-Harjula, 2000; Wing & Phelan, 2005). The negative impact stemming from an absence of healthy social networks and support is also consistent with previous findings (Metzgar *et al*., 2015).

Previous reviews have also reported weight loss maintenance as being more likely to endure among individuals who had attended the most sessions of a Weight Watchers programme (Gudzune *et al*., 2015; Tsai & Wadden, 2005). Other authors, however, contest this notion and questions remain over causality and whether adherence to extended treatment prevents weight regain, or simply delays it (Wadden, Butryn & Byrne, 2004; Jeffery *et al*., 2000).

In forming a psychological profile and dynamic system of adaptive behaviours necessary to achieve long term success, therefore, it is evident that the cultivation of self-efficacy and autonomy is critical to the process. Reflecting this, previous studies have identified self-efficacy as being predictive of successful weight loss maintenance over the long term (e.g. Dennis & Goldberg, 1996; Karlsson, Hallgren, Kral *et al*., 1994).

Despite these characteristics, causal factors underpinning weight loss maintenance remain largely unclear. Rather than a behavioural fingerprint for successful weight loss maintenance, solutions to the issue appear to be complex, heterogeneous and highly evolving. Findings from the NCWR, for example, indicate that among those maintaining weight loss over several years, many do so alone and integrate workable solutions within the changing patterns of their own lives, which differ between individuals and over time (Kayman *et al*., 1990).

3.3 Rationale

The current landscape relating to behaviour change in the context of weight loss and weight loss maintenance is, evidently, complex. Indeed, it appears likely that individual predictors may only explain, at best, a small percentage of variance in weight loss trajectory and that successful endeavours in this domain require unique combinations of interrelated components (Stubbs *et al*., 2011). Furthermore, these individual components can rarely be delivered in silo, likely interact, and are only effective under specific conditions (Schaalma & Kok, 2009). Over recent years, descriptions such as the Behaviour Change Taxonomy (Abraham & Michie, 2008; Michie & Johnston, 2012) and intervention mapping (Bartholomew, Parcel & Kok, 1998), have been focused on codifying and categorising behaviour change techniques. However, to date, little attention has been paid to understanding the temporal and contextual dynamics of the weight loss journey (Sniehotta, Simpson & Greaves, 2014). At the same time, amidst a dearth of quantitative research, participant narratives are being viewed as increasingly critical to the understanding of upstream determinants such as autonomy and empowerment, social networks and messaging relating to weight (Thomas *et al*., 2008). From this standpoint, there lies an opportunity to explore weight trajectory as a process rather than as a goal by tracking the retrospective and subjective experiences of individuals who have participated in a psychologically-based behavioural intervention for which initial weight loss and its maintenance was the target outcome.

3.4 Aims and objectives

Adopting a qualitative, cross-sectional design, the current study will explore along a continuum across time the weight journey of participants who have previously taken part in a psychologically-based weight management programme. By listening to and documenting their views and experiences the study further aims to describe the barriers and facilitators governing both initial weight loss and its maintenance as the end goal, and the complex interactions between behaviours, attitudes, motivations, emotions, social influences and other determinants both during and post-intervention.

3.5 Methods

3.5.1. Research design

The current study adopted an inductive qualitative approach designed to capture the experiences of individuals who had previously participated on a MoreLife programme using face-to-face, semi-structured focus groups and 1-1 interviews. In addition to a focus group format, 1-1 interviews were undertaken for individuals who had expressed an interest in sharing their experiences, but were unable to attend one of the scheduled focus groups.

3.5.2. Intervention

MoreLife, a recognised expert provider of evidence-based weight management services nationally, was commissioned by Oxfordshire County Council in Autumn 2013 to deliver a psychologically-led adult weight management service across Oxfordshire. As a Tier 3 service, the MoreLife programme formed part of the local obesity care pathway and was available to adults with a BMI>40 (or BMI>35 with co-morbidities). The core MoreLife adult curriculum incorporated a psycho-educational framework aligned to current national guidelines on weight management (NICE, 2014). Delivered from community venues (e.g. schools, churches and village halls) sessions involved groups of between 10-15 participants attending sessions lasting between 60-90 minutes. Programme sessions were delivered by experienced facilitators with a psychotherapeutic background and expertise (i.e. psychotherapists, psychologists and coaches). Facilitators received curriculum training, supervision and observational support, both prior to delivery and on an ongoing basis.

The MoreLife programme integrated key psychological concepts and principles adapted from a cognitive model of therapy within a weight management context. At its core, the model centred upon four key building blocks: 1) *Self-awareness* 2) *Self-reliance*; 3) *Self-regulation*, and; 4) *Self and others*. The programme consisted of 12 weekly sessions (including two dietetic-focused sessions delivered at Session 2 and 8), followed by two fortnightly sessions and eight once-monthly sessions (22 sessions in total, delivered over a 1-year period). Participants were given a workbook and resources relating to each topic. Individuals were encouraged to set goals to be worked towards in-between sessions. A list of individual session titles for the weekly and fortnightly sessions is provided in Table 3.1.

Table 3.1. Session Topics

Session Topics	
Session 1	*Programme introduction and getting started*; Goal setting
Session 2	*Dietetic session: Choosing a food strategy for weight loss*
Session 3	*Accessing Feelings: Keeping a food diary*
Session 4	*Managing monitoring: Using monitoring to access thoughts*
Session 5	*Approaching activity*
Session 6	*What matters most? Exploring your values*
Session 7	*Who and what influences you?*
Session 8	*Dietetic session: Evaluating your food approach for weight loss*
Session 9	*Hurdles in the weight loss journey: Handling difficult situations*
Session 10	*Emotions and food*
Session 11	*Understanding self*
Session 12	*Building self*
Session 13	*Managing setbacks*
Session 14	*Staying on track*

Each session incorporated behavioural skills training and techniques related to the Behaviour Change Taxonomy (Michie *et al*., 2013) which aimed to foster healthy cognitions and support adaptive behaviour change. These included goal setting and planning, self-monitoring (e.g. food diary and weigh in), barrier identification, relapse prevention, assertiveness training, stress management (e.g. mindfulness), general encouragement and support (Appendix 3a, page 159).

3.5.3. Participants

Inclusion and exclusion criteria

Previous engagement on the MoreLife programme since October 2013, attendance at a minimum of five sessions, and a willingness to take part in a focus group or 1-1 interview were the inclusion criteria for involvement in the current study. Individuals who had attended fewer than five sessions may have provided valuable insights into reasons for dropping out, however it was deemed that this group would not have been able to participate fully in the programme and so were not contacted in this instance.

3.5.4. Procedure

Identification of participants and consent

A list of all participants who had attended a MoreLife programme since October 2013 and completed prior to March 2016, was compiled by the Trainee (KK). At this point, inclusion and exclusion criteria for each individual was assessed and a list of eligible participants created. The Trainee then contacted these participants via email and telephone to invite them to take part in the study. Individuals were provided with details of the aims of the study - namely that they were being asked

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to share their experiences on attending the MoreLife programme – and invited to attend a focus group. Individuals interested in taking part contacted the researcher (KK) either via email or telephone and confirmed attendance on a focus group most convenient to them. If an individual was interested, but unable or unwilling to attend a focus group, the option of a 1-1 interview was offered where possible. Individuals who signalled their interest in participation were contacted via email and telephone in the days leading up to the focus group or 1-1 to confirm their attendance.

Participants were welcomed by the Trainee at each focus group and 1-1 interview and given a participant information sheet (Appendix 3b, page 162) with sufficient time to read the form and ask questions. A consent form was also provided in tandem, which participants were required to read and sign before the focus group or 1-1 interview began (Appendix 3c, page 166).

3.5.5. Interview procedure

Data collection was conducted between March and June 2016. Before commencing the interview or focus group, the researcher verbally reiterated the aims of the study and the right of participants to withdraw at any time, and that any information provided would be kept confidential. All focus groups and 1-1 interviews were conducted by the Trainee and audio recorded with participant consent. Following each focus group and 1-1 interview, participants were given a debrief form, again confirming the purpose of the study and containing relevant contact details of the Trainee, academic supervisor and MoreLife (Appendix 3d, page 168). Participants were not compensated financially for taking part.

3.5.6. Location of the interviews

The interviewer travelled to seven locations across Oxfordshire to deliver the focus groups and 1-1 interviews – Summertown, Banbury, Didcot, Bicester, Cowley, Abingdon and Witney - which were chosen based on accessibility and familiarity of venue location for potential participants. All participants were given a choice of venue and, where unable to attend, were offered the option of a 1-1 interview at a convenient time and location for them.

3.5.7. Topic guide

An interview schedule (Table 3.2.) was developed used in both the focus groups and 1-1 interviews. Potential interview questions were devised and submitted to the Trainee's academic supervisor (CS) and workplace supervisor (NS) for critical review with feedback discussed to ensure clarity, sensitivity and relevance of the questions. Given the semi-structured nature of the focus group

discussions and 1-1 interviews, the topic guide was intentionally kept broad into order to incorporate a wide range of relevant discussion points and allow the flexibility to probe participant feelings more deeply where necessary. The topic schedule covered participant reflections of their experience during the intervention and their ongoing weight loss journey. Rather than a strict interview format, questions were used as prompts and the schedule served as an overall guide to extrapolate detailed accounts of the experiences of participants.

Table 3.2. Interview schedule

a)	How convenient did you feel the times and locations of the group were?
b)	Could you tell me about your experiences on the MoreLife programme? What worked? What didn't work? What could have been done differently?
c)	What was your experience of being involved in a group like?
d)	Can you tell me about any thoughts or comments about the Weight Management Practitioner (WMP) you worked with?
e)	What did you find to be most helpful about the nutritional aspects of the programme?
f)	What did you find to be most helpful about the psychological aspects of the programme?
g)	How did it feel when the programme ended? How would you describe your experiences following the programme?
h)	What did success look like for you? Do you feel you were successful? If not, what did you feel was standing in the way?

3.5.8. Sample size

Given that qualitative research is concerned with richness of data, rather than the counting of opinions or beliefs represented by a quantitative approach, sample size calculations differ between the two methodologies (Kuzel, 1992). In seeking to achieve as representative a sample as possible, the current study initially sought to recruit 40 participants, with scope for additional recruitment where saturation had not been met. Data saturation was considered to have been reached when no new patterns or themes were emerging. To assess whether the perceived point of saturation was substantive, the Trainee explored initial codes at this stage to confirm this perspective.

3.5.9. Analysis

An inductive thematic approach (Clarke & Braun, 2014) was adopted to analyse the data generated from focus groups and 1-1 interviews, using NVivo 11.0 (QSR International Pty Ltd., 2015). Thematic analysis, a method for identifying, analysing and reporting patterns within data, was selected for its flexibility and adaptability across a large dataset. The viability of thematic analysis as a 'contextualist' method, sitting in between essentialism and constructionism, also allowed for the meanings and reality of participants to be considered alongside the broader scope of social context. The approach

therefore provided a twin lens to examine both surface 'reality' and, at the same time, engage in a deeper exploration of meaning and reality embedded within the individual experience.

Though Interpretative Phenomenological Analysis (IPA) (Smith, Flowers & Larkin, 2009) may have served to deconstruct the lived experience of participants, the study was more concerned with the experience across the sample rather than that of specific individuals. Further, IPA generally requires a small homogenous sample of between three and six participants (Smith *et al*., 2009), and so for these reasons combined this approach was not selected.

Given that a specific question was not being asked, an inductive, or 'bottom up' thematic approach also permitted coding of the data without the existence of a pre-existing coding frame. In this way, grounded theory (Glaser, 2017) could also reasonably have been adopted as an approach. The current research, however, was focused more on summarising data into themes which could then be articulated, rather than developing a novel theory to explain the findings (Ryan & Bernard, 2000). Thematic analysis involves searching across a data set to find repeated patterns of meaning (Clarke & Braun, 2014). Corresponding with the six phases outlined by its authors, the analytic process incorporated the following steps:

Phase One: Familiarising yourself with your data - All audio recordings were transcribed verbatim by the Trainee. Transcripts were then read and re-read by the Trainee in search of meaning and patterns, and initial notes about possible themes were made during this process.

Phase Two: Generating initial codes - A list of initial ideas and key concepts was compiled at this stage. Text in the transcripts was coded if it related to participant experiences of weight management or their participation within the MoreLife intervention. Line by line coding was undertaken on all 15 transcripts and initial codes grounded in the data were elucidated from the first five transcripts. Data relevant to each code was collated across the remaining transcripts, with any further codes not previously identified also created. This stage of coding generated a preliminary list of codes (nodes).

Phase Three: Searching for themes – The different codes were then sorted and grouped into potential themes and data relevant to each potential theme was also gathered. Notes on possible overarching themes and subthemes, and their relationships between each other, were also made at this stage.

Phase Four: Reviewing themes - Potential themes were then iteratively checked against the coded extracts (Level 1) followed by the entire data set (Level 2) to establish an overview of the validity of candidate themes. At this stage, all collated extracts for each potential theme were read and, from coherent patterns that emerged, themes were further refined. During this process, any lower level codes that either: a) did not fit within a theme, b) were very similar, or c) were mentioned only once by participants, were either merged or excluded. The analysis also explored how the themes were interrelated and connected back to the overall research.

Phase Five: Defining and naming themes – Once the essence of each theme was deemed to be satisfactorily established and clearly definable, they were mapped out into a structure of superordinate themes and their relevant sub-themes and tertiary themes. In total, three superordinate themes were connected to seven associated sub-themes and nine tertiary themes. Definitions and names were created for each theme to reflect their accurate meaning and portray the aspect of the data intended to be captured.

Phase Six: Producing the report – The results of this analysis are presented in the following section and aim to provide a coherent and concise account of the data. Contextualised in terms of themes and codes and supported by individual quotes, the analysis tells a story of the patterns revealed within participant narratives and is reviewed further within the discussion.
In addition to the six-phase process, two validity criteria were employed:

- **Audit trail:** To ensure transparency a paper trail of participant quotes was kept at each stage of coding and theme development. Maintaining a record in this way, in addition to monitoring the ongoing evolution and interpretation of codes, enabled themes and relationships between them to be tracked. Ideas and suggestions for future implementation strategies were also recorded manually.

- **Trainee reflexivity:** Ongoing reflexivity sought to recognise the personal values, views, thoughts and feelings which invariably will have influenced the Trainee's decision-making processes relating both to the facilitation of focus groups and 1-1 interviews, as well as the understanding and interpretation of transcripts. In achieving this aim, a reflective diary was frequently updated with main points arising from the focus groups and 1-1 interviews, key insights and ideas during the interpretive phase, and thoughts and feelings relating to the overall study.

3.5.10. Ethical approval

Ethical approval was granted by the Psychology Research Ethics Committee at City, University of London (Reference No.: PSYETH (P/L) 15/16 139).

3.6 Results

3.6.1. Participants

Forty-six participants (35 women, 11 men) took part in a face-to-face semi-structured group discussion. Participant information, including age, group location attended, number of sessions completed, weight loss outcome, ethnicity and employment, were extracted from the database and are detailed in Table 3.3a. and 3.3b. All participants within the study sample had commenced a MoreLife programme within the past three years (since October 2013), and were registered with a GP in Oxfordshire. Participant ages ranged from between 18 and 70 years old. The period of time between participants completing the MoreLife programme and their involvement in the current study ranged between 4 and 18 months, and all recruits had attended between 7 and 22 sessions.

Participants who had attended a MoreLife programme since October 2013 and completed prior to March 2016, were contacted to take part in the study. In total 241 individuals were contacted via email to take part in the study. Of those, 79 individuals (33%) indicated an initial interest in participating and met the inclusion criteria. Twenty-three declined to take part due to time constraints (some individuals (n=33) failed to attend a scheduled focus group, without reason and despite giving their consent). Following an email and a phone call attempt, individuals who could no longer be reached were removed from the study sample. Ultimately, 46 individuals participated in the study, attending either a face-to-face, semi-structured focus group or a 1-1 interview.
Data collection was conducted between March and June 2016. All focus groups took place in the evening (6.30pm-8pm) except for one, which took place at lunchtime (Cowley), and were carried out in venues also used for delivery of the MoreLife programme.

In total, nine focus groups were carried out and attended by 40 participants. Following completion of the focus groups, six 1-1 interviews were also conducted with individuals who were unable (e.g. for reasons of geography or availability) or unwilling to join a focus group. A further purpose of carrying out 1-1 interviews was to triangulate findings and seek out themes which may have been 'hidden' by a group effect. Recruitment was concluded at this threshold as no new themes were emerging from participant comments (Strauss & Corbin, 1998).

Locations of the focus groups and 1-1 interviews were chosen based on accessibility and familiarity of venue location for potential participants. Three of the nine focus groups were attended by both the researcher and a scribe, with the remaining focus groups carried out by only the researcher.

Focus groups ranged from between 45 minutes and 1 hour 20 minutes (mean duration=58 minutes).

One-to-one interviews lasted between 13 minutes and 45 minutes (median duration=26 minutes).

Table 3.3a. Focus Group - Participant Profiles

Focus Group Attended	ID	Gender	Age	Ethnicity	Group Attended /Start Date	No. Sessions Attended	Weight (Pre-Post)
Abingdon	Participant 1	F	32	White: British	Abingdon - 02/2015	16/22	-5kgs
	Participant 2	M	50	White: British	Abingdon - 02/2015	22/22	+5kgs
	Participant 3	F	62	White: British	Abingdon - 02/2015	19/22	+2kgs
	Participant 4	F	49	White: British	Abingdon - 02/2015	8/22	-4kgs
	Participant 5	F	49	White: British	Abingdon - 02/2015	20/22	-2kgs
	Participant 6	F	54	White: British	Abingdon - 02/2015	18/22	-7kgs
Banbury	Participant 7	F	48	White: British	Banbury - 10/2013	22/22	-5kgs
	Participant 8	F	45	White: British	Banbury - 11/2014	22/22	-9kgs
	Participant 9	F	43	White: British	Banbury - 10/2013	17/22	-
Bicester	Participant 10	F	55	White: British	Bicester - 08/2015	15/22	-4kgs
	Participant 11	F	36	White: British	Bicester - 08/2015	9/22	-
	Participant 12	F	50	White: British	Bicester - 08/2015	10/22	-3kgs
	Participant 13	F	56	White: British	Bicester - 08/2015	16/22	-12kgs
	Participant 14	F	56	White: British	Bicester - 08/2015	14/22	-10kgs
Cowley 1	Participant 15	F	28	White: British	Cowley - 11/2014	20/22	-29kgs
	Participant 16	M	62	White: British	Cowley - 01/2015	22/22	-3kgs
	Participant 17	M	67	White: British	Cowley -04/2015	20/22	-2kgs
	Participant 18	F	46	White: British	Cowley - 01/2014	22/22	-5kgs
	Participant 19	M	57	White: British	Blackbird Leys - 10/2013	18/22	-5kgs
	Participant 20	F	47	Black: British	Blackbird Leys - 04/2014	20/22	-11kgs
	Participant 21	F	18	Black: British	Blackbird Leys - 04/2014	21/22	-5kgs
	Participant 22	F	50	Black: British	Blackbird Leys - 04/2014	21/22	-1kg
Cowley 2	Participant 23	F	51	White: British	Blackbird Leys - 10/2013	17/22	-2kgs
	Participant 24	M	65	White: British	Abingdon -01/2014	17/22	-2kgs
Cowley 3	Participant 25	F	46	White: British	Cowley - 01/2015	22/22	-3kgs
	Participant 26	F	62	White: British	Cowley - 01/2014	19/22	-2kgs
	Participant 27	F	70	White: British	Summertown - 08/2015	17/22	-11kgs
	Participant 28	F	57	White: British	Cowley - 04/2015	20/22	+5kgs
Didcot	Participant 29	F	61	White: British	Didcot – 05/2014	20/22	-11kgs
	Participant 30	M	57	White: British	Didcot – 05/2014	20/22	-50kgs
	Participant 31	M	51	White: British	Didcot – 11/2014	21/22	-17kgs

Summertown	Participant 32	F	58	White: British	Summertown - 01/2014	17/22	+3kgs
	Participant 33	F	67	White: British	Summertown - 01/2015	17/22	-7kgs
	Participant 34	M	42	White: British	Summertown - 08/2015	14/22	-
	Participant 35	M	55	White: British	Summertown - 08/2015	15/22	-2kgs
Witney	Participant 36	F	48	White: British	Witney - 09/2015	18/22	-
	Participant 37	F	61	White: British	Witney - 09/2015	17/22	-
	Participant 38	F	45	White: British	Witney - 11/2014	22/22	-
	Participant 39	M	61	White: British	Witney - -11/2014	21/22	-
	Participant 40	F	68	White: British	Witney - 04/2015	16/22	-

Table 3.3b. 1-1 Interviews - Participant profiles

ID	Gender	Age	Ethnicity	Group Attended /Date Commenced	No. Sessions Attended	Weight Pre-Post
Participant 41	M	35	White: British	Cowley Group 2 - 04/2014	17/22	-6kgs
Participant 42	F	62	White: British	Cowley Group 2 - 04/2014	17/22	+4kgs
Participant 43	F	69	White: British	Cowley Group 6 - 07/2014	14/22	-2kgs
Participant 44	F	48	White: British	Cowley Group 5 - 04/2015	17/22	-4kgs
Participant 45	F	55	White: British	Summertown Group 4 - 01/2015	7/22	-2kgs
Participant 46	F	57	White: British	Summertown Group 1 - 10/2013	16/22	-2kgs

3.6.2. Data Analysis

An inductive thematic analysis approach (Braun & Clarke, 2006) was adopted in categorising the data, using NVivo 11.0 (QSR International Pty Ltd., 2015) as the data analysis software package. Corresponding with the six phases of thematic analysis, the researcher conducted an initial stage within which all 15 audio recordings were transcribed verbatim, read and re-read, taking notes of early ideas and key concepts during this process. text in the transcripts was coded if it related to participant experiences of weight management or their participation within the MoreLife intervention. Line by line coding was undertaken on all 15 transcripts and initial codes grounded in the data were generated from the first five transcripts. Data relevant to each code was gathered across the remaining transcripts, with any further codes not previously identified also generated. This stage of coding generated a preliminary list of codes (nodes). Codes were then grouped into potential themes and data relevant to each potential theme was also gathered. During this process, any lower level codes that did not fit within a theme, were very similar, or were mentioned only once by participants were either merged or excluded. Potential themes were then iteratively checked against the coded extracts (Level 1) followed by the entire data set (Level 2) to establish an overview of the themes. At this stage, clear definitions and names were created for each theme to form a coding manual. The coding manual contained definitions and names for three superordinate themes, in addition to their associated seven sub-themes and nine tertiary themes. The final stage of the analysis explored how the themes were interrelated and connected back to the overall research (see *Reflexivity*, below).

To ensure transparency throughout the process, a paper trail was kept at each stage of coding and theme development. Maintaining a record in this way enabled key concepts to be tracked, in addition to monitoring the ongoing evolution and interpretation of codes, themes and relationships between them. Ideas and suggestions for future implementation strategies were also recorded manually.

An overall table containing these themes was constructed to form the basis for the coding manual, illustrated in Table 3.4.

Table 3.4. Coding manual

Theme	Sub theme	Tertiary Theme
Alienation	Shame	
	Stigma	
	Avoidance	
Connectedness	Support	Feeling cared about
		Safeness
		Expertise
	Identity	Community
		Relatedness
The Future (Autonomy or Abandonment)	Autonomy	Emotional Sovereignty
		Prioritising Self
	Abandonment	Collusion
		Loss

3.7 Themes

The following analysis explored the experiences of participants on a psychologically-based weight management programme. Based on descriptions of their experiences, three superordinate themes emerged, namely: 1) *Alienation* 2) *Connectedness*, and 3) *The Future*. Each theme reflected a stage within which the individual perceived themselves to be on their weight loss journey. These themes, their subthemes and tertiary themes, served to categorise the variability in weight management experiences and engagement over time. The discussion offered reflection into possible conditions under which transformative change in any direction was likely to occur. In the following sections, 'most' relates to statements made from over half (n>23) of the participant sample which related to a particular theme. Similarly, 'some' refers to statements made from five or more participants (i.e. n≥5 participants). Participant numbers were provided to differentiate illustrative quotes and to ensure individual identities were non-identifiable. All quotes included within the following section were retrieved from focus group transcripts except where '1-1' was specified, which indicated a quote taken from a 1-1 interview transcript.

3.7.1. Alienation

Alienation represented the first superordinate theme and was underpinned by subthemes of *shame*, *stigma* and *avoidance*. Predominantly associated with pre-programme affect, each subtheme was characterised as follows:

3.7.1.1. Shame

Among participants, shame was characterised by high levels of internalised self-blame in instances where weight loss endeavours were perceived to have failed. Many individuals portrayed a narrative

of failure in describing how "*it is my own fault*" (P23, female, aged 51), that "*I just feel like it's been a failure really, I failed. I should have done more to help myself*" (P43, female, aged 69) and internalised this as having "*failed as a person*" (P36, female, aged 48). Failure therefore connected strongly with a sense of shame, and ultimately alienation, in the context of their perceived worthiness as an individual. For many participants, perceptions of failure arising within a weight loss context were globalised to the whole individual, as one individual depicted:

> "*I look at myself and I have, for the first time in my life, told myself I'm a failure. And I keep trying to tell myself, 'you're not a failure [name] you're not a failure'. But I'm a failure. I cannot do this. I don't know how to do this. I don't know how to do this*"
>
> - P33, female, aged 67

Many participants exhibited high levels of self-shame and disgust in relation to their body image and appearance:

> "*I don't like looking at myself in the mirror. I've got a big tummy, I can't buy clothes off the peg, I have a job trying to bend over and tie my own shoelaces*" – P39, male, aged 61

Failure was linked to critical self-talk relating to unwanted patterns of behaviour and participants described being "*cross with myself for that*" (P43, female, aged 69) and "*so annoyed with myself when I get to weigh and I think, 'you stupid, stupid woman. Why did you do that?'*" (P33, female, aged 67).

Shame appeared to manifest through self-comparison with others, in line with perceived social norms, and some participants describe a sense of wanting "*to be able to eat normally like other people*" (P28, female, aged 57), and to "*live normally*" (P29, female, aged 61). Participants experienced a deep sense of shame in failing to meet perceived social norms and expectations relating to their weight and body image:

> "*…it's drummed into you, isn't it? All these social and external influences say, 'you're a failure because you're not this perfect vision.' And I used to think that was complete bullshit, but it's really not*" – P9, female, aged 43

Some participants experienced feeling worn down by the negative psychological and emotional

consequences of harsh self-talk:

> *"…beating myself up all of the time was getting very wearing – getting really wearing, thinking, 'here we go again'"* - P46, female, aged 57 (1-1)

Ultimately, many individuals experienced their weight journey as an ongoing struggle, for which they were not well equipped. In this way shame and ultimately alienation were reflected by a sense of resignation in their weight journey:

> *"We're going to struggle with this forever really, I think. I can't see [another situation]. When you say, 'what is success like?' It's going to be a battle, it will always be a battle"*
>
> – P28, female, aged 57

3.7.1.2. Stigma

Often coinciding with self-shame, some participants experienced weight-related stigma and prejudice in daily life as a consequence of being overweight, which subsequently led to alienation, as one individual described:

> *"I think when you're fat, people think you're stupid and bypass you a lot. It's almost like being in a wheelchair. It's like you're a middle aged, overweight person. Do you know what I mean? And suddenly, when you're looking better, you get included in a lot more things."*
>
> – P45, female, aged 55 (1-1)

For this individual, the physical demands of living with obesity was experienced alongside psychological demands in addressing the perceptions and expectations of others. From this standpoint, a clear gap existed between the externally-crafted image of the participant and the emotionally taxing reality of managing judgement from others:

> *"Sometimes you might bump into somebody with a kid and the kid might say, 'oh you're quite big!' Because they [kids] have no idea, they just say it as it comes. And I say 'so don't forget, don't eat all the pies because you'll end up as big as me' and you're thinking, 'it really hurts to have to say that'. And I don't want to be that person anymore"*
>
> - P45, female, aged 55 (1-1)

A lack of understanding among others was also perceived with respect to the psychological impact of obesity:

> "…it's interesting that the longer you spend with people, the more they fail to perceive your obesity. They think of you as, 'that's just [name].' They don't see me as somebody who feels coy about getting on a bus if it's particularly full, you know, will there be a seat there? You have to manage all those sorts of things that go on in your head all the time. For somebody who's a normal size, who's normally fit and keen, those things never happen. It doesn't happen in other people's heads" - P45, female, aged 55 (1-1)

As the participant further explained, the attritional psychological effects of stigma were compounded, resulting in exhaustion and bringing about challenges in coping:

> "But when somebody starts to focus on it [your weight], that massive burden of dealing with that all the time is laid open, and you have to start coping with it in a more vigorous way than you do normally, and that becomes very mentally debilitating and exhausting"
>
> – P45, female, aged 55 (1-1)

For others, experiencing stigma triggered feelings of avoidance, as one individual underscored:

> "…when you're walking up the street I hate people taking the mick, saying 'look at that'. Take the piss in other words, and laugh at you. I hate that. And when [that happens] I just feel like I just want to run away, or crawl, and hide" - P23, female, aged 51

3.7.1.3. Avoidance

Participants experienced alienation through avoidance of valued behaviours and emotions. Many individuals experienced physical pain as a consequence of obesity, making it "*increasingly difficult on my knees and my hips, because obviously I'm carrying the weight*" (P43, female, aged 69 - 1-1). Physical limitation linked to excess weight shaped strong perceptions relating to health behaviour and its impact on longevity, triggering an urgency among many to confront the issue:

"I think it gets worse as you get older, doesn't it? If you're a chubby teenager, you don't necessarily have that many health issues, maybe. You come last in the 800 metres. But then as you get to fifty-something, it starts to have a real impact on how long I'm going to live."

– P4, female, aged 49

Paradoxically, whilst acknowledging both the reality of physical pain and the ways in which it could be alleviated, physical pain and injury were a predeterminant of avoidance among some individuals and, more specifically, associated with emotional avoidance:

"…all through my life I've been large, obese, whatever you want to call it. It's not held me back until recently with my osteoarthritis. You get depressed, you eat more, you stay inside, and you do less" – P5, female, aged 49

Whilst physical limitations restricted engagement in meaningful activities for many, for others avoidance largely stemmed from psychological, rather than physical constraints:

"Having a mental health condition, if you start to withdraw, that's part of it. The symptoms for me, I withdraw. So I'm not going to reach out" – P4, female, aged 49

Patterns of avoidance were also triggered by episodes of weight relapse. The negative consequences of failed weight loss attempts took a toll on physical, emotional and mental health which, in turn, brought about feelings of frustration and ultimately helplessness, as one individual described:

"…the consequences of not being able to continue this, are more than just my weight going back on, but it's actually making me physically ill and mentally ill because I'm getting so depressed. I know what I need to do, and I know what I want to do, but trying to get over that hurdle and doing it – particularly with some of my issues this year – has just been beyond me" – P19, male, aged 57

Similarly, for many participants avoidance behaviours trigger a cycle of shame and avoidance which is fuelled, compounded and reinforced by the individual's perceived violation of acceptable norms relating to weight and body image. This manifests in disengagement from otherwise meaningful and valued pursuits, such as cycling or going out with friends, for example, as the following account highlighted:

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"You know, if I eat badly I don't even want to go out with my friends. If I get an invite to go out I don't want to go out because I feel fat, or I won't want to go and exercise even though I really need to because I think, 'oh, I'm too fat to do that', which is stupid because presumably if you were really fat that's when you really should be exercising. But in my head it's completely the opposite. When I'm slim, I'm happy to go out and exercise and cycle. As soon as I've put weight on, I'm not cycling anymore because I think everyone's going to say, 'oh look at her on the bike, haha, isn't that ridiculous?' You know it's stupid but these are the things that are in your head" – P15, female, aged 28

Avoidance of such meaningful activities was also experienced when confronted with difficult emotions, as one participant further described:

"And then before you know what you've done, you feel guilty, and then you've put on half a stone, and then you feel even more guilty, and because you feel guilty, you don't go to the gym or something like that, you go and get a bag of crisps out the cupboard"

– P9, female, aged 43

Emotional avoidance appeared to be deeply interlinked with feelings of low self-worth among many participants, as the following example underscored:

"…sometimes I don't want to leave the house and some days, to hide me from crying inside, I literally walk in and say 'greetings' to try and hide it. But inside I feel like shit. I'm sorry, I don't say that word, but I do" – P23, female, aged 51

As the above example indicated, avoidance behaviours were characterised by a tendency to 'hide'. Hiding was seen to manifest both in an emotional sense (e.g. *"[I] say 'greetings' to try and hide [from crying inside]"* – P23, female, aged 51) and a physical sense (e.g. *"you stay inside, you eat more and you do less"* – P5, female, aged 49). In instances where patterns of avoidance were evident, weight loss endeavours may have been motivated less by health reasons than a desire to reduce internal shame and, subsequently, achieving a sense of worthiness and acceptance. This was exemplified by the following account in which the interpretation of becoming healthier was couched within a context of not wanting to "hide":

"If I could be healthier then that's really what I want, so I can go and enjoy life, so I don't have to hide behind people" - P1, female, aged 32

Such instances indicated how limitations to engagement in healthful behaviours, like *"cycling or going out with friends"* (P15, female, aged 28) were predominantly determined by emotional factors rather than by restrictions in physical health. As one participant further demonstrated, avoidance of valued activities such as *"doing good for other people"* occurred because *"now I fear I'll be rejected so I look at all of these voluntary opportunities and I think, 'no, no, no, can't do that"*, despite awareness of the corresponding influence on food behaviours, and recognition that *"if I were doing these things [volunteer opportunities] then I wouldn't feel the need to overeat as much"* (P25, female, aged 46). This experience offered a glance into the powerful and, in this instance, paralysing nature of low self-image and self-esteem in commanding both patterns of avoidance and food behaviours. Further emphasising this notion, others also experienced patterns of avoidance and their damaging consequences, both psychological and emotional:

"…there's so much that I don't do that I used to that I really used to enjoy doing. And that ends up making you feel depressed, you feel that you're spiralling, you don't like yourself, and it just goes down and down and down" - P5, female, aged 49

Many participants relayed their experience of emotional avoidance through the context of *"self-medicating"* with food, and attribute responses to *"stress, disappointment joy, happiness and rewards"* as *"all coming through food"* (P41, male, aged 35 - 1-1). Others reiterated how *"food has very much been based around an emotional thing"*, and described how *"when I'm feeling down that's what I eat, and it helps a lot"* (P31, male, aged 51), *"eating [the difficult feelings] away"* (P23, female, aged 51), *"so chocolate is my friend"* (P44, female, aged 48 - 1-1). Emotional avoidance appeared to be reinforced by cultural norms connecting to a sense of 'Britishness'. Salience of this identity served to inhibit the expression and sharing of emotions, as the following participant observed:

"I think it might have been because actually, like I said before, talking about our feelings. We're British – we don't really do that. So, our relationship with food and how we felt about it was like 'oomph' [a sense of heaviness or intensity]. From that aspect it wasn't really a diet was it, it was just a different way of thinking about the emotional crutches that we use to deal with life" – P33, female, aged 67

3.7.2. Connectedness

The MoreLife programme represented a space within which individuals could transition from a place of alienation to one of connectedness. In interpreting the findings, the move to connectedness was characterised by two main subthemes: 1) *Support* (represented by tertiary themes of *feeling cared about, safeness and expertise* and, 2) *Identity* (represented by tertiary themes of *community* and *relatedness)*.

3.7.2.1. Support

The notion of support emerged as a vital ingredient for participants in their experience of connectedness, whilst on the programme. Support was engendered by three tertiary themes: *feeling cared about*, *safeness* and *expertise*:

3.7.2.2. Feeling cared about

Feeling cared about was described by many participants as fundamental to the experience of receiving support. Some participants experienced feeling cared about through the initial point of contact with MoreLife which, given the often vulnerable nature of individuals commencing the process, was key to providing reassurance, as one participant underscored:

> *"…the first interaction I had with them for the initial 'onboarding' call that they do. It was really good because I was in quite a state at that stage with my weight – quite panicked about what the sessions would be like. And they were really nice, really reassuring. You know, made me feel like I was starting the right process. It was good"* – P15, female, aged 28

Support during the referral process was experienced differently and moved some individuals toward feeling a sense of connectedness, whilst moving others away. Inclusion criteria for age, for instance, was a variable which led participants to feel supported through the process:

> *"Actually one other thing I would like to say from my advanced age, was that I was surprised and pleased that there didn't seem to be an age limit to being accepted. Because I'm 73 and I was quite surprised that they hadn't written me off. And that, I think, is quite important"*
> – P27, female, aged 70

The feeling of being supported during the referral process was not the same for everyone, however, and some voiced despondency with the programme exclusion criteria in needing to be "*seriously*

obese before you can get help" and that it was "*seriously distressing to feel that I had to get that far out of control*" (P15, female, aged 28). In commenting that "*we shouldn't have to wait to get to crisis point before we get any kind of help*" (P19, male, aged 57), therefore, some participants conveyed a felt sense of lacking support. In accessing the service, venue quality also played a key role in the way participants experienced support and, as one individual articulated "*there's something about having a nice venue to make you feel appreciated - to feel valued*" (P4, female, aged 49).

In a variety of ways, follow up protocols also intersected with a sense of feeling cared about. Some individuals, for example, described feeling supported when the facilitator demonstrated care and concern after missing a session:

> "*It was nice if you'd missed [a session], he'd ring you and ask how everything's going. How you were feeling. If there was any down points or anything like that. You had a sense that you were really supported*" – P38, female, aged 45

Likewise, the significance of follow up to the experience of feeling cared about was also visible in instances where it was perceived to have been lacking (e.g. following a missed session):

> "*It would be nice for them to actually say, 'sorry you weren't there, hope everything is okay? Is it anything to do with the group?' Or something like that when somebody isn't there*"
> – P1, female, aged 32

The experience of follow up was not the same for everyone, however, and for some participants, feeling cared about was viewed from the standpoint of a lack of engagement and failure to elicit feedback during the programme:

> "*I didn't really feel like she wanted to know enough about why I didn't feel it was working*"
> – P45, female, aged 55 (1-1)

For many participants, feeling cared about was reflected in the perceived level of personalisation offered within the programme. Some experienced a sense of being cared about in having time available to work through issues at an individual level:

"I thought that if I could have that more, so if we could have individual times within the meetings, where you would be guaranteed even just 10 or 15 minutes maybe, to really get to the nitty gritty of what you wanted to talk about, could be very useful somewhere along the line. I found that was really good" – P28, female, aged 57

Similarly, participants experienced a sense of feeling cared about from the standpoint of understanding and tailoring to individual needs:

"That's the kind of help that I needed, was someone who'd say, 'this is what's best for you, I'm going to go and do that with you, you're not on your own. But, of course, that's an enormous ask of any system, to say, 'can you 1-1 with me in order to support me doing those things'" – P45, female, aged 55 (1-1)

Other participants further acknowledged the additional capacity required for provision of individualised support:

"And that's asking a lot from a programme that's helping a lot of people overall. You know, how do you make it bespoke, I don't know, I don't have that answer" – P32, female, aged 58

By contrast, expectations fell short among many participants who were seeking to "*dig a bit deeper*" (P31, male, aged 51) and looking for "*either more individual help or an alternative way*" (P12, female, aged 50) with a view to learning "*what makes you tick and understanding the why, really why, I do it as an individual*" (P9, female, aged 43). Consequently, participants experienced a sense that "*[the issues] weren't addressed*" (P3, female, aged 62). Where individual and differentiating pathologies relating to food were perceived to have been overlooked, participants experienced a lack of personalisation and sought deeper self-understanding and tools to provide support in their ongoing weight journey, as the following individual summarised:

"How do you know your audience well enough, to give them clues along the way? Like a game of Cluedo. Everyone's going to have a different set of murder weapons and murderers. How do we get to the library with the wrench? How do we do that?" – P32, female, aged 58

Feeling cared about was further represented through a culture of non-judgement, both among group members and facilitator:

"…it was nice to be in a room full of people that just didn't judge you, because they didn't have any preconceptions about you" – P9, female, aged 43

Participants talked about their experience of non-judgement in terms of feeling accepted, and contrasted this with feelings of judgement experienced during previous weight loss attempts:

"And on the Weight Watchers group I went on I found it quite judgemental. It wasn't like that at all with MoreLife, there was sometimes a kind of acceptance that sometimes you lose, sometimes you don't" – P44, female, aged 48 (1-1)

For many, the experience of feeling cared about whilst on the programme was also connected strongly with a motive of empathy demonstrated by the facilitator:

P2*: "The second facilitator that we had…I found her much better, and much more empathetic. Is that a real word?*

[Everyone] Yes [agreeing unanimously]

P4*: Empathy. That's what we all want, I suppose.*

P2*: Yes*

- P2, male, aged 50; P4, female, aged 49

The importance of empathy to the experience of feeling cared about was also exemplified in instances where it was perceived to have been lacking:

"I've sat there a few times and I did actually think to myself, 'you haven't got a clue'. I don't believe you understand how we feel. I just, perhaps I was wrong - perhaps I was just being too negative" – P1, female, aged 32

Given the personal nature of working with emotional aspects of their weight participants pointed to empathy as being a key currency in the experience of feeling cared about, supported and, ultimately, connected:

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"And I recognise it's an emotional thing up here [in my head], and to actually be supported through that you need to have more of a connection with the person that's leading you, I think. That's what I needed" – P4, female, aged 49

Ultimately, participants acknowledged the skill and challenge of fostering empathy within a context in which the needs of the individual often competed with those of the group:

"I think it's this balance between being able to get a programme across but also being very empathetic and sympathetic to what's going on in the room…it's a very tall order and really I think quite a few trained psychologists would find it difficult" – P26, female, aged 62

3.7.2.3. *Safeness*

A feeling of safeness within the group appeared to be an important foundation to the experience of support and connectedness. More than safety within a physical sense, safeness was characterised by an emotional sense of safety. Specifically, a group environment experienced by participants as being emotionally safe served to cultivate conditions of openness and trust which, in turn, led to a sense of feeling supported. The significance of creating a culture of safeness was reflected in descriptions of the group context as providing a legitimate space to open up to otherwise unexplored feelings:

"But yeah, we were having lots of quite deep discussions about it. Really delving into how you feel about things. And that's quite alien in this sort of environment, in front of people you don't really know. But by then we kind of just knew each other, didn't we?"

– P9, female, aged 43

The importance of establishing safeness within the group was also observed in instances where it was perceived to have been lacking. Some participants, for instance, described challenges in opening up to other group members:

"And also, as you say, initially it's very difficult when you're asked to open up in front of a group of strangers. You're not going to, are you? Well, I wouldn't anyway. So you need to get to know people a bit more" – P6, female, aged 54

Participants further alluded to creating a culture in the group and the importance of having "*the right sort of atmosphere with whoever is leading, whatever programme it is that you're doing*" (P26,

female, aged 62). The significance of the facilitator in establishing a safe environment conducive to openness was emphasised by the sense of vulnerability some group members experienced when asking questions:

> "*It's like being at school. You sit there and you're scared to put your hand up. But the chances are nearly 50% of the class didn't understand it*" – P39, male, aged 61

The role of safety within the group culture was further underscored by the importance of participant interaction to collective understanding. Levels of safety experienced within the group therefore either served to impede or promote the opportunity for relatedness, affiliative support and connectedness among its members:

> "*…we were all in the same boat, and when somebody would ask a question you'd hear little sighs of relief that, 'Ooh, somebody's actually got the courage to ask what 'does this mean?''*"
> – P38, female, aged 45

Some participants experienced a desire to share difficult thoughts or emotions within the group, like "*maybe I would have liked to talk more about it, and the reasons why*" (P46, female, aged 57 – 1-1), though chose to withdraw to avoid potential embarrassment:

> "*The other thing is that if you are really emotional about something, you don't really want to say it in the middle of the group where you might burst into tears and feel a right idiot [laughs]! Well no, because we're all sympathetic, but at the same time when it's you, you don't want to be doing that*" – P12, female, aged 50

Some participants experienced safeness from the perspective of having confidence in the established evidence base provided by the programme:

> "*I think what I liked most about the MoreLife programme was knowing that it was evidence based, it gave me the confidence in it, which I probably wouldn't have had. 'Try this and we think it will work!' is not enough*" – P25, female, aged 46

Participants described the nature of consistency and continuity in building a trusting environment in which group members felt open to participate and share their experiences. For some participants,

changes in facilitator during the programme undermined a sense of feeling supported:

> "*To have to go right back to the beginning, and say, 'well, I've got this, and this has happened'. It's quite difficult. So there's something about continuity, I think*"
>
> – P4, female, aged 49

Ultimately, a lack of continuity in facilitators left some participants experiencing disconnection and a sense that "*they couldn't possibly get to know us*" (P27, female, aged 70). The significance of continuity was mirrored in participant attendance which similarly affected conditions of openness and trust. As one participant conveyed, willingness to share experiences and connect meaningfully with other group members was contingent upon a culture of consistency and continuity within the group:

> "*As I say different people drifted in and out and I didn't feel like I wanted to bear my soul to these people I might not see again…because it was deeply personal. If I had got to know people better then maybe I could have felt like I could have said it more*"
>
> – P46, female, aged 57 (1-1)

Many participants experienced support from the perspective of group size, which had a clear influence on levels of engagement. For many, support was hindered when group numbers were too large, and the experience of a big group was described as being "*overwhelming*" (P2, male, aged 50; P4, female, aged 49), "*off-putting*" (P34, female, aged 42), and "*unworkable*" (P13, female, aged 50). As a result, some participants experienced the group as having failed to "*gel properly*" (P13, female, aged 50), which characterised a move away from feeling a sense of connectedness. Reflecting this, large group numbers were felt to hinder some participants in sharing their experiences:

> "*…when I said that I wished there had been more sharing, the actual format of how the group was taken, didn't encourage sharing. We started off with a very, very large group*"
>
> – P26, female, aged 62

Subsequently many participants felt their experience of support could have been optimised by having a more "*intimate*" (P3, female, aged 62) group setting, with suggestions for group size ranging from between "*four or five*" (P46, female, aged 57 – 1-1) and "*no more than 10*" (P3, female,

aged 62). For others, dropout was disruptive to the experience of group bonding and, in turn, levels of connectedness:

> *"There was a bit of that camaraderie in the session that I think was useful, but again, quite a lot of the time there were people that didn't turn up in quite a few sessions, so sometimes quite difficult to get that cohesion"* – P31, male, aged 51

Dropout among participants has a significant influence on the experience of those attending the group. Some participants experienced dropout of group members as being "*tremendously demoralising*" (P25, female, aged 46), "*disappointing*" (P44, female, aged 48 - 1-1), and "*demotivational*" (P19, male, aged 57). Whilst some carried the expectation of other group members dropping out ("*it usually happens a lot*" - P44, female, aged 48 - 1-1) high dropout rates impact negatively on feelings of safety and, for one individual, was seen as a portent of their own inevitable failure down the road:

> *"Somehow it felt to me as if this was an indication that the whole journey that I was making was doomed, that we weren't going to stay the course, that people were going to drop out and that I was going to be next"* – P25, female, aged 46

3.7.2.4. *Expertise*

Many participants talked about their experiences through the lens of facilitator expertise and described the importance of the programme facilitator "*knowing their stuff*" (P13, female, aged 50) and being "*fluent with what they're doing*" (P10, female, aged 55). Many participants derived a sense of feeling supported, and ultimately connected through having confidence in their level of expertise:

> *"She was very good. She knew what she was talking about. You could ask her a question and she would answer it. She would explain the theory behind it and everything"*
>
> – P12, female, aged 50

Participants experienced expertise in different ways and traits engendered by the facilitator also played a key role in this respect. For some, expertise extended beyond a listening ear and was about being a "*professional that knows what they're talking about, rather than your friend*" (P11, female, aged 36). Others experienced facilitator expertise from the perspective of being nurturing and

offering positive reinforcement, as one participant described:

> "*And I think support – continuous support – is very important, and in the start vital. Positive support, encouraging support, congratulatory support – never punitive*"
>
> – P26, female, aged 62

For some, a nurturing approach extended beyond being "*encouraging*" and "*congratulatory*", and was experienced through the facilitator being "*gentle and firm*", "*giving you permission to do it*" (P32, female, aged 58), and "*walking me through it*" (P12, female, aged 50). Adopting a nurturing approach cultivated a sense of confidence among individual group members, and one participant reflected on "*wanting to be nurtured so that I would then feel more relaxed*" (P4, female, aged 49). The significance of a nurturing approach to the experience of facilitator expertise and effectiveness was further displayed during instances where it was perceived to have been lacking, as one participant described:

> "*So there was no guiding, nurturing or pointing. And I think we need to look to ourselves, but at the same time we need that drawn out of us, and I don't feel that was what happened*"
>
> – P5, female, aged 49

A supportive approach was also core to the experience of facilitator expertise and their perceived level of effectiveness, and for some participants this ultimately defined their experience over and above other aspects of the programme:

> "One thing that was really important to me was the individuals that were delivering the programme. And one of them in particular I thought was really brilliant at being supportive. And the identical programme delivered by somebody who was less supportive and less sensitive wouldn't have worked very well. So I think the staff are key" – P25, female, aged 46

Expertise in group management greatly influenced the experience of participants and many individuals talked about feeling frustrated during instances where group dynamics were not perceived to have been managed effectively:

> "*The group dynamics weren't always terribly good. There was one person who quite dominated the group, and that I found quite difficult*" – P29, female, aged 61

Many participants further described how a lack of focus or mismanagement of group dynamics led sessions to "*go off topic*" (P31, male, aged 51), "*getting really away from the point*" (P28, female, aged 57) and "*completely off track*" (P36, female, aged 48), with the resulting disruption causing participants to feel unsupported. Some participants conveyed the belief that "*to lead these sessions is actually very difficult*" (P26, female, aged 62) and underscored the importance of facilitator expertise through acknowledgement of the inherent challenges faced in supporting and leading the group effectively:

> "*I think it's very tricky to manage the group dynamics and that requires quite a gift to encourage people to contribute, but only to the extent that they feel comfortable, to encourage people to talk to each other, but not to run rough shod over other people. To know when people just want to sit back and hear some piece of information – it's really hard. Very, very important*" – P25, female, aged 46

Many participants experienced expertise through the lens of communication from, and with, the facilitator. For some participants, clarity, speed of delivery and a straightforward communication style were central to aiding learning:

> "*I'm in my seventies. I find it increasingly difficult to concentrate, or have the will to learn about it. And it would just be nice to have it filtered out, as it were. You know like on eBay when you filter out – so you actually get to the core. And that's what I found*"
> – P39, male, aged 61

From a standpoint of structure, clarity and consistency, facilitator communication within the group manifested in participants experiencing either a move away from or toward feeling supported and, ultimately, connected. Participant accounts reflected the significance of engendering these communication traits early on within the programme as the group culture was being established:

> "*There was no proper introduction as to why we were there, how the course was going to be run, and how we were going to be included and participate, so you weren't clear about exactly what was going to be coming*" – P3, female, aged 62

One participant, in citing a lack of structure, described how "*it [the programme] didn't flow*", leaving her feeling "*a bit bewildered*" (P5, female, aged 49). Similarly, some participants experienced lack of clarity and consistency in facilitator communication:

> "*...if it's very fast and there's a lot of information...I think there's something about, maybe at the beginning, actually it going a little bit slower, and being a bit more about us getting to know each other and feeling more relaxed*" – P4, female, aged 49

Some participants talked about their experience of being prepared for a psychological approach prior to commencing the programme, but needing time to digest new ideas. From this perspective, participants relied upon the strength of the facilitator to communicate core psychological concepts with patience and consistency:

> "*And if you haven't really been to any sort of psych health mental 'thing', you've got to get your brain thinking in a certain way. And if you're a practical person some of this stuff is very 'hmm'. You've got to have time to digest it and the person needs to be able to deliver that and keep enforcing it*" – P14, female, aged 56

For others, communication was experienced in contrasting levels of sensitivity and ultimately received as a series of inconsistent and conflicting messages:

> "*Because the first message from the woman that's running the course is, 'be in touch with your feelings, be in touch with what your head is doing.' And the message I'm getting from the lad who did the 'keep fit' and the dietician is, 'just listen to what I've got to say because I just want to tell you this and then go.' So I'm caught in between these two, trying to balance it out*" – P45, female, aged 55 (1-1)

3.7.2.5. Identity

The notion of identity emerged as a key theme for participants in their experience of connectedness whilst on the programme. The role of identity was further underpinned by two tertiary themes of *community* and *relatedness*:

3.7.2.6. *Community*

Participants described the bonds formed with other group members from the standpoint of

community and how "*more than just a diet, it was good to be with a group of people*" (P42, female, aged 62 - 1-1). For many individuals affiliative support from and to other group members provided a valued source of safety and connection:

> "*The MoreLife programme though is all about collective support, isn't it? I think it's a good idea. I like the group support, it's nice. Everyone's got to know each other, most of us get on together and it's nice*" – P13, female, aged 50

Many individuals talked about how "*the group support where we talk to each other has been really helpful, and that's a really big thing out of it*" (P5, female, aged 49) and how members had "*become quite supportive of each other*" (P27, female, aged 70). Indeed, for some participants a sense of community transcended the programme and value placed on membership of the group superseded all other aspects. In this way, ongoing attendance was determined by a commitment to the group, rather than to the programme itself:

> "*But I didn't come [back each week] because of the programme, I'm afraid. It was more to see the people I knew, because I enjoyed meeting them*" – P6, female, aged 54

Further illustrating the powerful sense of community and closeness experienced within the group among many participants, one individual described feeling "*quite privileged to be on the course. And the time that we were together - it was almost like a family. We all became very close*" (P36, female, aged 48).

3.7.2.7. *Relatedness*

Relating with others had a significant influence on participant experience, and many individuals portrayed a profound sense of support gained through identifying and sharing experiences with group members:

> "*I think there's also something – you can't really explain it – of going into a room where everybody is there that is like minded and facing the same problems that you have because of your weight issue, you don't have to explain it, and you don't have to justify it in any way. They already know how you feel. They already know your loneliness. They already know your pain*" – P36, female, aged 48

Participants described feeling supported by others who were "*in the same boat*" (P44, female, aged 48 - 1-1; P38, female, aged 45) with "*people who understand what it's like*" (P8, female, aged 45) and found input from other group members to be "*tremendously helpful*" (P28, female, aged 57). The experience of relating with others further served to emphasise the deep sense of challenge faced by some participants in everyday life and the safe harbour represented by the group, as previously discussed. Participants alluded to being "*all in the same battle*" (P32, female, aged 58), and "*sharing the same struggles*" (P7, female, aged 48) with "*like minded*" people that "*know your loneliness*" (P36, female, aged 48). For others, relating with group members helped to normalise and validate feelings and experiences which, until then, had been carried alone, as one participant asserted:

> "*I liked talking in a group of people and realising that actually I wasn't a little bit mad, because everybody had very similar experiences. That was the first time I'd ever sat down and talked openly about things like that. So I liked that*" – P9, female, aged 43

Participants articulated a sense of importance in sharing experiences and the positivity felt through relating with others in the group with whom they identified. This lay in contrast with challenges in relation to family members who had "*no idea what I go through in trying to lose weight*" (P1, female, aged 32) and participants pointed to a general lacking in opportunity to do so in day to day life, as one individual described:

> "*And you don't usually have those avenues in your life to talk about [feelings]. I was never forced to talk, or anything. Or sometimes people would sit there and cry, and there was no sort of shame or judgement to that*" – P36, female, aged 48

The alienating sense of isolation experienced in daily life appeared to dissipate in the context of a group situation in which members related with one another. Relatedness among group members had a cathartic and bonding effect, forging a sense of trust and offering a gateway for individuals to open up to their personal experience and work through their own issues:

> "*And it makes you feel like you're not the only one. Somebody else is there, exactly the same, feeling or acting the same way. That made it easier for everyone to open up and talk about it, and then you learn how to deal with it*" – P37, female, aged 61

Ultimately, relatedness brought about a deep sense of support and connection among group members who identified with one another and their challenges, experienced in a context of non-judgement and acceptance within which the universal nature of personal issues was addressed:

> "*But you're learning that everybody's got a similar sort of problem, or at least some of them have, and that is very encouraging, isn't it? Reassuring that you're not there alone, and also people are dealing with very similar problems. And they're always very complicated because it would often be to do with their lives, their jobs, their family problems and how they've dealt with it can be a help to others*" – P35, male, aged 55

The significance of sharing experiences was further illustrated by participants in describing that "*almost invariably, when you get a bunch of people that are disadvantaged in a similar way, they're going to want to share those experiences*" (P45, female, aged 55 - 1-1). Many participants expressed feelings that "*what was missing was the opportunity for us to actually share our experience*" and in terms of "*wanting to hear other people's experience, because I personally find that quite stimulating and encouraging*" (P26, female, aged 62). In instances where sharing experiences and, ultimately, relatedness had not been rooted within the cultural context of the group, these participants experienced a move away from feeling supported and connected:

> "*…the idea with a group, is that it's a shared experience, isn't it? And being a support for each other. So I suppose if you don't feel that, it's not great really*" - P4, female, aged 49

The importance of establishing a sense of connection as a prerequisite to sharing personal experiences - both with other group members and the facilitator - was further described by one participant:

> "*I like having that type of relationship where I feel it's trusting and open, and you're experiencing something together - which I suppose you do get in a group to a certain extent - but in the early stages it could have been more of a connection*" – P4, female, aged 49

Some participants cited relatedness and understanding – a sense of *me too* – as being necessary and important pre-conditions for empathy. Relatedness and understanding demonstrated by the facilitator encouraged some participants to be more open to sharing their experiences:

"But she did seem to know everybody, and people really did relate to her. They could just talk to her about anything, I felt. I was just very comfortable with her" – P10, female, aged 55

Participants further underscored the fundamental nature of empathy as characterised by a capacity to relate to and understand, at a deep level, the hardship and struggle experienced in having weight issues:

"I wanted somebody to say, 'I know you're suffering', rather than 'just listen to this and it will all be okay.' And there is a definite difference between the two. One's saying, 'I want to engage with you', and the other one's saying, 'just sit and listen'"

– P45, female, aged 55 (1-1)

Where relatedness and understanding were perceived to have been lacking, participants sought ways to close the distance between themselves and the facilitator by inviting them to *"come and walk in my shoes for a while and just see'"* (P4, female, aged 49). Many participants, for example, portrayed this through the lens of body size and expressed a desire for the facilitator to have been through similar weight challenges themselves:

"There was part of me who wished that our leader had been fat – very fat – at some point in her life. I just wonder how much someone who has not experienced pretty extreme overweight can really relate to people who are suffering from it. But if you know somebody's been through it themselves, then they do know" - P26, female, aged 62

Once more, the notion that some participants would have *"loved it if the person delivering it was fat"* (P4, female, aged 49) ties closely to a search for shared identity, relatedness and understanding, and the importance of *"feeling as though somebody 'gets you'"* (P3, female, aged 62). Identifying with the emotional, psychological, and physical challenges faced on a day-to-day basis, became a central ingredient of empathy and, ultimately, to feeling supported and connected. Otherwise, as one participant put it, *"how would she know?"* (P42, female, aged 62 - 1-1). The importance of relatedness and understanding was emphasised by the cultural differences between group members:

P13*: "And that brings us exactly to the point we made at the very beginning. That all of us in the group, have different lives, different responsibilities, different difficulties. And you can't*

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relate to them. So you might have a group of people who were younger with children, and a group of older people who haven't got children who aren't remotely interested in the fact that they've got children. You know, I don't know how you get around that, but it is quite important to have a group that gels with similar [interrupted]"

P11*: "Needs?"*

P13*: "Needs. Yeah, needs. Good word"*

- P13, female, aged 56; P11, female, aged 36

3.7.3. The Future

Participants contemplated their experiences following the programme and described their journey through the lens of either autonomy (self-reliance) or abandonment.

3.7.3.1. Autonomy (Self-reliance)

Many participants described how their experiences on the programme had led to a sense of self-reliance and, reflecting this, pointed to tools adopted from the programme that were being implemented in day-to-day living. Moves toward autonomy were characterised by tertiary themes of *emotional sovereignty* and *putting oneself first*:

3.7.3.2. *Emotional Sovereignty*

Participants reported varying experiences in the context of identifying and meeting their own emotional needs, which appeared to influence their capacity for a move toward autonomy. Sustainable health behaviours relating to food remained elusive for participants despite knowing 'what to do'. In addressing the nutritional aspects of weight loss many participants described how "*we all know exactly what we've got to do*" (P1, female, aged 32) and, as one individual affirmed following long-running experience with weight loss endeavours, that "*I totally understand what I'm meant to do with food by now, I know what I should be doing, but somehow something is missing there*" (P15, female, aged 28). Indeed, level of knowledge on dieting methods was such that, as one participant declared, "*I could write a book*" (P4, female, aged 49). Rather than deriving a sense of autonomy and control from this depth of experience and knowledge, however, many participants share a unified sense of frustration and helplessness in knowing both what to do to achieve weight loss and how to do it, but in failing to understand why, despite best efforts and intentions, unwanted

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patterns of health behaviour continually re-emerged. This paradoxical duality between knowledge and action – "*the old Jekyll and Hyde*" (P32, female, aged 58) – appeared to further entrench feelings of helplessness among many participants:

> "*There's like a big barrier, and absolute concrete barrier that I cannot get over, no matter what I do. I have tried everything, and when I say everything I really mean I've tried everything*" – P46, female, aged 57 (1-1)

Other participants further emphasised their feelings of frustration in failing to understand 'why':

> "*I wish I understood why I did it. And I'm seeing nods of heads and I'm sure there's more than me in here that would like to understand*" – P33, female, aged 67

Many participants cited underlying psychological and emotional symptoms as being the root cause of their weight issues ("*there's a really clear underpinning message about obesity to me – that it's a symptom, not a disease*" – P41, male, aged 35 - 1-1). This was characterised among individuals who, in the past, had successfully lost weight before "*finding out that everything wasn't fine, that there were problems there that needed to be dealt with, that were separate from the weight*" (P31, male, aged 51). For many participants, therefore, the gap between knowledge, intention and behaviour was largely explained by limitations in internal psychological and emotional understanding, a dimension which represented "*the final piece of the puzzle*" (P32, female, aged 58).

The complex nature of food behaviours underscored the role of self-understanding as individuals described "*getting to grips with really understanding myself a bit more and why I do what I do*" (P4, female, aged 49) and the significance of "*beginning to understand our incredibly complicated relationship with food*" (P35, male, aged 55). In identifying motivating drivers associated with moving toward autonomy, participants described the need to work through "*underlying stuff*" to "*break the cycle*" (P31, male, aged 51). The necessity for in-depth psychological and emotional understanding was also underscored by the length of time that some participants had been struggling with personal weight issues for. Some participants highlighted their extensive challenges with weight loss efforts over decades, describing how "*it's gone on for years ever since I was little*" (P15, female, aged 28) and alluded to the formidable and critical barrier represented by the psychological dimension of their journey:

"I've spent 57 years being fat. It's quite difficult to change your mindset, which is what you have to do, and change your lifestyle. I've always been fat and I just think it needs a bit more to make things actually change for me, if they can ever change" – P6, female, aged 54

Reiterating this view, participants concluded that the disparity between having the knowledge of 'what to do', the deep intention and desire to 'do it' and the failure to maintain weight behaviours consistently over time was connected to a core psychological component:

"I would love to do it and I can't. I just can't. I'm sixty now and I've never done it, never. So it's got to be something psychological" – P46, female, aged 57 (1-1)

Further emphasis on the importance of "*getting that mindframe, that mindset, all the way there*" (P32 - female, aged 58) came with the reasoning that "*losing weight is probably 80% head and 20% physical, appetite stuff*" and "*if your head really is in the right place, then you can find your way, you can negotiate through*" (P26, female, aged 62). From this standpoint, therefore, many participants described needing "*to cover the psychology of the thing more than anything*" (P19, male, aged 57) and attaining a deeper level of self-understanding was felt to be a key attributing factor in sustaining health behaviours over time:

"The truth is you can go to Weight Watchers, you can go to whatever, and they will help you lose weight. Fine – 'You don't eat this, you don't put weight on'. But it's knowing and understanding why you're behaving the way you do. Because the truth is you know what you can and can't do, but I don't know why I'm doing it" - P33, female, aged 67

In moving toward self-understanding, some participants described how aspects of the programme helped them to gain insight on otherwise unseen connections between food behaviours, psychology and emotions:

"It was quite enlightening for our group. It brought to light a lot of things that we didn't realise were happening" – P37, female, aged 61

Whilst highlighting the value of a psychologically-focused process, many participants experienced a sense that provision of psychological support within the programme "*doesn't go quite deep enough*" (P29, female, aged 61) and yearned for further clarity and wisdom, as one individual described:

"…there must be, somewhere, somebody that can say if you look at this and you analyse why you do things then you can go, 'ah, I'm doing it for that reason!' And I think I was hoping I would get more psychological help, than practical help" – P33, female, aged 67

In this way, many participants reported craving a desire for learning beyond nutritional information and toward greater psychological understanding:

"I suppose – I call it the practical side of it, but the 'what's good food, bad food' – I kind of knew that already. It was more the psychological of why I do it that I find more interesting. But we took quite a few weeks to get to that point. So even though I came every week, I probably wasn't as engaged as I could have been" – P9, female, aged 43

Ultimately some participants described their psychological journey as "*the stalling block for me from which I couldn't ever get out*" (P45, female, aged 55 - 1-1). This experience was not universal, however, and some participants reflected upon psychological principles learned during the programme which had helped them to move toward a greater sense of autonomy. Amidst the ongoing challenges of managing weight, for example, mindful awareness practices were reported by some participants as being helpful in enabling them to "*stop and think*" (P27, female, aged 70), "*become more aware of why you were eating whatever you were eating*" (P26, female, aged 62) and distinguish between "*head hunger*" and "*belly hunger*" (P38, female, aged 45), moving them closer toward a sense of choice, and ultimately control. For others, awareness fostered psychological and emotional capacity ("*a breathing space where you can stop and think about things*" – P31, male, aged 51) within which individuals felt better equipped to overcome hurdles, or "*help get past temptation*" (P8, female, aged 45). Some participants continued to foster awareness through mindful practices which were initiated during the programme:

"But just remembering that experience of, you know for me, the shift to being aware of what I'm eating has been very important, and that in some way began at MoreLife with the CBT stuff, and actually there was a little exercise that we did just to eat a raisin and that still sticks in my mind, I really remember that" – P41, male, aged 35 (1-1)

For some participants, the opportunity to identify and 'name' feelings provided a gateway to autonomy. Such steps toward increased awareness, however, were often tentative and required further cultivating, as one participant described:

"But every now and then I do manage to do the old, 'oh and stop. I'm aware I'm feeling like this', and do this sort of step back from it, and realise it's because you feel rubbish, it's not because you particularly want that thing, so to try and identify with it before it does the damage, and hopefully stop it - and like I say it doesn't always work. It probably works less often than it does, but it's still better than it was before. I feel better than I did before"

– P8, female, aged 45

The experience of practicing mindful awareness was not always straightforward, however, and some participants portrayed their struggle to incorporate these practices despite good intention, as one individual stated:

"But for me it's a scorecard, and the scorecard is coming up less than it should, and that's not progress. Whereas if I don't keep that [food diary mindset] and just say, 'yes, I'm going to keep mindful of what I'm eating, it's not as effective, and it's a bit of a lie [laughs]"

– P32, female, aged 58

For some participants, gaining clarity on key values such as 'support', for example, enabled them to seek out avenues by which emotional needs could be met, in this case by way of a semi-structured slimming group:

"I went back to Weight Watchers again, which I'd tried in the past. I have actually found it quite helpful, as long as I remember why I'm there. It's not to be told what to eat, it's for the support" – P18, female, aged 46

These participants demonstrated a heightened sense of awareness in identifying and dissecting their emotional needs, and in taking subsequent steps to address them:

"…but I recognise myself that I get some sort of emotional need from my support group even if I stayed the same or am going up 10 pounds – either way" – P36, female, aged 48

The emotional needs of participants were also met in other ways. Some participants, for example, in transforming their lifestyle behaviours, conveyed the importance of taking a self-compassionate approach toward unwanted eating episodes:

"Yeah. So let's get rid of everything else in the house that's bad and consume thousands of calories in one day. And now I try to be like, 'right, I've done that, let's not be so hard on yourself. Draw a line. You've read the thing wrong, it's okay'. But I used to be completely [cuts off] - self sabotaging was my middle name" – P36, female, aged 48

Examples of addressing emotional needs in adaptive ways lay in contrast with instances in which emotional needs were not adequately met. Within stressful or untoward emotional contexts, for example, many participants experienced loss of agency and reported turning to food to 'control' their feelings:

"I do play on my mind a bit of stress. And I know stress is a horrible thing, and I was probably kidding myself that I can control it, but I realised that I probably can't – external forces control it. And then I comfort eat" – P24, male, aged 65

Some participants experienced the programme as a stepping stone to accessing enhanced support to address psychological and emotional aspects in the service of meaningful and lasting change. Such experiences provided further indication of success in the long run as being linked to interval value systems, self-understanding and stronger recognition and reconciliation of emotional and psychological needs:

"So yeah, it felt like a good idea to reach out for psychological support and it's proven - just for me personally - very successful so far, and feels different. It feels different. It does feel sustainable for the first time" – P41, male, aged 35 (1-1)

3.7.3.3. *Prioritising self*

Autonomy was described by participants from the perspective of learning how to put themselves first. Many participants underscored the importance of prioritising their own needs (*"it's because we don't put ourselves first. We're rushing around doing things"* – P14, female, aged 56), however reported struggling to do so (*"How do you put yourself first? Because a lot of us don't know how to, and that really came across in the group"* – P32, female, aged 58). With respect to prioritising self, participants cited various limitations such as a lack of time (*"trying to make time. It's very, very difficult to do"* – P31, male, aged 51), for example. Ultimately, participant beliefs in prioritising and addressing their own psychological and emotional needs corresponded with a sense of agency and control:

"And it's giving the psychological hold so that you are taking ownership of it, so that you're really understanding the chapters of it. Figuring it out how to make you first, so that everyone else can come in first – how everybody wins if you win" – P32, female, aged 58

Some participants reported success in focusing on themselves in the face of unhelpful external influences, and in so doing cultivating confidence and autonomy:

"And feeling a lot better in myself, especially in my head, and working stuff out and feeling like 'okay, you're big. Okay, people take the michael. But you learn to just focus on you and you build up your confidence.' So that's how I define success personally"

– P38, female, aged 45

Correspondingly, these participants also experienced autonomy through their personal trajectory of self-worth. Self-reliance was aligned to feeling deserving and worthy of taking care of themselves, and those who were cultivating their own sense of self-worth demonstrated nurturing and supportive behaviours in relation to both themselves and others, through being *"much more assertive"* and *"stronger"* (P36, female, aged 48), for example, as further described:

"My success is feeling like a worthy person. The weight is part of it but it's given me a real voice to say that I'm a worthy person, and I deserve to be treated just as well as anybody that's a size 8 or whatever. I don't deserve to be treated like a second-class citizen because I'm overweight" – P36, female, aged 48

Instances where a sense of self-worth was salient also supported a corresponding influence on behaviours with participants seeking out better quality experiences:

"At first it was all about weight and looks and that other stuff. And then it all became such a bigger thing. Things like, 'I do like to have a glass of wine' but I'd prefer to have a really nice glass and have one than drink a whole bottle of some crap for £3.99" – P36, female, aged 48

By contrast, some participants who were experiencing low self-worth reported avoidance behaviours which reflected these feelings, for example in the denial of meaningful pursuits. Failure to engage in valued behaviours, in turn, coincided with a move away from autonomy and control:

"I guess for me, what I would most like would be to have a slightly higher level of self-esteem, to the point where I think I deserve to go out and do good things, and have more fun, and feel more fulfilled, because then I don't feed these desires with food instead. I remember there was a time in my life when I went out and I did more things"

– P25, female, aged 46

Some participants experienced a similar link between self-esteem and self-reliance, influencing their ability to be "*more confident*" and "*stick to things more*" (P4, female, aged 49). Participants also relied on a practice effect in moving to autonomy, asserting that "*it's about repetition*" (P34, female, aged 42). Consistent with this, resilience - the ability to bounce back in the face of unwanted or adverse stimuli – also represented a key component of self-reliance and as one participant described, "*there are going to be things that are going to knock me back, that I'm going to have to overcome and, you know, deal with*" (P28, female, aged 57).

3.7.3.4. Abandonment

Though some participants described their experiences of the future from a basis of autonomy, the majority of individuals perceived their experiences following the end of the programme through the lens of abandonment. Abandonment, in this context, was characterised by tertiary themes of *collusion* and *loss*:

3.7.3.5. *Collusion*

Whilst some participants experienced moves toward autonomy during the programme, many others trended toward a desire for external accountability and control. These participants displayed a sense of dependence upon the facilitator and the prospect of weighing in, needing "*some kind of discipline to know that someone is going to be measuring me at a certain time*" (P7, female, aged 48), and bemoaned the fact that "*when I do it at home, no-one else is there*" (P11, female, aged 36), that "*no-one [is] looking over your shoulder*" (P39, male, aged 61). Similarly, other participants experienced a sense of lacking internal accountability and needing external control as a way of providing motivation and discipline, as "*a kick up my backside, for someone to monitor me, to keep me on the straight and narrow*" (P23, female, aged 51). The facilitator represented a key figurehead in the context of dependence, and some participants reflected a lack of autonomy through their desire for a more dominant approach, and as one participant asserted, "*[the facilitator] wasn't forceful enough. We need to be told!*" (P9 - female, aged 43).

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Many participants described experiences of dependency from the standpoint of moving from weekly to monthly sessions and the inevitable contraction in external accountability. As one participant asserted, "*monthly it's easier to think, 'well, I'll go over my calories this time, and make up for it next week'*" (P37, female, aged 61) resulting in "*a couple of weeks where you regress and on the third week you go on a crack diet!*" (P39, male, aged 61). In instances where a focus on external accountability was observed the effect was often significant and as one participant described "*when it stops or becomes less frequent, if that's the main element that's making the weight loss work, that's the bit that disappears*" (P31, male, aged 51). For some participants, attempts to maintain parity and avoid weight creep during this period brought about the onset of mind games and strategies, which appeared to have been driven by both the prospect of accountability from others (i.e. the facilitator) and the scales:

> "*I must admit, changing from weekly to monthly meetings was quite a shock to the system because I kind of felt myself thinking, 'well, hang on, I've got three weeks to go, I can afford that pizza and chips, so I'll have the pizza and chips now and I'll just diet a bit harder for the next three weeks'*" – P30, male, aged 57

Some participants, in experiencing a gradual contraction and eventual ending of support, reported a sense of vulnerability and often returned to unwanted patterns, as one individual described:

> "*So when you've got somebody there minding you every week I was alright with that, because, as I said, I did lose a stone in that first bit. And then when it started to go down to once a fortnight I sort of bounced a bit. But when it went to once a month that's when the issues started*" – P23, female, aged 51

Correspondingly, descriptions of dependence upon a parental-like other was further reflected by a desire among some participants for the programme to have been significantly longer, and as one individual described, "*I did wonder whether a year is really long enough for a programme like this. Maybe it needs to be 18 months or two years*" (P2, male, aged 50). Other participants experienced an even stronger desire for indefinite programme support, stating that "*ideally I would have liked to continue with weekly sessions for years and years!*" (P25, female, aged 46).

Despite a tendency to seek external accountability and validation to motivate their weight journey, many participants identified limitations in relying upon such an approach and also reflected on the

importance of taking ownership, discussing the need "*to learn how to do it on our own*" (P8, female, aged 45) and the sense that "*we were supposed to do it for ourselves*" (P11, female, aged 36). Participants emphasised the importance of moving toward self-reliance "*not to prove to someone else that you're doing it right. You've got to prove it to yourself*" (P35, male, aged 55) and raised further concerns about the fragile and ultimately unworkable nature of external validation as a method of sustaining health behaviours over time, describing how "*it's not about praise, it's about getting your head in the right place, and the praise is great but if you're doing it out of a desire to please others, or to get praise, it's going to wear off and you won't be able to maintain it*" (P26, female, aged 62). In describing their experiences, participants further underscored the short term nature of dependence upon external forces, which ultimately hampered a move toward autonomy:

> "*once you stop going, you just regress, because you're just working towards the praise, you're not working from your mind. You're not considering it sufficiently*"
>
> - P27, female, aged 70

Participant beliefs such as being "*responsible for oneself*" and recognising that "*at some stage I have to stand on my own two feet and manage myself*" (P27, female, aged 70) further reiterated participant notions of autonomy and its corresponding influence on the sustained adoption of health behaviours over time. Ultimately, as one participant declared, "*if you don't want to do it for yourself, nobody is going to persuade you to do it - you have to want to do it for yourself*" (P40, male, aged 68).

Whilst acknowledging the nature of taking responsibility, tension existed between internal and external locus of control and many participants experienced a sense of struggle in 'taking the wheel', needing "*to know that someone is going to be measuring me at a certain time, which I know I shouldn't be reliant on, but clearly that is still the person I am*" (P7, male, aged 48). Participants therefore experienced both support in taking ownership ("*they give you the tools. You are an individual. You are the adult*" - P38, female, aged 45) and, at the same time, a sense of challenge in moving toward self-reliance. As one individual confessed, "*it's down to me and that's what I find the difficult bit*" (P39, male, aged 61).

3.7.3.6. *Loss*

Abandonment was experienced from the perspective of loss, which arose at various stages of the participant journey. During the programme, for instance, some participants experienced a sense of

loss in relation to witnessing other group members drop out. Dropout was observed from the viewpoint of failure and some participants speculated on the departure of other group members as having resulted from a "*failure to see immediate success, that discourages people from going back psychologically*" (P41, male, aged 35 - 1-1), or from falling short on longer term weight loss expectations:

> "*I'm sure maybe that's part of why people fell away. Maybe they felt because that they hadn't stuck to their intended behaviour. Maybe they felt they had gone in with an ideal picture [of themselves] or something and they hadn't met that, and thought, 'well there's no point in me going back'*" - P28, female, aged 57

For some participants, abandonment stemming from perceived failure to achieve weight loss goals was evident through lost connections with other group members after the programme ended ("*there was talk about us having a Facebook group, and socially keeping together. But it didn't happen*" – P36, female, aged 48). Whilst potential reasons for breaking contact were hypothesised, including "*emotional difficulties*" and being "*too busy*" (P13, female, aged 50), such experiences portrayed a possible shift in self-identity from 'group member' to 'failure' and deepened the move away from connectedness toward alienation:

> "*I think some people have fallen off the wagon and they just don't want to be in touch with anyone from the diet group because it just makes them feel bad. I don't know what it is but people just said, 'look, it's really tough, I can't deal with weight loss at the moment. And it just fell apart, which is really sad*" – P15, female, aged 28

A sense of loss was predominantly experienced in the context of endings, first as sessions moved from weekly to monthly, and ultimately following programme completion. Some participants reflected upon their feelings of despondency following the disbanding of the group, as one individual described:

> "*It sort of all comes crashing down on you. It suddenly hits you that, 'oh, we're not coming back anymore', and then you're completely on your own with it*" – P7, female, aged 48

Given the strength of the bonds forged among group members, ending the programme represented a loss of community which was keenly felt by many participants who missed the support of the group once the programme had ended:

> "…the group were meeting every week, and a lot of my group were finding that extremely useful and supportive, and when we changed, that's when some fell by the wayside, because as I said, they missed the support on a weekly basis" – P19, male, aged 57

For many, this sense of disconnection consequently resulted in a 'regression to the mean':

> "…it's a bit like when you're going to Weight Watchers and you stop going to Weight Watchers, you're back in the same situation" – P31, male, aged 51

The experience of loss about was perceived from the viewpoint of a lack in provision of longer term support following the end of the programme:

> "I just feel as though once the course had ended it would have been nice to have a bit of a follow up for the sake of, 'how's it going? How's it gone? I mean a bit like how we're doing now but not so much as part of your research, but more focused on how we're doing, which would be good" - P31, male, aged 51

In the transition, first from weekly to monthly sessions, and subsequently following the end of the programme, many participants experienced finding it "*difficult*" (P26, female, aged 62) and "*struggling*" (P13, female, aged 50; P37 - female, aged 61), reporting that the monthly gap was "*where the issues started*" (P23, female, aged 51), that it was "*way too long*" (P26, female, aged 62) and "*too big a jump*" (P19, male, aged 57). Abandonment was further experienced through the lens of disengagement and isolation:

> "It was working well for me in the beginning and it got more difficult as it went on, and as the year ended I thought, 'all alone again'" – P25, female, aged 46

The descriptions "*all alone again*" and "*on my own*" suggest that after having experienced a period of connectedness whilst on the programme, a shift back to feelings of alienation then followed. The sense of abandonment experienced following disengagement from the programme led many

participants to fall into periods of relapse and regression whereby "*it became harder to maintain that same focus*" (P29, female, aged 61) and "*everything was out of the window, completely forgot all about it*" (P26, female, aged 62). For these individuals, connectedness experienced whilst on the programme was not sufficient to leverage a move to autonomy in sustaining health behaviours over time, and many participants described "*bad habits creeping back now*" (P22, female, aged 50), a sense of going "*back to your old ways*" (P7, female, aged 48) and the experience of "*[putting] quite a bit back on since the end of the course*" (P31, male, aged 51). This insight illustrated how an initial move from a sense of alienation (pre-programme) to connectedness (during programme), was easily reversed if progression to autonomy and self-reliance had not been firmly established. Further, a *connectedness-abandonment-alienation* cycle, repeated multiple times without a 'bridge' to autonomy, may also have reinforced a deepened self-perception of failure, in turn, resulting in avoidance behaviours resurfacing, as one participant described:

> "*So I am pretty much on my own and I've gone back to the stage now where I'm too scared to weigh*" – P15, female, aged 28

3.7.4. Reflexivity

The three superordinate themes revealed within the data – 1) *Alienation, 2) Connectedness, and 3) The Future (Autonomy or Abandonment)* – reflected differing stages of the participant weight loss journey and were underpinned by their associated sub-themes and tertiary themes. In analysing the data, several observable principles emerged, as follows:

1) Though conceptual in their nature each theme, or stage, existed independently (e.g. alienation and connectedness, for instance, were not outwardly experienced by participants simultaneously)

2) Occupation of participants at each stage was representative of their current experience and movement between stages appeared to be fluid, as opposed to rigid. Indeed, most participants notably displayed patterns of migration between stages (e.g. moving from alienation pre-programme to connectedness whilst attending the programme), as illustrated in Figure 2, below.

3) On the basis that participant position at each stage was transitory, it was postulated that:

    a) a set of definable characteristics within the participant experience would determine their occupation at each stage, as well as movement between stages, and;

b) these characteristics had a 'half-life', and needed to be reproduced by participants for their status within the current stage to be maintained (e.g. sustaining a sense of connectedness experienced during the programme required participants to reproduce similar characteristics of the experience following the programme end).

The scope of the current study did not allow for observable characteristics of participant experience to be deconstructed quantitively. Analysis of participant narratives, however, offered substantial insight into factors which grounded participants at each stage, as well as those propelling them between stages. These characteristics, outlined above, are explored in further depth within the discussion section. The conceptual model presented here offers an enhanced vantage point from which conditions leading to transformative change could be considered. In providing a linear description of the antecedents influencing sustainable behaviour change (i.e. represented by autonomy) as well as regression toward alienation, the model offers a unique perspective and contribution to the current understanding of the client weight journey.
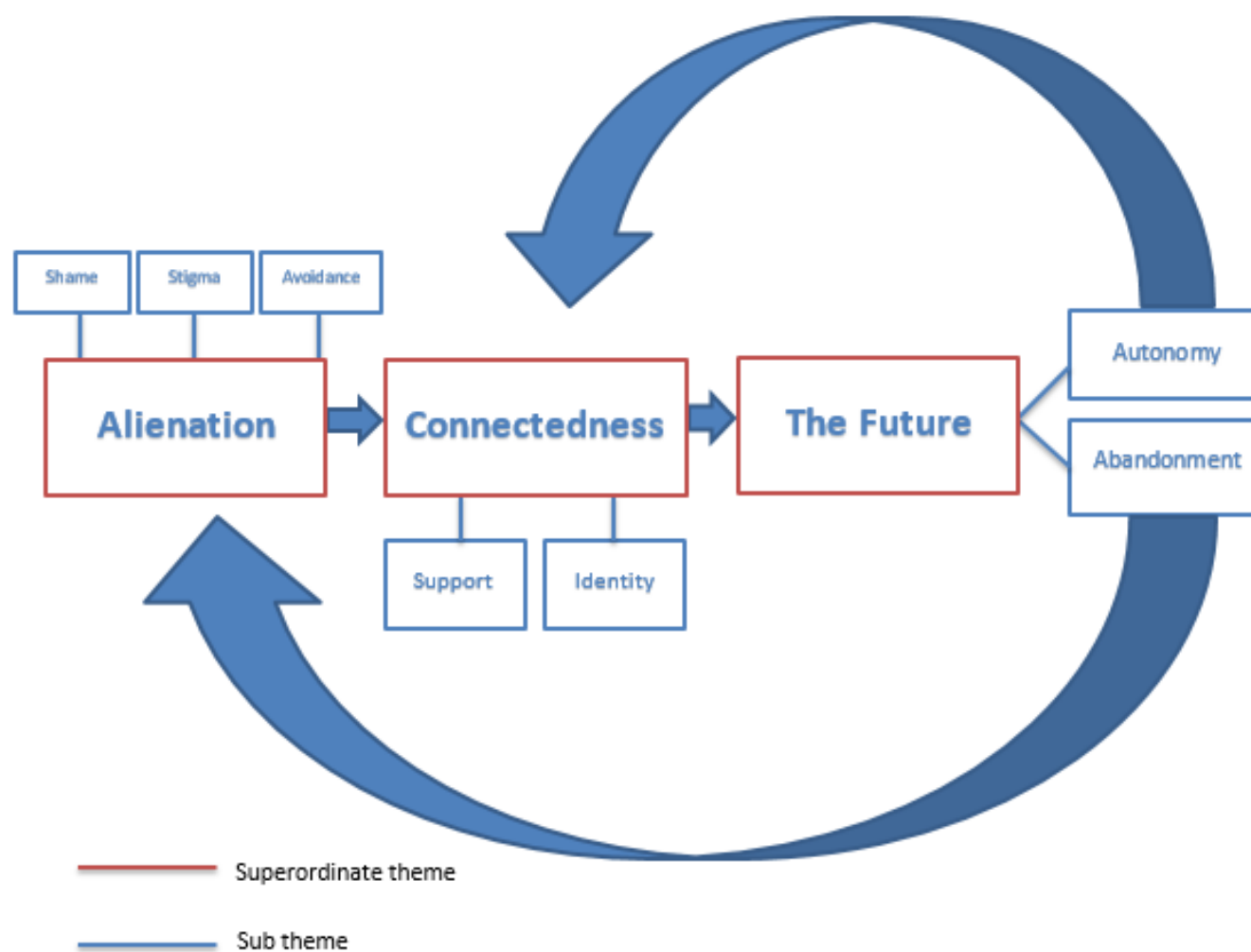
Figure 2. Representation of superordinate themes (*Alienation – Connectedness – The Future*), subthemes and their interrelationship

My identity both as the study researcher and a facilitator within MoreLife will have undoubtedly influenced perspectives at each stage of the research process - design, data collection and analysis. To minimise any potential researcher bias, I did not contact participants with whom I had previously worked, ensuring no prior exposure between the researcher and participants when the focus group and 1-1 interview process commenced. Despite taking this precaution, it is possible that my role as both a researcher and programme facilitator influenced the views of participants and, as a result, some individuals may have been reserved in sharing their perspectives openly. At the time of the study, I was a healthy weight male facilitating a group of predominantly overweight and obese females and this may have also led to reservation in sharing emotional experiences or negative views, for example. To mitigate such concerns, at the beginning of each focus group and 1-1 interview I offered reassurance to participants that information shared in the discussion would remain confidential, and strived to maintain as safe and non-judgemental a culture with the focus groups and 1-1 interviews as possible. In general, participants seemed open to sharing their experiences even when emotionally challenging to do so and, on reflection, my position as a researcher may have led some individuals to being more open, though the impact of these effects in either direction was difficult to gauge. The sample was self-selected which may have resulted in selection bias. In addition, the low study participation response rate (33%) may have distorted the representation of participant narratives (e.g. the nature of alienation meant that individuals at this stage were less likely to volunteer themselves to participate in the study). To ensure validity and veracity of the themes emerging during analysis of the focus group and 1-1 interview transcripts, I engaged in regular and ongoing dialogue with both my academic supervisor (CS) and my workplace supervisor (NS) to elicit critical and objective feedback at each stage of the process. To support further reflexivity and objectivity of the analysis phase, I maintained logs of my experience and sought additional external supervisory support (JO) to discuss and review themes.

3.8 Discussion

The current study explored the lived experience of 46 people who had participated in a psychologically-led weight management intervention. Through a mix of focus groups and 1-1 interviews participants described their journey during and post-intervention, and the barriers and facilitators connected to initial weight loss and maintenance over time.

Rather than assessing the effectiveness of specific behaviour change components as previous research has done (e.g. Abraham & Michie, 2008), the current study sought to examine the lived experience of participants sequentially over time, taking into consideration a temporal and contextual view of the weight journey. The study was not an evaluation, therefore, but rather a conceptual review providing a human lens into the interaction between behavioural and psychosocial factors influencing weight loss and its maintenance over time. Though quantitative outcomes such as weight change, for instance, were not elicited in this study, adopting a qualitative stance enabled in-depth exploration of the lived experience and patterns of variability and commonality to percolate to the surface. Likewise, without specifically assessing the relative importance of individual behaviour change components, the study sought to construct a coherent framework for understanding and improving health behaviours within a weight management context.

Following a process of coding the data, variations in experience were understood from the vantage point of three superordinate themes – *Alienation*, *Connectedness* and *The Future (Autonomy or Abandonment)* and their respective subthemes and tertiary themes. The following section describes each of these individual themes in turn:

3.8.1. Alienation

The first subordinate theme to emerge following analysis of the transcripts described the felt sense of alienation experienced by participants. Alienation, largely experienced prior to, or following the programme, was characterised by sub-themes of *shame*, *stigma* and *avoidance*:

3.8.1.1. Shame

The experience of shame was pervasive, with many participants exhibiting high levels of internalised blame in instances where weight loss endeavours were perceived to have failed. Failure, from this standpoint, corresponded strongly with self-blame which ranged from petty frustration to harsh self-criticism. The corrosive aftereffects of harsh self-talk were also evident and took a psychological and

emotional toll. The experience of shame was further magnified through self-comparison with others. Likewise, shame was experienced more acutely when individual behaviours fell short of validated social norms and expectations with participants experiencing disconnection and dissociation from the parts of themselves which they disliked, or had deemed to have failed. These findings are consistent with research which identifies high levels of shame, a significant impact on mental health and ability to cope, and an increased tendency to relapse among people living with obesity (Gilbert & Miles, 2014; p.219). Negative body image also predicts weight gain over time (Van den Berg & Neumark-Sztainer, 2007) and influences a range of unhealthful behaviours including binge eating, smoking, lower intake of fruit and vegetables and reduced levels of activity (Neumark-Sztainer *et al.*, 2006). Ultimately, shame – which may be described as the painful experience of feeling flawed and as a consequence, unworthy or not good enough (Brown, 2006) – was rooted in the psychological and emotional consequences of critical self-talk and comparisons made with others, leading to outcomes of learned helplessness and avoidance.

Findings further indicated that those who did not continue to meet personal weight loss expectations following the programme experienced feelings of shame and disappointment and many participants resorted back to using food in response to coping with difficult emotions. A link, therefore, between using food behaviours as a strategy for emotional regulation and perceived sense of failure was observed. These findings corresponded with existing research highlighting the psychological consequences of failing to meet personal weight loss expectations in the long run, with chronic weight relapse strongly linked to increased levels of body dissatisfaction and shame (Grave, Calugi, Molinari *et al.*, 2005).

3.8.1.2. Stigma

Stigma, based on external weight bias and prejudice, was commonly experienced by participants both prior to and following the programme. Stigma associated with being overweight resulted in emotional and physical avoidance among many individuals and made the act of 'reaching out' to others feel extremely difficult. Patterns of avoidance behaviours in response to stigma were highly evident. Participants perceived prejudice as being connected to a lack of understanding from others about the psychological impact of obesity. Though causality could not be delineated within the scope of this study, the combination of avoidance behaviours and the lack of understanding from others led to a sense of disconnection and, ultimately, alienation. Participants who described experiencing weight bias, for example, were also more likely to cite feelings of depression, self-criticism, emotional eating and lower self-esteem, mirroring previous findings (e.g. Friedman,

Reichmann, Costanzo *et al.*, 2005). In this way stigma, like shame, had a significant attritional impact on psychological and, consequently, physical health which proliferated into all aspects of life. Notably, these effects carry with them significant biological implications, and individuals experiencing both weight discrimination and self-recrimination over the long run have been found to be more highly sensitized and prone to physiological as well as psychological disorders (Matheson & Anisman, 2012). Obesity and stigma are commonly linked and previous reviews have found obese individuals to be more susceptible to experiencing stigma (Atlantis & Baker, 2008), and negative stereotyping often being viewed as lazy, greedy and weak willed (Puhl & Brownell, 2001).

The experience of weight discrimination among participants may be understood from the perspectives of social identity theory (Tajfel & Turner, 1986) and self-categorisation theory (Turner, Hogg, Oakes, Reicher & Wetherell, 1987), which describe the powerful influence of social membership to a prescribed group. When a person self-defines in terms of a specific social identity (e.g. an 'obese person'), the salience of that identity is likely to shape the individual's interpretation of, and responses to, the social world around them in a way that is consistent with the norms and expectations of that group. Correspondingly, individuals who perceive themselves as 'fat' or 'obese' are more likely to self-identify with negative connotations such as 'failure' and 'laziness', for instance (Duncan, Wolin, Scharoun-Lee *et al.*, 2011; Yancey, Simon, McCarthy, Lightstone & Fielding, 2006).

3.8.1.3. Avoidance

Many participants experienced alienation through the lens of avoidance. Avoidance was characterised by a tendency among participants to withdraw or 'hide' from meaningful experiences (physical avoidance), or escaping from or suppressing difficult feelings (emotional avoidance). Participants outlined several factors which contributed to physical and emotional avoidance. Weight-related physical restrictions, for example, manifested in difficulties with and, ultimately, withdrawal from valued behaviours such as cycling or going out with friends. Notably, however, for many participants psychological and emotional constraints, rather than physical limitation, appeared to be at the root of avoidance. This aligns with existing research which indicates that the gap between a person's actual and ideal weight is more predictive of physically and psychologically 'unhealthy days' than is actual body weight (Muennig, Jia, Lee & Lubetkin, 2008). Though causality could not be clearly delineated, such constraints included feelings of shame and helplessness following failed weight loss attempts, or instances of weight relapse. The impact of avoidance took a toll on physical, emotional and psychological health, which resulted in a further downward spiral of avoidance for many participants. Emotional avoidance among participants was further facilitated

and reinforced by cultural norms, in this instance a sense of 'Britishness', which fostered a reluctance to address difficult feelings. In this way, awareness, understanding and sensitivity toward 'surface' and 'deep' level structural components including cultural, environmental, social and psychological forces may further serve to reconcile avoidant tendencies among participants within the group context (Resnicow, Baranowski, Ahluwalia & Braithwaite, 1999).

Avoidance, both physical and emotional, also had a detrimental impact on feelings of self-esteem and worthiness, and emotional consequences caused by these cycles were compensated for by food behaviours which served as a way to suppress or self-medicate in response to difficult feelings. Previous literature has indicated that individuals who regain lost weight are also more likely to overeat in response to negative emotional states and as a coping strategy when faced with problems (Byrne, 2002; Kayman *et al.*, 1990; Ozier *et al.*, 2008).

Reflecting on the views of participants, it was evident that day-to-day experiences of stigma and shame resulted in emotional and psychological 'injury', and that these inflictions ultimately made avoidance behaviours more likely.

3.8.2. Connectedness

Group membership provided a fertile ground within which participants experienced a felt sense of connectedness, and closer analysis revealed two underpinning sub-themes - *support* and *identity*. Within the sub-theme of support, *feeling cared about*, *safeness* and, *facilitator expertise* were identified as a collective of tertiary themes. Likewise, the sub-theme of identity incorporated tertiary themes of *community* and *relatedness*.

3.8.2.1. Support

A number of 'ingredients' drawn from participant accounts formed the basis for a culture of support and, ultimately, connectedness within the group. These ingredients were categorised within three tertiary themes – *feeling cared about*, *safeness* and *expertise*:

3.8.2.2. *Feeling cared about*

The tertiary theme of feeling cared about reflected the care and attentiveness received by participants within the context of the programme and was represented in a variety of ways, for example, through attentiveness in following up before and after sessions (e.g. via text support) and a sense of being nurtured. Previous research has underscored the importance of the facilitator

demonstrating nurturing characteristics including warmth, being accepting, displaying genuineness and conveying positive regard for both the individual and the group (Braaten, 1989). Being nurtured was characterised by an approach which combined supportiveness and expertise. Feeling cared about was further reflected in opportunities for participants to provide feedback and openly interact with the programme, representing a sense of feeling listened to and being supported. The experience of feeling cared about was also determined by level of personalisation and many participants revealed a strong preference for an individualised approach (i.e. provision of 1-1 support, in parallel with group support) which may have enabled a greater opportunity to work through sensitive and personal underlying issues. These cited preferences lie in partial contrast with previous research which identifies weight loss outcomes as being superior within weight management interventions which are delivered in group rather than individual settings (Paul-Ebhohimhen & Avenell, 2009). By contrast, in earlier research a 5-year follow up study found that whilst group interventions may be helpful in supporting initial weight reduction, individual level support led to a better and more sustained effect in the long run (Hakala, Karvetti & Rönnemaa, 1993). Access to inviting venues and a culture of non-judgement were additional factors contributing to a sense of feeling cared about.

3.8.2.3. *Safeness*

Participant accounts brought to light the key dimension of group safeness in feeling supported and, ultimately, in experiencing a sense of connectedness. The term 'safeness' portrayed an emotional, rather than a physical sense of safety, describing a nurturing environment of openness and vulnerability within which participants could share experiences (see also '*Relatedness*'). The importance of the group as an ingredient to success has been previously affirmed by qualitative studies which describe the group as central in promoting motivation and providing a 'safe place' in which participants can openly discuss weight-related issues (e.g. Webb *et al*., 2014; Gray *et al*., 2009). For many participants, personal experiences relating to their weight were rarely shared in day-to-day life, highlighting the importance and challenge of creating conditions of safeness within an unfamiliar group setting.

Participants alluded to the role and legitimacy of the facilitator in fostering a culture of safeness within the group (see also, '*Facilitator expertise'*). The critical function of safeness within the group was exemplified both in instances where a culture of safety was felt to have been present and, likewise, where it had been lacking. Group size was also an important dimension and many participants described their reluctance to open up within a large group setting. Considerations of

optimal group size varied, though smaller groups were generally preferred to larger groups. These findings highlighted the implications of group size on group delivery effectiveness and is reflective of the wider literature. Whilst estimates of optimal group size vary across domains, groups of between five and seven participants are generally recommended (Levine, 1979; Yalom & Leszcz, 2005). To date, however, an empirical basis for group numbers in this range has not been established (American Group Psychotherapy Association, 2007). Given that larger groups naturally restrict the amount of time for participants to work through individual problems, practice key skills and receive feedback, a greater concern relating to optimal size may lie with ensuring group cohesiveness. Previous research, for example, has indicated a clear link between group cohesiveness and group efficacy (Oesterheld, McKenna & Gould, 1987; Hartmann, Herzog & Drinkmann, 1992) and draws attention to the challenges of stable group membership resulting from high dropout rates in larger groups (Yalom & Leszcz, 2005). Similarly, within the current study a further dimension influencing group safeness was continuity, reflected by the consistency in attendance of other group members and constancy in facilitator. Inconsistent attendance and dropout had a demoralising and uninspiring effect, representing a move away from a culture of safeness and toward feelings of ambiguity and uncertainty.

Echoing the above findings, previous qualitative studies have revealed key facets, including social support offered by group members, information sharing, accountability, empathy and role modelling (Butryn *et al*., 2011; Hayaki & Brownell, 1996; Latner *et al*., 2006; Perri *et al*., 2001) which underpin the adoption of positive lifestyle behaviours within the context of group-based weight loss interventions.

3.8.2.4. *Expertise*

Participant narratives highlighted the role of the group facilitator and the importance of traits such as being knowledgeable and experienced. Facilitator expertise was represented by several valued attributes which included: going beyond a listening ear in demonstrating a professional depth of knowledge; being able to tailor sessions to both individual and group needs, and to consider the wide range of participant backgrounds; the ability to manage often complex group dynamics effectively, and; proficiency in communicating core psychological concepts, with attention to clarity, structure, consistency and speed of delivery. Despite high expectations, there was also recognition of the significant level of skill required to demonstrate such traits consistently.

In a recent systematic review of 26 behavioural weight management interventions, facilitator support was the most frequently discussed dimension and often considered by participants to be a

'key' or 'essential' feature (Sutcliffe, Richardson, Rees *et al*., 2016). As the authors report, however, facilitator support within weight management programmes is often overlooked despite its significance. Previous weight management interventions incorporating ACT-based approaches in combination with traditional behavioural strategies, for example, have observed an expert effect, with sustained weight loss outcomes significantly enhanced when delivered by an expert (clinical psychologist) facilitator, as compared with a novice (doctoral student) facilitator (Forman, Butryn, Juarascio *et al*., 2013). These outcomes broadly mirror the current study findings and further underscore the critical nature of the facilitator role.

3.8.2.5. Identity

Identity was represented by two main tertiary themes - *community* and *relatedness*:

3.8.2.6. *Community*

Closeness with other group members fuelled ongoing engagement in the programme and, for many participants, this was the most valued aspect of their group experience. The finding corresponds with previous research highlighting the importance of group support in maintaining motivation during weight management endeavours (Butler & Mellor, 2006), and is congruent with psychotherapy literature indicating higher rates of attendance where stronger group affect is reported (Nackers, Dubyak, Lu *et al*., 2015). The community offered by the group context created an affiliative sense of purpose and contribution whereby individuals played a role both in receiving support, and also in providing their support to other group members. Previous research investigating the mechanisms of group support has delineated the critical nature of this kind of connectedness and identifies the key foundations of participant integration as the ability of other members to listen sympathetically and show care and acceptance (emotional support), provide practical help and assistance (instrumental support), and give advice or guidance on problem solving (informational support) (House, 1981). More recently, in exploring the experience of weight loss from the perspective of the participant, Tarrant and colleagues observed that patients on a bariatric group programme felt a sense of support through the 'psychological connections' made with other members of the group (Tarrant, Khan, Farrow *et al*., 2017). Sharing of personal experiences and challenges led patients to view their weight problem through a shared social identity, or 'collective lens', empowering the individual to initiate and sustain their own health behaviours. Normative group expectations and behaviours can, therefore, give rise to a sense of meaning, belonging, self-worth and stability among participants (Thoits, 1983), and more recent studies have further

emphasised the significance of group norms on participant attitudes and behaviours (Tarrant, Dazeley & Cottom, 2009).

3.8.2.7. *Relatedness*

Participants described their experiences through the lens of relatedness with others in the group. The sense of understanding from people who were in similar situations was cathartic for many participants in helping to normalise and validate their own challenges and contributing to a sense of empathy and non-judgement.

Congruency between facilitator and group participants in relation to norms, beliefs and values was also critical to the cultural dynamic within the group, influencing the degree of relatability and receptivity among participants. The facilitator role held a key function in the experience of empathy and non-judgement, and participants emphasised the importance of feeling understood. The value of specific facilitator traits including empathy and compassion (Allan, Hoddinott & Avenell, 2011; Morrison, Douglas, Bhopal & Sheikh, 2014) and non-judgement (Ahern, Boyland, Jebb & Cohn, 2013; Brown, Thompson, Tod & Jones, 2006; Penn, Moffat & White, 2008; Gilbert, 2010) have been cited in previous qualitative studies. Findings also correlated closely with previous research emphasising the significance of facilitator legitimacy, and the corresponding likelihood of the adoption of health behaviours when norms, beliefs and expectations of the facilitator are aligned with those of the group (Burlingame, McClendon & Alonso, 2011). In instances where relatedness and understanding were perceived to have been lacking, many participants made clear their attempts to 'close the distance' between themselves and the facilitator by wishing that the facilitator had lived experience of obesity. This mirrors the narratives of participants in earlier studies which describe facilitators who were extremely thin, for example, as being 'off-putting' (Allan *et al*., 2011).

3.8.3. *The Future*

3.8.3.1. Autonomy (Self-reliance)

Participant accounts offered insight into level of autonomy beyond the programme, experienced through the lens of meeting emotional needs.

3.8.3.2. *Emotional Sovereignty*

Many participants were diet programme veterans and described having a clear grasp of the nutritional aspects of their weight journey. Despite this, participants went on to describe a gap in their understanding, and alluded to the realisation that following many years of struggle their

challenges with ongoing weight issues were largely due to underlying psychological and emotional challenges which had remained unresolved. In a similar vein, participants emphasised a sense of frustration and, ultimately, a strong desire for a deeper understanding of their own behaviours through the lens of their psychological and emotional experience. The paradox between knowing what to do from a nutritional aspect, and failing to act appeared to entrench feelings of helplessness. Descriptions pointed to the key importance of psychological and emotional understanding, the absence of which represented a formidable barrier to sustaining health behaviours in the long run. Many participants had spent much of their lives engaged in weight management endeavours up to this point, chiming with previous indications that individuals often cycle through ever more complex strategies in efforts to lose weight and keep it off over the long run (Thomas *et al*., 2008). Amidst their struggles most participants had ultimately come to a realisation that there was a psychological root to their behaviour.

Some participants experienced a sense of autonomy through acquiring psychological and emotional tools during the programme, such as mindful awareness practices which helped to foster emotional and psychological space. In a recent systematic review and meta-analysis of 19 mindfulness studies, effects on weight loss were found to be greater when informal and formal meditation practices were incorporated, indicating 'moderate' effectiveness for weight loss and greater efficacy in reducing obesity-related eating behaviours (Carrière, Khoury, Günak & Knäuper, 2017). Despite such findings, the mediating effects of mindfulness on weight loss remain unclear. Based on narratives elicited within the current study, it may be speculated that short term effects of mindfulness on weight loss and obesity-related eating behaviours stem from a reduction in cognitive load and, subsequently, increased capacity to make adaptive judgements relating to food behaviours. Evidence for the longer-term impact of mindfulness during weight loss maintenance is also currently lacking (Carrière *et al*., 2017). Within the current study, whilst awareness gained through mindfulness practices was valued, participants also reported struggling to maintain consistent mindful practice beyond the end of the programme. In establishing heightened awareness around the need to address psychological and emotional needs more adequately, some participants viewed the programme as a 'stepping stone' to accessing enhanced support. Ultimately, however, for many participants the thirst for psychological and emotional understanding was not sufficiently quenched and, as a consequence, experiences reflected a shift back to familiar patterns of alienation following the programme.

3.8.3.3. *Prioritising Self*

Autonomy was reflected through the lens of prioritising psychological and emotional needs. Some participants described learning how to 'put themselves first' through cultivating their own emotional wellbeing, and appeared to engender a higher sense of agency and control. Most participants, however, either were not clear on how to meet their own needs in this way, or identified various limitations which hindered them from doing so. Prioritising self through taking ownership of emotional wellbeing was demonstrated in various ways, for example, by delineating internal needs and external challenges. Indeed, for a small subset of participants success was not primarily concerned with the physical dimension of weight but rather with better identifying and meeting own emotional needs, and the development of new coping strategies. Ultimately for these individuals, clarity of purpose in the weight journey was represented by internally-constructed ambitions which transcended the goal of weight loss. Rather than striving for weight loss as a finite goal, therefore, success was, for example, aligned to the infinite progression toward "becoming stronger".

Autonomy was further reflected in these individuals actively seeking out formal and semi-formal networks which could provide a supportive environment. Other participants appeared to 'stumble' upon a sense of purpose during the programme, for instance through a connection with, and commitment to, other group members (e.g. "I was there for the group to be honest"). In such instances, participants sustained a sense of purpose whilst attending the programme, however reported struggling once the programme had ended and contact had been lost. Such experiences appeared to align with a personal trajectory of self-worth and, in turn, reflected feelings of deserving and worthiness. Salience of these feelings corresponded with adaptive traits, such as being more assertive, and seeking out better quality experiences.

As their accounts reflected, such individuals appeared to be undergoing a process of reinvention as they cultivated a new sense of self underpinned by the ongoing prioritisation of their own emotional and psychological wellbeing. These characteristics, which resulted in an improved sense of self-worth, assertiveness and confidence, underpinned the category of autonomy and represented a heightened level of emotional maturity in focusing on an internal barometer of success. This stance indicated greater flexibility and purpose in navigating psychological barriers, and participants exhibiting these traits alluded to having a positive outlook on their weight journey and the future. Though possibly taking time to achieve, it seems plausible that this process – adopting a new 'worthy' identity – could have played a significant role in facilitating a shift in cognition and, correspondingly, health behaviours over time. These observations mirror previous research which

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highlights the role of reinvention and developing a 'healthy' self-identity in sustaining long term behaviour change (Ogden & Hills, 2008). Prioritising self was difficult for many participants, however, and those who were unable to do so were more likely to report feeling unworthy. Salience of feelings of low self-worth was associated with patterns of avoidance of valued behaviours, lower resilience and a lack of confidence.

3.8.3.4. Abandonment

Participants described abandonment through the lens of dependency upon the programme.

3.8.3.5. *Collusion*

In relation to their weight journey after the programme ended, many participants articulated a need for external accountability and control. Collusion between participants and the programme was represented by a felt sense of accountability to the group and the facilitator, as well as the prospect of the weekly weigh in. Some participants, in struggling with internal dependency, utilised external accountability as an approach to sustain motivation and discipline. Previous investigations have revealed a moderate correlation between locus of control and weight loss outcomes (Allison & Engel, 1995). Specifically, individuals with a stronger internal locus, for instance, tend to perceive outcomes as being under their control and therefore are more likely to experience a greater sense of agency over their weight journey. Like other weight management factors, however, the mediating effect of locus of control is unclear due to large heterogeneity of measures across studies, weakening its predictive influence on weight loss. The facilitator played a key role in providing external accountability and some wished that the facilitator had been more dominant. Collusion between participants and the programme was further evident with the gradual contraction of external accountability, as programme sessions transitioned first from weekly to monthly sessions, before finally ending. Participants were affected by the removal of programme support in different ways. Some participants described the change from weekly to monthly sessions as being a daunting leap, for example, and experienced the onset of mind games as they attempted 'damage limitation' between sessions.

Following the end of the programme, most participants experienced a sense of vulnerability and subsequently a return to unwanted patterns. Collusion was further characterised by the desire among many participants for the programme to have been longer. In describing the emotional and psychological aspects of their weight journey, for instance, the majority of participants experienced a sense of wanting more and this was exhibited by a shared desire for one-to-one, or more in-depth

psychological support. Many participants articulated a sense that without external accountability, the ongoing weight loss journey would, at best, be difficult if not doomed to fail. In instances where the weight journey was primarily fuelled by external accountability and validation, participants inevitably experienced a sense of abandonment following separation from the programme, reflected in difficulties with self-management, handling obstacles during weight maintenance, and emotional regulation. Anecdotally, therefore, dependence upon transitory external forces reflected a move away from autonomy and, though the importance of 'taking the wheel' was widely acknowledged participants routinely experienced a sense of struggle in moving toward self-reliance. Reflecting these narratives, previous reviews have observed that individuals who periodically relapse over time exhibit a greater tendency to engage in help seeking behaviours (Elfhag & Rössner, 2005). Though it may be speculated that such patterns of behaviour are linked to a heightened external locus of control, it is equally conceivable that these participants, in their moment of relapse, have not developed sufficiently the psychological and emotional skills, nor the social support networks, to cope when such situations arise (Stubbs *et al*., 2011). Of further interest, whilst individuals who experienced a sense of abandonment yearned for further programme support, existing evidence points toward a decreasing correlation between intervention duration and weight loss outcomes over time (Perri, Nezu & Viegener, 1992).

3.8.3.6. *Loss*

Abandonment was also reflected through the experience of loss. Many participants experienced a sense of struggle following the end of the programme. Relapse and regression back to unwanted patterns were also interconnected with the experience of loss, and a lack of motivation and focus post intervention was commonly reported. The experience of loss within the context of abandonment was characterised by feelings of helplessness and vulnerability in the face of psychological and emotional barriers, lower confidence, motivation and capacity for self-management, and a dispirited view of the ongoing weight management journey. In short, these experiences indicated a shift back to alienation following a period of connectedness whilst on the programme.

According to self-determination theory, behaviour may be initiated based on extrinsic motivation, but is likely to be sustained based on intrinsic motivation (Deci & Ryan, 2010). In this way, while positive expectations of future outcomes motivate behavioural uptake, it is the ongoing perceived satisfaction with such outcomes which provide the sustained reinforcement needed to maintain the new behaviour (Rothman, 2000). This interpretation may explain how once the loss of validation

derived from extrinsically motivated features of the programme (e.g. weighing in, or accountability to the group) had been 'lost', participants subsequently experienced a sense of abandonment.

3.8.4. The Weight Loss Journey

The proposed framework reflected a temporal and contextual view of the participant weight journey, examining the lived experience sequentially over time. Through this lens, three independent stages of the participant weight loss journey were identified – *1) Alienation, 2) Connectedness, and 3) The Future (Autonomy or Abandonment).* Movement between stages was fluid and occupation of participants at each stage was reflective of their current experience and contingent upon specific conditions being present (as defined by sub-themes and tertiary themes).

Most participants were observed to migrate between stages (e.g. moving from alienation pre-programme to connectedness whilst attending the programme). A move from alienation (pre-programme) to connectedness (during programme) was initiated through engagement with the group. The sense of connectedness experienced through group membership provided a balm for emotional wounds created by stigma, shame and avoidance which underpinned alienation. The value participants placed on group connectedness therefore appeared, on one level, to transcend all other aspects of the programme. This finding was perhaps unsurprising given both the evolutionary need for social connections and the positive psychological and physiological effects of social connectedness on health and wellbeing (Haslam, Jetten, O'Brien & Jacobs, 2004; Cacioppo & Patrick, 2008). Group membership provides an important source of social support for individuals, the positive effects of which supersede the impact of obesity, blood pressure and physical activity on health (Holt-Lunstad, Smith & Layton, 2010). Reflecting this, the experience of group connectedness contributed to psychological and emotional wellbeing for many participants, independently of weight loss. Correspondingly, other research investigating the absence of shared social identity, support and interaction has also revealed adverse effects on psychological and physiological health (Holt-Lunstad *et al*., 2015; Ashmore, Friedman, Reichmann & Musante, 2008) further supporting the centrality of group membership in sustaining health behaviours over the long term.

Autonomy is significant in relation to the maintenance of health behaviours largely because connectedness deriving from group interactions 'dries up' once ties with the group are severed. Such interactions therefore had a half-life, and needed to be reproduced by participants for their status within the current stage to be maintained (e.g. sustaining a sense of connectedness experienced during the programme required participants to reproduce similar elements of the experience

following the programme end). Among individuals who exhibited characteristics of autonomy, the 'bridge' from connectedness to autonomy appeared to be built upon a commitment to developing self-identity, over and above a singular focus on weight loss. More specifically, the notion of developing self-identity was represented by the process of clarifying, and then meeting, intrinsically-defined motives which were connected to personal psychological and emotional needs (e.g. "becoming stronger"). Autonomy therefore progresses connectedness beyond dependence on external sources through the acknowledgement, awareness and commitment to personal psychological and emotional needs. From this perspective, weight was perceived as a symptom of these needs rather than as a cause and replaced a reactive stance, represented by a unilateral focus on the physical aspect of weight loss, in favour of an active process of self-reliance in which the meeting of emotional and psychological needs was identified as a core and infinite process. Correspondingly, the function of the group, the facilitator, and the role of the individual as a group member, all bore significance in serving to meet these needs. Of further note, in addressing these needs individuals also proactively sought out alternative ways to replace the group interaction following the end of the programme. In this way, participants assumed greater self-reliance with respect to meeting psychological and emotional needs beyond weight loss alone.

In reflecting on 'The Future', it was evident that the majority of participants did not make the leap from connectedness to autonomy, instead experiencing a sense of abandonment and, ultimately, alienation once the programme ended. Among individuals who perceived their experience through the filter of abandonment, as opposed to autonomy, perspectives on weight loss and the future were marked by a sense of despondency. As such, and highlighting the challenge of losing weight alone and without support, these individuals were also more likely to have exhibited higher levels of dependency upon external sources of control, such as the practitioner or the programme. Anecdotally, these individuals also appeared to be more strongly influenced by weight loss as a barometer of success. In this way, participants who displayed a greater dependence upon external agencies to aid their efforts appeared to be motivated by a fear of losing control, and were less connected with their internal emotional context.

In evaluating their own measure of success, the majority of participants felt disappointed and frustrated that personal weight loss goals had either not been met, or maintained once achieved. In these instances, therefore, though individuals generally experienced a sense of connectedness whilst engaged with the group, group membership alone seemed insufficient to leverage a move from connectedness to autonomy, as indicated by participant accounts of post-programme relapse. It was

important to cultivate progression to self-reliance *during* the programme, with findings otherwise indicating an *alienation-connectedness-alienation* cycle in instances where the bridge to autonomy had not been negotiated. Such patterns are consistent with earlier research outlining the importance of self-efficacy and self-regulation in the weight loss journey, and the negative emotional traits associated with failure to maintain external control (Mata, Todd & Lippke, 2010). In a similar vein, self-determination theory links persistence in weight management over the long term with the degree to which adaptive behaviours are first generated, and then regulated and sustained by the individual (Deci & Ryan, 2010). Further, level of autonomy has also been demonstrated to be a reliable predictor of both programme attendance and weight loss maintenance (Elfhag & Rössner, 2005).

3.8.5. Future Directions

Observations within the current study, which adopted a temporal and contextual view of the weight journey over time, provide an opportunity for future interventions to consider more deliberately the nature of support, with notions of culture and identity serving as the entry point. For changes in health behaviours to be sustained over time it is posited that cultivating a powerfully-rooted sense of autonomy would be important and that this would not be possible through the acquisition of dietary advice alone, but rather achieved through the empowerment of individuals to regulate, support and sustain their own emotional and psychological wellbeing. Central within this approach, for example, lies the question of *function.* Specifically, how does the role of the group, the facilitator, and the individual serve to support psychological and emotional 'buffering'?

3.8.5.1. Role of group

The role of group identity relative to individual health behaviours was fully evident within the context of the current study, and bears consideration for future interventions. Given that psychological and emotional health involves the need to feel connected to close others, the group appeared to play a pivotal role in this regard. Fundamentally, participants find purpose through membership with the group and, in this way, sustain a sense of connectedness whilst engaged with a programme. Previous studies have similarly highlighted the importance of the group as well as post-programme support networks in sustaining weight loss behaviours (Perri & Corsica, 2002), for example through the use of NHS health trainers (Gardner, Cane, Rumsey & Michie, 2012). Crafting a group culture founded upon valued principles, as elaborated by participants within the current study (e.g. understanding, non-judgement, empathy, listening, learning), may serve to create a model incubator within which individuals are stimulated to reconnect with personal values. Such a forum

provides an opportunity for its members to identify domains in which values have been nurtured or neglected, both within the context of the group and in daily life, and establish insights into how these values may be further buffered. Reflecting this notion, commitment to meaningful, values-based living in varied life domains and the gaining of mastery and competence over freely chosen goals and values has been found to be predictive of positive health outcomes (Vallerand & Houlfort, 2003). Approaches incorporating values-based dimensions such as ACT offer a window of opportunity in this regard and are increasingly being integrated to positive effect within weight management frameworks (e.g. Forman *et al*., 2013; Lillis, Hayes, Bunting & Masuda, 2009; Niemeier, Leahey, Reed, Brown & Wing, 2012).

3.8.5.2. Role of Facilitator

Correspondingly, findings from the current study suggest a role for an expert facilitator who engenders the valued traits described (e.g. empathy, compassion, non-judgement) and displays skill in supporting the psychological and emotional needs of both the group and the individual, beyond the imparting of dietary advice alone. This position further necessitates a deep understanding and ability to manage group processes effectively, which may have implications for professional development and training. In addition to facilitator characteristics, consideration given to fostering a 'psychologically informed environment' (Johnson & Haigh, 2010) may also be beneficial in nurturing a sense of autonomy. Such an environment may engender empathic communication of relevant and relatable messages which more closely address psychological and emotional needs of participants, including fundamental concerns and barriers. For instance, whilst the irreducible principles of the energy balance equation (i.e. a surplus of calories leading to weight gain, and vice versa) are generally widely acknowledged, participants were unable to understand the unwanted patterns of their own mind and reasons *why* personal weight loss efforts failed despite best intentions, ultimately resulting in feelings of helplessness. Recent evolutionary and neuroscientific perspectives which address the primal and more contemporary nature of our 'tricky brain' (Gilbert, 2014), for example, may go some way to revealing mechanisms in a relatable way and explaining predictable aspects of "why we do what we do", supported more specifically by novel evolutionary learning processes (ELPs) which are increasingly being adopted within behaviour change methods (Crutzen & Peters, 2017). In addition to messaging, session venue also represents a key dimension in forming a psychologically informed environment and, as such, requires further consideration in the context of future interventions. Specifically, emphasis may be given to ensuring that facilities appropriately reflect group identity and culture.

3.8.5.3. Role of Individual

Finally, the proposed framework also acknowledges more definitively the role of the individual within the context of the group. Specifically proposed is the opportunity for participants to be supported in exploring, identifying and, ultimately, taking responsibility for personal psychological and emotional needs. Participants in the current study who articulated internally-constructed ambitions which transcended the arbitrary goal of weight loss, tended to be more confident and independent in sustaining adaptive health behaviours over time. In this way, supporting individuals in clarifying self-identity motives which are mobilised through affiliative relationships across three streams - behaviours toward others, coming from others, and directed toward themselves – may form a useful basis for emotional buffering (Gilbert, 1984). Once personal self-identity motives are established, individuals may gauge and assess the extent to which such motives can be met within the boundaries of specific group norms. Social norms inherent within a weight loss group context, for example, may be adaptive in serving intrinsically-determined motives (e.g. support, connection, knowledge-seeking) and therefore contribute to emotional buffering. On the other hand, aligning weight loss group norms with *external* motivations (e.g. accountability, validation-seeking) is unlikely to support psychological and emotional needs in the same way reflecting, in essence, transitory experiences of connectedness but not autonomy. If self-identified motives are not adequately represented by the group norms, therefore, individuals may stand to benefit from relinquishing a current identity in favour of a new, more congruent one for which these motives are normative. An individual who self-identifies with the motive of becoming physically and emotionally 'strong' or 'fit', for example, may decide to replace a weight loss group with an endeavour more aligned to this motive, such as a walking 'buddy' group or social exercise class. 'Unfreezing' (Lewin, 1951) from the identity of an overweight person, by which success factors are determined primarily in terms of body size and weight metrics, is difficult for individuals who have defined themselves by their overweight status over many years, mainly because people are often unwilling to give up identities which have been central to defining them in the past (Ellemers, 2003). Social identities play a significant role in the maintenance and protection of emotional and psychological wellbeing (Haslam & Reicher, 2006) and, in this light, loss of identity has been associated with feelings akin to the ground giving way, and even hunger (Breakwell, 2015; Thoits, 1983). Stress from giving up an identity, however, may be tempered by a willingness to take on a new identity (e.g. becoming physically and emotionally 'strong') and negative feelings linked to recategorisation may be further minimised by encouraging individuals to self-categorise simultaneously in terms of their existing identity (e.g. weight loss group member) and newly introduced identity (e.g. walking 'buddy') (Crisp, Stone & Hall, 2006). In addition to providing grounding and a new sense of belonging, taking on a new identity forms the basis for

receiving and benefitting from healthy affiliative relationships. Such relationships, which are reflective of self-identified and therefore meaningful sources of social support and challenge, in turn contribute significantly toward emotional buffering (Haslam, O'Brien, Jetten, Vormedal & Penna, 2005; Iyer, Jetten, Tsivrikos, Postmes & Haslam, 2009). Ultimately, such a process of reinvention may be necessary for individuals in taking responsibility for emotional and psychological needs, and thus leveraging a move from connectedness toward self-reliance (Ogden, 2000).

3.8.6. Future Directions: The Psychological Context

If psychological and emotional factors impact on the capacity of individuals to persist in weight management behaviours over time as indicated within the current study, strategies which serve to foster confidence and skill in this domain will likely be of value. In broad terms, psychological health has been associated with the flexible adaptation of emotion regulation to fit differing situational demands (Breznitz, Brown, González et al., 2007; Kashdan & Rottenberg, 2010; Watkins, 2011). From this standpoint, thinking styles may play an important role and ridged thinking patterns such as rumination, for instance - characterised by a general restriction in psychological flexibility - have been linked widely to onset maintenance and relapse of depression (Lyubomirsky & Nolen-Hoeksema, 1993).

According to self-perception theory (Bem, 1972), individuals who perceive themselves as being 'fat' or 'obese' may be more predisposed to such rigid thinking patterns through identification with failure where weight loss has not been achieved or maintained. Several adaptive alternatives to rumination have been suggested previously and include the use of positive distraction (e.g. Nolen-Hoeksema & Morrow, 1993), cognitive reappraisal (Yokum & Stice, 2013) and strategies to increase distress tolerance (Forman, Butryn, Hoffman & Herbert, 2009), for example, all of which may benefit individuals seeking to override the short term goal of experiencing immediate relief (e.g. using food as a source of comfort) in favour of pursuing long-term motives or goals. Evidence-based approaches such as ACT and CBT incorporate similar processes and may hold value in this regard (Forman & Butryn, 2015).

Evidently, both current and previous findings would indicate that a major function of autonomy lies in having the skills, ability and support (i.e. the resources) to manage and cope with difficulties on one's own terms. Future weight management interventions may therefore consider the adoption of a more nuanced psychotherapeutic framework as an opportunity for individuals with weight issues to access the roots of their problems, enabling greater self-reliance and consistency in managing

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health behaviours (Rogers, Ferrari, Mosely, Lang & Brennan, 2017). Such strategies may likely increase self-regulatory capacities through helping individuals in becoming more attentive to and mindful of their relapse signature, and developing coping strategies for those behaviours, by promoting understanding of feelings and conflicts about eating, food, exercise and health, and through addressing core issues relating to self-esteem, body image, and managing healthy weight behaviours over time.

Despite the potential offered by a psychological framework, delineation of the various psychological processes associated with weight loss – such as self-criticism, stigma or self-reliance, for instance – is necessary in developing understanding of their mediating effects. Significant methodological challenges, however, including cluster effects, issues of categorisation, homogeneity and bias, ensure that this endeavour remains an ongoing challenge. In a similar vein, psychological experiences following weight loss could also be better understood by featuring psychological outcomes more prominently (e.g. as a primary outcome) within broader definitions of success, in parallel with the more traditionally utilised physical measure of weight loss. Correspondingly, incorporating standardised measures of psychological health with greater consistency across interventions may also further support the improvement of outcomes beyond weight loss alone.

3.8.7. Future Directions: Beyond weight loss

Given that psychological and emotional health has often taken a back seat in favour of determining strategies for weight loss, relatively little is understood about these components within the context of weight management. Previous qualitative research into weight management interventions has outlined the negative consequences of ignoring or perhaps, at best, inadequately addressing the emotional and psychological context, as reported in some experiences of obesity surgery, for example (Ogden, 2000). In seeking a health and wellbeing solution, an approach which moves from a single point of focus on weight loss and toward an integrated physical and psychological framework will be necessary. Wellbeing, as defined by the WHO, constitutes "...a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity" (WHO, 2008). Corroborating this perspective, therefore, it may be concluded that in addressing wellbeing, physical aspects of weight loss cannot be afforded at the expense of key psychological and emotional dimensions, and vice versa.

Supporting an adapted model of wellbeing and contrary to dogmatic thought, research implicating higher body weight as the key cause of obesity-related health problems has been, to date,

unconvincing (Logel, Stinson & Brochu, 2015). Correspondingly, despite a strong correlational link, evidence to demonstrate that weight loss intrinsically improves health remains modest. In a systematic review assessing 21 RCT's of weight loss interventions, for example, participants in the weight loss condition experienced decreases in coronary and mortality risk, as well as slight improvement in blood pressure, compared to control (Tomiyama, Ahlstrom & Mann, 2013). Upon closer inspection of outcomes, however, it was observed that these health gains were uncorrelated with weight loss, with participants improving in each dimension irrespective of, and despite considerable variation in, the amount of weight lost. In a similar vein, a review of health interventions, which included increased exercise, social support and consumption of fruits and vegetables in addition to a calorie control component (Bacon & Aphramor, 2011), reported small yet equally positive health outcomes in the absence of weight loss.

Arising from such findings, efforts to identify and address specifically the health risks associated with a higher body weight have begun to emerge. The Health at Every Size (HAES) intervention, for example, abandons a focus on weight loss in favour of encouraging eating and exercising for wellbeing, reducing weight bias and stigma, and protecting obese individuals from the effects of discrimination (Bacon, 2010). Evaluation of outcomes from six HAES interventions have reported decreased BP and cholesterol, reduced instances of binge eating, increased physical activity and improved psychological wellbeing, all without diet or weight loss (Bacon & Aphramor, 2011). With signs of a potentially shifting tide, addressing challenges in delineating and defining dimensions of psychological and emotional health within the context of the individual weight journey, once more, remains a critical next step.

3.8.8. Limitations

The study contained some limitations. Whilst the study benefited from gathering the experiences of participants who had participated in a MoreLife programme up to two years prior to taking part in the current study, the retrospective nature of the design meant the information gathered was subject to 'response shift' (Visser, Oort & Sprangers, 2005) and recall bias. It is feasible, for example, that participants who initially lost weight during the programme may have held a differing point of view if the study had taken place immediately following the final session, rather than at a later time point after a period of weight regain. Given an historical tendency of weight management programmes to focus on short term post intervention outcome data, and with data indicating that over 50% of weight lost is typically regained within one year following a weight loss intervention (Byrne *et al*., 2004), this aspect may simultaneously represent both a limitation and a unique

strength of the current study. To reconcile differences in findings, future studies may seek to address this by eliciting participant narratives both at intervention end and at later predetermined intervals.

The study did not aim to gather quantitative data, but rather provide insight into the experiences of the participants involved. Despite measures taken to ensure neutrality (e.g. providing participants with a full briefing and assurances of impartiality and confidentiality prior to commencing each focus group or interview) the effectiveness of these measures was difficult to ascertain. Within the context of a potentially daunting focus group or 1-1 interview the degree to which participants felt secure in sharing responses openly and honestly, and thus reducing potential bias, could not be accurately determined. The number of programme sessions attended by participants ranged from between 7 and 22 sessions, which invariably will have also coloured individual experiences and narratives in a way that cannot be accounted for.

It should also be noted that whilst all participants who had previously been engaged within a MoreLife Oxfordshire programme had been invited to participate in the study (excluding those groups who had been facilitated by the researcher), the sample consisted of individuals who responded positively and were self-selected to the study, raising the potential for self-selection bias. Despite a relatively large sample size (46 people in total), therefore, it is possible that the characteristics of volunteers were not representative enough to assign generalisability to the data. Findings did not account for missing data from the considerable number of programme non-completers who could not be reached by email or phone to request their participation in the study, or who declined to take part (n=195). This is especially significant both in relation to the study and in the wider context of psychological and emotional health, given that individuals with higher levels of psychological distress, lower self-esteem and poorer HRQoL are more likely to dropout of weight management programmes (e.g. Lim, Norman, Clifton & Noakes, 2009; Paxman, Hall, Harden, O'Keeffe & Simper, 2011). More generally, by relying on completer-only analyses, weight management interventions are often more likely to overestimate effects, raising further methodological concern.

Though weight management services are increasingly incorporating CBT-based principles, there are no consistent guidelines on the design and delivery protocols for psychologically-based weight management interventions. Therefore, it should be recognised that results in this study are not representative of programme variations from other psychologically-led weight management

programmes, and reflect only the experiences of people who have participated on the MoreLife Oxfordshire programme.

The scope of the current study did not allow for observable characteristics of participant experience to be deconstructed quantitatively and, given the qualitative nature of the study, specific hypotheses and objective criteria such as weight change or the impact of specific behaviour change principles, were displaced in favour of gleaning the subjective accounts of participants. Without quantifying the findings (e.g. by analysing the number or demography of participants who endorsed each concept) capacity to interpret the data was restricted. Therefore, whilst potential associations within the findings were reflected upon anecdotally, difficulties in determining the validity and causality of hypotheses were an acknowledged limitation of the study design. Future research combining quantitative and qualitative methodologies may support the process of validating these findings and elucidating causality.

3.8.9. Strengths

Few studies to date have explored the experiences of weight management participants from a temporal and contextual perspective, which extends the potential for new exploration and adaptive gains. A key strength of the current study also lay in gathering participant experiences upto two years post intervention. This compares with existing weight management research which has tended to assess data collected at the commencement and completion stages of treatment interventions, with follow up ranging from a few weeks to a year where undertaken (Garip & Yardley, 2011). The need for longer term follow up is especially prescient given that, as described, most weight lost by obese individuals is typically regained within one year of attending a weight loss intervention. Further investigation of this pessimistic trend is long overdue. In this light, weight management research is increasingly recognising the richness and potential offered by participant narratives and the lived experience, and the growing number of studies of a qualitative nature serves to reflect this (e.g. Metzgar *et al*., 2015; Tarrant *et al*., 2017; Thomas *et al*., 2008; Webb *et al*., 2014; Brown & Gould, 2011; Archibald, Douglas, Hoddinott *et al*., 2015). Within the context of the current study the wide-ranging and, in many cases, extensive time periods between the final programme session attended and follow up study accounted for changes in views and feelings and offered potentially fresh insights which may otherwise have been missed. Further strengths of the current study included the relatively large sample size (46 participants in total) which increased the potential generalisability of findings, and the use of two methods of data collection (individual and group

interviews). Finally, it was ensured that the researcher had not served as group facilitator for study recruits, thus reducing potential researcher bias.

3.9 Conclusion

Research over recent years has offered a detailed map of the direct causes of obesity and its subsequent impact (Butland *et al.*, 2007). Despite this, a seemingly ever-growing legion of people living with obesity identify with knowing 'how' to lose weight, but encounter significant difficulties in doing so or, at least, in maintaining adaptive health behaviours over time. Indeed, amidst a myriad of accessible information relating to food and nutrition, and powerful individual desires to maintain health behaviours, the experience of overeating and making unwanted food choices remains uncomfortably familiar for a great many. In response to the issue, the prevailing attitude, both at a cultural and individual level, has been to 'try harder' (Logel *et al.*, 2015). Against this backdrop, participant narratives are being viewed as increasingly critical to the understanding of upstream determinants such as empowerment, social networks and messaging relating to weight (Thomas *et al.*, 2008). By listening to and documenting views and experiences of the participant, the conceptual model presented within the current study offers an alternative vantage point from which these processes might be understood and considers the context under which transformative change occurs. In providing a linear description of the antecedents which influence *alienation* (characterised by avoidance), *connectedness* (reflected within the experience of group membership) and either *autonomy* (representing sustainable behaviour change) or *abandonment* (indicating regression back toward alienation), the model adds a sequential perspective to the existing understanding of the weight journey.

A sense of autonomy, which was reflected among a small subset of participants, was characterised by a focus on assuming personal responsibility for emotional and psychological needs. Supporting this notion, findings from the current study outlined the essential role of developing self-identity in the transition from connectedness to autonomy. The majority of participants, by contrast, reported feeling a sense of abandonment once the programme had ended, reverting back toward alienation as they struggled to support their ongoing weight loss behaviours. In evaluating their own measure of success, these participants reflected a sense of disappointment and frustration that personal weight loss goals had either not been met, or maintained once achieved.

The current study opens the door for a more nuanced approach which addresses the issue of weight as a symptom rather than a cause and centralises the importance of meeting psychological and

emotional needs over and above a unilateral focus upon weight loss. If transitioning from connectedness to autonomy could be adaptive in sustaining health behaviours over time, then efforts to identify the levers that influence this move may hold merit. The study explored some psychological approaches and other possible steps toward achieving this aim.

The study supplements the existing research base by providing an alternative lens through which to view the participant experience within a weight management intervention, and complements parallel findings from quantitative methodologies. The research may help to inform the development of weight management interventions in ways that are more consonant with the needs of the individuals they seek to serve. From this standpoint, the study may be of interest to health professionals and decision makers, including commissioners of weight management services who seek to improve access and engagement among their target populations.

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3.11 Appendices

Appendix 3a: MoreLife Weight Management Curriculum Overview

Session	Lego brick	Skills/Behaviour change techniques (Michie *et al*., 2013)	Mindfulness thread (self-awareness)	Toolkit	Strategy for home
1. Introduction: Getting started	Self-awareness	Engaging the group Managing a round/self-monitoring	'How does it feel to be here?'		Food-mood diary Estimated EER related eating
2. Choosing a food strategy for weight loss	Self-awareness Self-reliance	Dietician led/knowledge support	Mindful eating – raisin/chocolate Mindful eating questionnaire	- Mindfulness explanation and eating exercise - Mindful eating questionnaire	Food-mood diary Eating to EER
3. Accessing feelings: Keeping a food diary	Self-awareness Self-regulation	Identifying feelings ACT principle: I feel X AND will do Y/self-monitoring, barrier identification, relapse prevention, stress management, goal-setting	Mindful breathing	- ACCEPTS handout - Mindful breathing exercise - Leaves on stream exercise - Train of thoughts handout - Thought record	Food-mood diary Eating to EER *ACCEPTS* *Mindful breathing* *Food-mood diary* *Eating to EER* *Leaves on stream* *Train of thoughts* *Thought record*
4. Managing monitoring: Using monitoring to access thoughts	Self-awareness	Identifying thoughts ACT principles – thoughts are thoughts not reality/ self-monitoring, barrier identification, stress management, goal-setting	Leaves on stream		
5. Approaching activity	Self-awareness Self-reliance	Identifying benefits and barriers/barrier identification, stress management, goal-setting	Body scan	- Body scan - approaching activity handout	Food-mood diary Eating to EER Activity related goals

Session	Lego brick	Skills/Behaviour change techniques (Michie *et al*., 2013)	Mindfulness thread (self-awareness)	Toolkit	Strategy for home
6. What matters most? Exploring your values	Self-awareness; Self and others	ACT values/self-monitoring, barrier identification, stress management, relapse prevention, goal-setting	80th Birthday celebration: Exercise in imagination	Info about Values (for WMPs) ACT values sheet	How do you want to treat others? How do you want to treat yourself? Work, Relationships, Leisure, Personal Growth
7. Who and what influences you?	Self-awareness; Self and others	Circles of influence/antecedents and consequences, barrier identification, cognitive restructuring, assertiveness training, stress management, goal-setting	Cultivating wellbeing	Foresight Map Circles of Influence	Who influences you? Relationships, work, home and social environment. Problems solving
8. Evaluating your food approach for weight loss	Self-awareness; Self-reliance	Dietetic led/knowledge support	Review of mindful eating exercise and questionnaire	Progress Report What's working?	Food-mood diary Eating to EER
9. Hurdles in the weight loss journey: Handling difficult situations	Self-awareness; Self and others Self-reliance	Overcoming Hurdles/ barrier identification, social support, relapse prevention, problem solving, assertiveness training, stress management, action planning, goal-setting	Being with the difficult	Values toward?/Values away from? Identifying solutions Committed action	Assertive communication What makes me feel good?
10. Emotions and food	Self-awareness; Self-regulation	Identifying Self and Building Self/ barrier identification, relapse prevention, stress management, goal-setting	Self-compassion mindfulness exercise	5 senses self-soothing Distress tolerance techniques	Awareness of positive vs negative labels

Session	Lego brick	Skills/Behaviour change techniques (Michie *et al*., 2013)	Mindfulness thread (self-awareness)	Toolkit	Strategy for home
11. Understanding Self 12.Building Self	Self-awareness; Self-reliance	Developing the Psychological and Emotional 'Toolkit'/antecedents and consequences, barrier identification, relapse prevention, coping planning, stress management, social support, action planning, goal-setting	Passengers on a bus Body scan Cultivating awareness	What tools have you learnt? 4 Building Blocks – Self-awareness, Self-regulation, Self & Others, Self-reliance	Implementing the Psychological and Emotional 'Toolkit'
13. Managing setbacks	Self-awareness; Self-reliance	Building Resilience/relapse prevention, cognitive restructuring, problem solving, social support, coping planning, stress management, goal-setting	Practicing self-compassion		Food-mood diary Estimated EER related eating Emotional and Psychological 'Toolkit'
14. Staying on track	Self-awareness; Self-reliance	Maintenance/self-monitoring, barrier identification, relapse prevention, stress management, action-planning, goal-setting	Check in Mindfulness plan	Barriers to weight loss checklist Monthly review	Barriers to weight loss checklist Weekly monitoring – Check in Monthly review

Appendix 3b: Participant Information Sheet

Participant Information Sheet

We would like to invite you to take part in a research study. Before you decide whether you would like to take part it is important that you understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

Title of Study

Investigating the experiences, barriers and facilitators among people accessing a psychologically based weight management service

What is the purpose of the study?

This study is part of a doctorate research thesis being carried out by Kal Kseib. The purpose of the study is to explore the experiences, barriers and facilitators among individuals participating in a MoreLife intervention. It is hoped that outcomes from the research will lead to service improvement and hence improved health outcomes.

Why have I been invited?

The reason you have been invited to take part in this study is because you have previously taken part in a MoreLife programme.

Do I have to take part?

Participation in the project is entirely voluntary, and you can choose to participate in part or all of the project. You can withdraw at any stage of the project without being penalised or disadvantaged in any way. It is upto you to decide whether or not to take part. If you do decide to take part you will be

asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

What will happen if I take part?

If you decide to take part in the study you will be asked to join a group discussion (involving a maximum of 8 people in total). The lead researcher, Kal Kseib, will ask open ended questions about your experience on the MoreLife programme. An example of the kind of questions that will be asked might be, 'How would you describe your experience of the MoreLife programme?' You will not be required to answer any questions that you do not wish to answer. The discussion will last approximately 1.5 hours in total.

What are the possible disadvantages and risks of taking part?

One possible disadvantage of taking part in this study is that some of the questions may affect you and you may find them to be sensitive. You will be supported throughout and if this happens, any feelings or preferences will be respected. You maintain the freedom to withdraw from the study at any time without explanation.

What are the possible benefits of taking part?

Taking part in this study will provide researchers with a better understanding of the participant experience on the MoreLife programme which, it is hoped, will lead to service improvement and improved health outcomes.

What will happen when the research study stops?

Once the study has finished the audio recording of the session will be transcribed and coded. The recording will be held for three years after the publication of the data and then destroyed. Consent forms will be kept in a locked cabinet at MoreLife, and held for 10 years after the publication of the data, in line with the data handling procedures set out by the government.

Will my taking part in the study be kept confidential?

Yes. Information provided during the group discussion will be anonymised. No identifiable data will be published or shared with any other organisation. Whilst evaluation outcomes may be shared with other departments, health organisations and external third parties acting on MoreLife's behalf, no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time without explanation.

What will happen to the results of the research study?

The results from this study will be used to for the researcher's doctoral thesis and may be shared with other departments, health organisations and external third parties acting on MoreLife's behalf and/or disseminated in scientific journal articles. Your anonymity will be maintained throughout this process.

What if there is a problem?

If you have any problems, concerns or questions about this study, you should ask to the lead researcher (Kal Kseib), or any of the MoreLife team. If you remain unhappy and wish to complain formally, you can do this by contacting MoreLife on 0808 208 0001.

You could also write to MoreLife at:

MoreLife
7200 The Quorum
Oxford Business Park North
Garsington Road
Oxford
OX4 2JZ

Email: ███████████████████
        oxfordshire@more-life.co.uk

Further information and contact details:

Please don't hesitate to contact me by email at ████████████████████ or by phone on ██████████ Additionally, you may contact either my work supervisor, Nicola Smith at ████████████████████ (████████████ or my academic supervisor, Dr Catherine Sykes at ████████████ (████████████

If you wish to complain about the study, please contact the Secretary to Senate Research Ethics Committee on 0207 7040 3040 or write to:

Anna Ramberg
Secretary to Senate Research Ethics Committee
Research Office, E214
City University London
Northampton Square
London
EC1V 0HB

Email: ███████████████████

Thank you for taking the time to read this information sheet

Appendix 3c: Participant Consent Form

April 2016

Adult Consent Form

Participant name _____

Title of Project

Investigating the experiences, barriers and facilitators among people accessing a psychologically based weight management service

Please sign your initials in the boxes next to the following statements

Statement	Please Initial Box
I confirm that I have read and understood the Participant Information Sheet for the 'Evaluation of MoreLife programme' research (dated April 2016) and have had the opportunity to ask questions.	
I understand this will involve allowing the group discussion to be audiotaped and I agree to both Kal Kseib (Health Psychology research student at City University, London) and MoreLife recording and processing this information (anonymised).	
I understand that my participation is voluntary and I am free to withdraw at any time, without giving any reason.	
I understand that information I provide will be confidential and used only for the purpose(s) set out in this statement. My consent is conditional on MoreLife and City University complying with its duties and obligations under the Data Protection Act 1998.	

I agree that information I provide (anonymised) can be used by MoreLife for service improvement and by Kal Kseib in his research undertaken as part of his Doctorate in Health Psychology at City University, London	
I agree that information I have provided to MoreLife prior to joining the programme (i.e. during the Motivational Interview and pre-service assessment) may be accessed and used by Kal Kseib in his research undertaken as part of his Doctorate in Health Psychology at City University, London	
I agree to take part in the above study.	

MoreLife is a data controller and operates under the Data Protection Act 1998. They will use this information and only process your personal data in accordance with the company's current data protection legislation. Information contained on this form will be disclosed to members or stakeholders of MoreLife only as necessary. Data will be stored in a secure environment that enables continued access to the required records. Personal information will be stored separately from data.

How we use your information
Your contact details are being held by MoreLife on a database. Data provided will be confidential and no identifiable data will be published or shared with any other organisation. Whilst evaluation outcomes may be shared with other departments, health organisations and external third parties acting on the company's behalf, no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

Name   **Signature**   **Date**

_____   _____   _____

Appendix 3d: Debrief Form

Title of Study

Investigating the experiences, barriers and facilitators among people accessing a psychologically based weight management service

DEBRIEF INFORMATION

Thank you for taking part in this study. Now that it's finished we'd like to tell you a bit more about it.

This study is part of a doctorate research thesis being carried out by Kal Kseib. The purpose of the study is to explore the experiences of people who have participated in a MoreLife intervention. It is hoped that outcomes from the research will lead to service improvement and hence improved health outcomes.

We hope you found the study interesting. If you have any other questions please do not hesitate to contact us at the following:

Kal Kseib – Lead researcher
Email:
Phone:

Nicola Smith – Work Supervisor
Email:
Tel:

Dr Catherine Sykes - Academic supervisor
Email:
Tel:

Ethics approval code: PSYETH (P/L) 15/16 139

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Qualification in Health Psychology (QHP) Stage 2

Research – Systematic Review (4.0)

Evidence submitted:

(ii)   A systematic review (6,000 words)

Word Count: 5,984

Effectiveness of Acceptance and Commitment Therapy tools used in weight loss: A systematic review

Khalil Kseib, Department of Health Sciences, City, University of London

Address for correspondence: *City, University of London, Clerkenwell, London, EC1V 0HB, UK*

Email: ▮▮▮▮▮▮▮▮▮▮▮▮

What is already known about this subject:

- Acceptance and Commitment Therapy (ACT) is effective in treating a wide range of disorders (e.g. treatment of depression, anxiety and psychosis)
- Behavioural interventions have been shown to be effective in achieving 5-10% short weight loss (6 months)

What this study adds:

- A review of the efficacy of ACT tools in the context of weight loss
- A window into the effectiveness of ACT in managing weight over the longer term (e.g. 12 months)

4.1 Abstract

In the search to improve weight loss outcomes among overweight and obese populations, behavioural weight management interventions have been increasingly utilising acceptance and commitment therapy (ACT) approaches to facilitate ongoing dietary and physical activity behaviours among its participants. This systematic review presents findings from programmes using ACT training to facilitate weight loss and seeks to determine the current evidence for its efficacy as a sustainable approach to weight management. Published and unpublished studies of weight loss programmes incorporating an ACT training component were identified through a comprehensive search of online databases. A total of 16 studies met the inclusion criteria and were included in the review, of which 13 were published in peer review journals, and three were unpublished dissertations. The studies comprised of nine RCTs and seven uncontrolled, observational studies. All 16 studies included in the review reported either weight loss or a reduction in BMI between baseline and end of intervention. An assessment of longer term weight loss outcomes revealed mixed results, with only seven studies observing continued weight loss among intervention participants during the follow up period. Despite limited follow up outcome data, observations from this review lend tentative support for the efficacy of ACT as an approach which may be helpful in facilitating long-term weight management, however further analysis of both causality and long-term impact is necessary.

Keywords: BMI, obesity, weight loss, acceptance and commitment, systematic review

4.2 Introduction

It is currently estimated that 1.9 billion adults worldwide are either overweight or obese, with the prevalence of obesity having doubled between 1980 and 2014 (1). Physical health issues linked to obesity include increased risk of type 2 diabetes (2), cardiovascular disease (3) and some cancers (4). Psychological health is also impacted by obesity and increased levels of depression (5), anxiety (6) and lowered self-esteem (7) are commonly associated factors. The rise, in recent years, in the incidence of psychological and emotional distress has also been linked with a detrimental effect on weight loss behaviours (25). Though causality between weight and psychological distress is not clearly understood, individuals with obesity are more susceptible to experiencing body dissatisfaction, stigma and low self-esteem (26).

In the search for effective treatment strategies to address the issue of obesity, community-based models have traditionally incorporated combinations of nutritional, behavioural and, more recently, cognitive change components. To date, multidimensional interventions of this type have achieved modest outcomes, typically reporting 5-10% weight loss (8). Though the achievement of weight loss in this range is associated with clinically significant health benefits among individuals with obesity (9, 10), weight loss maintenance over time has been found to be generally poor, with longitudinal research reporting weight regain among 50% of individuals completing a behavioural weight loss intervention within the past 6-12 months (11-13). Emerging evidence has also brought to light the increased biological and psychological challenges in achieving weight maintenance faced by those who have previously been overweight or obese (14), though evidence for a 'set point' theory of weight relapse – which describes a biological 'pull' toward a predetermined weight set by the body's regulation control function - remains mixed (15). Compounding this effect, individuals who regain lost weight are more likely to overeat in response to negative emotional states and as a coping strategy when faced with problems (16-18).

Factors influencing obesity are complex and range across social, cognitive, biological and environmental domains, amongst others (19, 20). It is clear, however, that sustainable weight control requires an ongoing and consistent commitment to engaging in weight loss behaviours. Given the often elusive nature of weight loss maintenance, a rethinking of the factors and strategies which both enable and inhibit weight loss behaviours over the long term is due (21). A renewed approach is further warranted against the backdrop of an increasingly "obesogenic environment" in which the ready availability of energy dense, palatable foods has contributed in making dietary restraint more pressurised, whilst coupled by an increase in sedentary behaviours (22-24).

Cognitive resource, like a muscle, is limited and quickly depleted, and individual efforts to pursue and sustain weight loss behaviours carry a cognitive energy "cost" (27). Within the context of modern day living, in which intrinsic priorities relentlessly compete with powerful external drivers such as social norms, expectations and the environment, self-control is continuously under threat as ongoing efforts are made to engage in 'healthy' or 'normalised' behaviours. Through this lens it is therefore perhaps unsurprising that depletion of cognitive resource has been strongly linked to behavioural tendencies such as overeating by dieters (28). For example, in studies investigating the effect of dietary restraint on subsequent behaviours, dieters ate more after engaging in a self-regulation task (i.e. exercising restraint) as compared to non-dieters, who ate the same amount whether their self-control system was depleted or not (29).

If a lack of adherence to weight loss behaviours is, in part, attributed to a depleted self-regulation system, then strategies to minimise this effect could strengthen endeavours and initiatives which seek to achieve weight maintenance over the long term. Emerging within the "third wave" of cognitive therapies the body of evidence for Acceptance and Commitment Therapy (ACT) (30) established over the past 17 years, lends support for the model in the effective treatment of a broad range of problems, including chronic pain, depression, anxiety and substance abuse (31, 32). Acceptance and Commitment Therapy in practice is represented through the application of six core processes: acceptance; cognitive defusion; self as context; contact with the present moment (i.e. mindfulness); committed action, and values. With a core focus on defusing pressures of restraint through increasing tolerance of aversive sensations and a concentrated move toward value oriented behaviours, acceptance-based strategies provide a pragmatic prospect for obesity interventions. Acceptance-based strategies reflect a departure away from cognitive behavioural models in that they do not seek to challenge or change thoughts directly, but rather encourage mindful awareness of them from a distance (33). The acceptance of experiences such as thoughts or emotions - without avoidance, restraint or suppression of them – fosters psychological flexibility and has the effect of reducing affective-cognitive load, thus serving to minimise depletion of the self-control system and support value driven behaviours (34). Indeed, the degree to which one can accept, rather than seek to avoid such experiences, has been identified as a strong predictor of health and psychological outcomes (35) and has also been linked to weight maintenance in naturalistic studies (13). Whilst several reviews investigating the efficacy of ACT in the treatment of diverse issues have recently emerged (32), its analysis within the context of behavioural weight management interventions has, to date, been lacking. To address the current gap in the literature, this paper seeks to identify and synthesise findings from weight management interventions which have incorporated

ACT principles. A broad review of the empirical research is presented here to examine its utility and gain insight into the acceptance-based mechanisms which lead to successful outcomes. It is hoped that the findings may help to inform future directions for obesity interventions and deepen the research base related to ACT.

4.3 Methods

4.3.1. Study Selection

A systematic literature search was conducted in March-April 2017. As an exploratory investigation into the link between ACT and weight management the review incorporated broad inclusion criteria in order to maximise the breadth of findings and reduce potential publication bias. Published literature was identified by searching a range of online bibliographical databases, which are listed in full in Table 4.1. Unpublished literature was identified through a search of the ProQuest – dissertations and theses - database. Publication dates were restricted to 1999, when ACT was first fully conceptualised and manualised (30). A list of keywords and search terms was compiled and adapted for use in each database. Search terms relating to 'Acceptance and Commitment' were entered in conjunction with terms relating to weight or obesity, and divided into 3 categories; 1) 'Acceptance and Commitment' 2) 'Overweight and Obese', and 3) 'Weight'. The Boolean phrase 'AND' was used between groups (e.g. Acceptance and Commitment AND weight), and the phrase 'OR' used within groups (e.g. overweight OR obese). For the current review, studies were judged for eligibility on the following inclusion and exclusion criteria:

Inclusion criteria:

a) Intervention studies involving a behavioural weight management intervention with intent to change behaviour or lifestyle, and which implemented **at least two or more** of the following six core components of Acceptance and Commitment Therapy: Acceptance; cognitive defusion; self as context; contact with the present moment (i.e. mindfulness); committed action, and values. This approach was aimed at enabling adequate breadth of review, whilst ensuring that included studies reflected more than one strand of the ACT model.

b) Intervention studies specifically designed with the objective outcome of achieving weight loss or weight maintenance. Primary outcomes for included studies measured as weight change, or intervention baseline weight and post intervention time point, and reported weight in kilograms or pounds.

c) Studies which targeted individuals who were overweight or obese according to body mass index (BMI) cut-offs (i.e. BMI >25)

d) Published and unpublished literature – including dissertations and theses – irrespective of study design or comparison condition. Intervention studies of all design types, from RCTs to case studies were included within this review.

e) Studies conducted and presented in English

Exclusion criteria:

a) Types of obesity interventions not focused on lifestyle or behavioural change, including bariatric surgery and anti-obesity medication

b) Studies utilising mindfulness-based cognitive therapy (MBCT) as this intervention incorporates cognitive change elements that are divergent from the ACT model, and has an enhanced focus on mindfulness. Further, studies on mindfulness and weight loss have already been conducted on individual processes such as mindfulness (36)
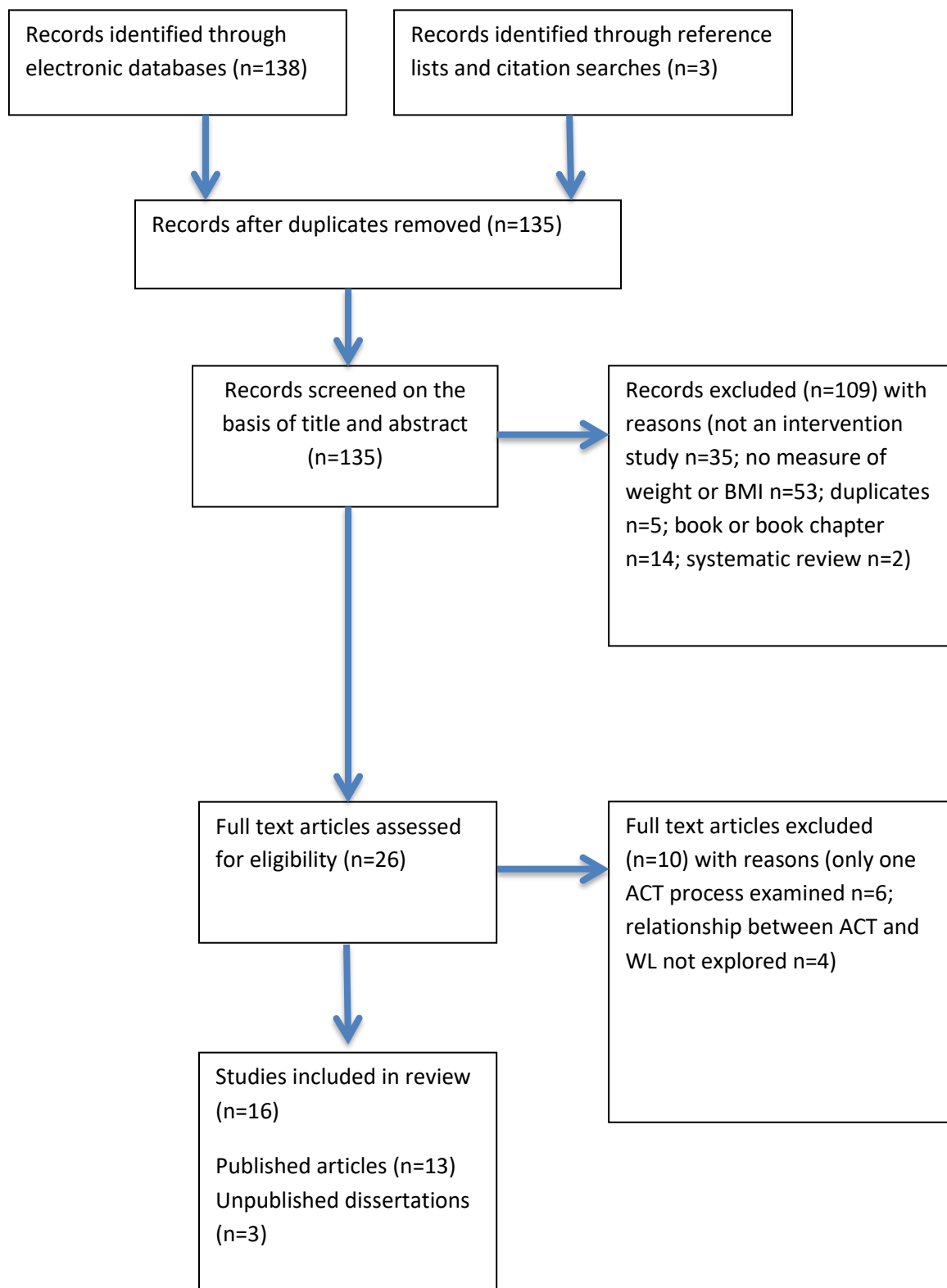
Table 4.1. Search Strategy

Databases searched	Interface	Coverage
PsychINFO	EBSCO Host	1999-April 2017
CINAHL Plus	EBSCO Host	1999-April2017
MEDLINE	EBSCO Host	1999-April 2017
EMBASE	Ovid SP	1999-April 2017
Web of Science	ISI WoKnowledge Platform	
Google Scholar		
OR	AND	AND
	OR	OR
1) Acceptance and Commitment	2) Overweight and Obese	3) Weight
Acceptance and Commitment ACT Accept* Mindful*	Overweight Obese	weight 'weight loss' 'weight control' 'weight reduction' 'weight management' 'weight maintenance' 'weight perception'

Screening procedures

Articles were judged for eligibility first on article title, then abstract, and finally full-text article. Titles and abstracts of citations attained from initial searches were subjected to the above inclusion and exclusion criteria, and screened for duplicates and relevance by the lead author (KK). Full-text articles were then retrieved for all remaining records (n=26) and reviewed against the inclusion and exclusion criteria. Reference lists of all the articles included in the review were searched to identify

additional eligible studies, and three further papers were identified in this way. Figure 3 outlines the flow of this process:

| Records identified through electronic databases (n=138) | Records identified through reference lists and citation searches (n=3) |

Records after duplicates removed (n=135)

| Records screened on the basis of title and abstract (n=135) | Records excluded (n=109) with reasons (not an intervention study n=35; no measure of weight or BMI n=53; duplicates n=5; book or book chapter n=14; systematic review n=2) |

| Full text articles assessed for eligibility (n=26) | Full text articles excluded (n=10) with reasons (only one ACT process examined n=6; relationship between ACT and WL not explored n=4) |

Studies included in review (n=16)

Published articles (n=13)
Unpublished dissertations (n=3)

Figure 3. Flowchart showing the process of study selection

4.3.2. Data Extraction and Synthesis

For all studies meeting the inclusion criteria, data were extracted and tabulated (Table 4.2). Data extracted included author and publication year; study quality, intervention length, ACT core processes included in the intervention, and; weight outcomes.

To assess outcomes of interest from a 'birds eye' view, studies were first grouped by research design into one of two categories – a) RCT's, offering a 'gold standard' in testing intervention efficacy (37), and b) uncontrolled, single design studies. Studies were also grouped into 'high exposure' (8-32 sessions) and 'medium/low exposure' (<8 sessions) categories in order to determine any intervention duration effect. Separate grids were created to cross reference other outcomes of primary interest across studies, and included the following dimensions: 1) weight loss outcomes at three time points (intervention end, 6 and 12 months), 2) facilitator level, 3) number of ACT processes present, and 4) retention rates. Data were described in a narrative summary, with emphasis given to outcomes from RCT's. Results were not continuous and weight loss outcomes were reported on various scales (e.g. weight loss, measured in lbs, kgs and % body weight), therefore an aggregated result based on mean differences between intervention and control could not be calculated.

Table 4.2. RCT vs Uncontrolled Studies (High Treatment Exposure – Mid/Low Treatment Exposure)

RCT's – High Treatment Exposure					
Author	**Quality Rating**	**Intervention Length**	**Sample**	**ACT Processes**	**Weight Outcomes**
1) Lillis J., Niemeier H.M, Graham Thomas J., Unick J., Ross K.M., Leahey T.M., Kendra K.E., Dorfman L., and Wing R.R. (2016) *USA*	Medium	32 sessions over 1 year: (Weekly – months 1-6; Biweekly – months 6-9; Monthly – months 9-12). 1-hr sessions	n=162 (BMI 30-50)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Weight loss at 24 months: -4.1% (SE=0.88 for ABBI, compared with -2.4% (SE=0.87) for SBT (p=0.204) ABBI regained less weight from the end of treatment to final follow up (4.6 vs 7.1kg). A significantly higher proportion of ABBI participants achieved 5% weight loss (38% vs 25%; p=0.038) at 24 months
2) Forman E.M., Butryn M.L., Manasse S.M., Crosby R.D, Goldstein S.P, Wyckoff E.P. and Graham Thomas J. (2016) *USA*	High	25 sessions over 1 year: weekly (16 sessions), biweekly (5 sessions), monthly (2 sessions), bimonthly (2 sessions). 75-minute sessions	n=190 (BMI 27-50)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Weight loss at 12 months - 13.3% in ABT compared with -9.8% in SBT (p=0.005) ABT participants also more likely to maintain 10% weight loss at 12 months (64.0% vs 48.9%; p=0.04)
3) Forman E.M., Butryn M.L., Juarascio A.S., Bradley L.E., Lowe M.R., Herbert J.D., Shaw J.A. (2013) *USA*	High	Weekly. 40 weeks. (Sessions 1-20); Bi-weekly (Sessions 21-40). 30, 75-minute sessions	n=128 (BMI 27-40)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Weight loss at 40 wks: -13.17% ABT vs -7.54% SBT (p=0.01) Follow up (6 months): -10.98% vs -4.83% SBT (p=0.01)
4) Sairanen E., Tolvanen A., Karhunen L. *et al.* (2015) *Finland*	Medium	Weekly. 8, 90 min sessions	n=306 (BMI 27-39)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values	Inverse correlation between BMI and both intuitive eating factors and acceptance related to weight (but not with general psychological flexibility)

				6. Committed Action	
5) Katterman S.N., Goldstein S.P., Butryn M.L., Forman E.M., Lowe R.L. (2014) *USA*	High	Weekly (Sessions 1-5); Monthly (Sessions 6-8). 8, 75-minute sessions	n=58 (BMI 23-32)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Intervention group showed weight increase of +1.07kg at 1 year follow up compared with -2.24kg weight loss among control group (p=0.008)
6) Katterman S.N. (2012) *USA*	Medium	8, 75-minute sessions. 16 weeks (4-7 participants per group)	n=84 (BMI 23-30)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Mean weight loss of -4.25lbs at 16 weeks compared with +0.19lbs weight gain in control group (p=0.27)

RCT's – High Treatment Exposure						
Weight Loss	**Intervention End**	**6 months**	**12 months**	**Delivered by**	**ACT Present**	**Retention** *Follow up*
1) %WL	No weight loss		-4.1% (-2.4% control)	Ph.D. psychologists, Ph.D. exercise physiologists, masters level nutritionists	6	**89% retention** *78% (24-month FU)*
2)			-13.3% (-9.8% control)	Doctoral level clinicians	6	**84% retention** *78% (12-month FU)*
3)	-13.17% (7.54% control)	-10.98% (4.83% control)		Novice (doctoral students) Experts (clinical psychologists)	6	**77% retention** *64% (6-month FU)*
4)					6	**94% retention** *77% (3-month FU)*
5)	+1.07kgs (1.17<control)			Graduate students	6	**81% retention** *64% (1-year FU)*
6)	-4.25lbs (+0.19lbs control)			Graduate students	6	**81% retention** *No FU*

RCT's – Mid/Low Treatment Exposure					
Author	**Quality Rating**	**Intervention Length**	**Sample**	**ACT Processes**	**Weight Outcomes**
7) Tapper K., Shaw C., Illsley, J., Hill, A.J., Bond F.W., Moore, L. (2009) *USA*		Monthly. 4, 2-hour workshops.	n=62 (BMI>20)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Mean weight loss in intervention group equivalent to -2.32kgs, -1.35kg more than control (p=0.054)
8) Lillis J., Hayes S., Bunting K., Masuda A. (2009) *USA*	High	1 day, 6 hr workshop	n=87 (Mean BMI 32.50)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Mean weight loss of 1.5% in intervention group compared with 0.3% weight gain in control (p<0.01)
9) Fletcher L. (2011) *USA*	Medium	1 day, 6 hr workshop	n=72 (BMI Unreported)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Significant weight loss of -4.5lbs observed in intervention group and -3.9lbs in control group (p=0.049), but no significant difference between groups

RCT's – Mid/Low Treatment Exposure						
Weight Loss	**Intervention End**	**6 months**	**12 months**	**Delivered by**	**ACT Present**	**Retention** *Follow up*
1) Kgs	-2.32kgs (-0.97kg control)			Graduate student	6	**100% retention** *100% (12-month FU)*
2) %WL	-1.5% (+0.3% control)			Senior paper author and graduate student in clinical psychology	6	**97% retention** *97% (3-month FU)*
3) Lbs	-4.5lbs (-3.9lbs control)			Qualified doctoral level graduate students experienced in ACT	6	**81% retention** *81% (3-month FU)*

Uncontrolled (single group design) – High Treatment Exposure

Weight Loss	Intervention End	6 months	12 months	Delivered by	ACT Present	Retention *Follow up*
1) Kgs	-12kgs			Ph.D.-level clinical psychologist	6	**86% retention** *86% (3-month FU)*
2)	Not significant			Licenced psychologist	6	**86% retention** *52% (3-month FU)*
3) %WL	6.6%	9.6%		Psychologist and doctoral student in clinical psychology	6	**65.5% retention** *48% (6-month FU)*
4) Lbs	None reported				4	**58% retention** *No FU*

Uncontrolled (single group design) – Mid/Low Treatment Exposure

Author	Quality Rating	Intervention Length	Sample	ACT Processes	Outcomes
14) Dalen J., Smith B.W., Shelley B.M., Sloan A.L., Leahigh L., & Begay D. (2010) *USA*	Low	Weekly. 6, 2-hour sessions	n=10 (BMI>30)	1. Acceptance 2. Self as Context 3. Being Present	Significant mean weight loss of -4kgs observed following 12-week intervention (p<0.01)
15) Goodwin C. L., Forman, E. M., Herbert, J. D., Butryn M. L., & Ledley, G. S. (2012) *USA*	Medium	Weekly. 4, 90-min sessions	n=12 (BMI≥25)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Substantial reductions in absolute weight and BMI (d=0.13, -2.2kg; -0.77kg/m²)

16) Angiola J.E. (2013) *USA*	Low	Weekly. 4, 50 min sessions	n=6 (BMI 25>)	1. Acceptance 2. Cognitive Defusion 3. Self as Context 4. Being Present 5. Values 6. Committed Action	Lower BMI reported in four of six participants reported. Small weight loss over 3 months (<2kgs). Effect size unreported.

Uncontrolled (single group design) – Mid/Low Treatment Exposure						
Weight Loss	**Intervention End**	**6 months**	**12 months**	**Delivered by**	**ACT Present**	**Retention** *Follow up*
1) Kgs	-4kgs			Brian Shelly (MEAL curriculum author)	4	**100% retention** *90% (3-week FU)*
2)	-2.2kgs			Clinical psychology graduate students	6	**67% retention** *No longitudinal FU*
3)	<2kgs			Clinical psychology doctoral student	6	**100% retention** *100% (3-month FU)*

4.3.3. Quality assessment

A 4-item checklist was devised to assess methodological quality based on ad-hoc principles of internal and external validity and a total score calculated for each study. To ensure relevancy, quality scoring tool items were extracted from well-established and validated assessment tools including the Jadad scale (38), to form an adapted checklist (which included the following criteria: 1) study was an RCT (Yes=1, No=0); 2) study reported statistical analyses of the relationship between changes in ACT and weight change (Yes=1, No=0); 3) study used a validated measure of ACT, and; 4) weight measure assessed by research staff or self-reported (research staff=1, self-reported=0). If information was missing or a study did not explicitly report information, it was assigned '0' for that item. The quality of a study was assessed as 'high' when all four criteria were met, 'medium' when 2-3 criteria were met and 'low' when 1≤ criteria were met.

4.4 Results

The initial search protocol returned 138 studies. One hundred and thirty-five papers were considered potentially eligible based on title and were subject to a review of their abstracts and full text articles. Sixteen studies (13 articles and 3 dissertations) met all inclusion criteria and were included in the review. The majority of excluded studies were excluded on the basis of not being an intervention study and not being focused on weight loss, as shown in Figure 3.

4.4.1. Study characteristics

Table 4.2 summarises details for each of the 16 studies, including: study nature; format; design; sample size; population; intervention length; outcomes measures, and; summary findings. Studies were published in 2007-2017. Of the 16 studies included in the review, all were conducted in the United States except one, which was conducted in Finland (39). Participant age across all studies ranged between 18-70 years old. Studies included a mix of overweight and obese men and women, with BMI ranging from between 20-50. Of the 16 studies, five included female-only criteria, with all other intervention studies containing a majority or women.

Ten of the 16 studies described '*weight loss*' or '*weight*' as a given outcome of the study, with the remainder focused on *weight gain prevention* (n=1), or *weight control* (n=4). One study did not describe weight as a given outcome, but reported on BMI change (40). Study design included nine RCTs (39, 41-46); L Fletcher – unpublished data; S Katterman – unpublished data) and seven uncontrolled, observational studies (40, 47-51); JE Angiola – unpublished data). All studies recorded participant BMI or weight, except for Sairanen *et al.*, 2015 (39) which was part of a larger study

(Lappalainen, 2014 (52)). Nine studies included BMI or weight change as a primary outcome and all incorporated a formal weight loss phase. The length of weight loss treatment (excluding any post intervention maintenance phase) ranged from between one day (6 hr workshop) (44) and 32 sessions over 1 year (45). Post intervention follow up ranged from between five weeks (JE Angiola – unpublished data) and 12 months (45, 46) and the majority incorporated a follow up at one time point between 6 weeks and 6 months.

All studies included attendance data and, in total, 1,260 individuals took part in the 16 studies, with study sample sizes ranging from between six (JE Angiola – unpublished data) and 306 (39) participants. Ten of 16 study samples ranged in size from between 10 and 87 participants. The demographics of study participants varied significantly, and included students (46); S Katterman – unpublished data), people actively engaged in weight loss programmes (Fletcher – unpublished data; JE Angiola - unpublished data) and outpatient cardiac care unit patients (51). Study interventions were delivered by facilitators with varying levels of experience and expertise, including graduate students (43, 44, 46, 51); S Katterman - unpublished data), PhD or doctoral level students (48); L Fletcher - unpublished data; JE Angiola - unpublished data; (50), psychologists (39, 41) and nurses (49). Forman *et al*., 2013 (41) examined the differences in weight loss outcomes between interventions delivered by either a novice (advanced doctoral student) or expert (clinical psychologist) facilitator.

4.4.2. Study Findings

4.4.2.1. Intervention Duration ('Treatment Exposure')

Six studies were classed as 'high treatment exposure' (8-32 sessions) interventions and among these mean weight loss ranged between 10.98% over 40 weekly sessions and 12kgs over 24 weekly sessions (39, 41, 42, 45, 46, 48); S Katterman - unpublished data. This represented a significantly greater average weight loss as compared with 'mid/low treatment exposure' (<8 sessions) interventions, which ranged between 1.5% mean weight loss at 3 months following 1-day/6-hour workshop, and 2.32kgs mean weight loss at 6 months, following four, 2-hour workshops (40, 43, 44, 47-51) L Fletcher - unpublished data; JE Angiola - unpublished data).

4.4.2.2. Weight loss, or change in BMI

Nine of the 16 studies were RCTs and thus included a control condition. Six RCTs reported a strong intervention effect on weight, ranging from nearly twice as much weight lost (-13.17% ABT vs -7.54% SBT: *p*=0.01), up to approximately four times as much, when compared with the control group (-

4.25lbs vs +0.19lbs: $p>0.27$) indicating a possible moderating effect, though causality cannot be confirmed (41-44, 46); S Katterman - unpublished data). Eight studies specifically explored the mediation effects of individual ACT processes on weight loss (39, 41, 42, 44, 46, 48, 50, 51). Evidence of mediation was mixed, however a tentative effect on weight loss was observed. Specifically, five studies (40, 43, 44, 48, 50) identified a positive correlation between changes in either avoidance, psychological flexibility, or both, and weight loss post treatment and at follow up (up to 6 months). Two studies (41, 46) found no significant evidence of mediation on weight loss. One study, Lillis *et al.*, 2009 (44), found evidence for a mediation effect on weight loss acceptance related to weight (AAQ-W: $p<0.03$), but not in the general acceptance measure (AAQ: $p<0.16$).

The majority of studies (n=14) incorporated novel ACT-focused interventions, and all but two studies also included a core standard behavioural dimension, such as offering nutritional advice, portion control, and goal setting, for example (47, 49). The RCTs found weight control behaviours to be more sustainable when traditional behavioural weight loss strategies (SBT) were combined with acceptance-based strategies, over and above an SBT approach alone (e.g. Forman *et al.*, 2013 (41). One study, Dalen *et al.*, 2010 (47) however, reported weight loss even though behavioural strategies were not used. The follow up period in which weight loss data was collected post intervention ranged from between five weeks (JE Angiola - unpublished data) and 12 months (45, 46), with the majority of follow up procedures occurring between six weeks and six months. An assessment of weight loss outcomes at follow up showed mixed results. Of the RCT's reporting statistically significant weight loss at intervention end (n=4), two cited continued weight loss among intervention participants during the follow up period (41, 44) and two studies reported an effect at intervention end, but not during follow up (46); S Katterman – unpublished data) for example, reported a mean weight loss in the ACT condition at 12-month follow up (-2.24kgs, compared with a gain of 1.07kgs in the SBT control group), with 58% of control participants regaining at least 2.2kgs at 12 months, compared with only 11% of experimental participants.

A further two studies (42, 45) revealed significant weight maintenance at 12-month follow up, but not at intervention end. Specifically, Lillis *et al.*,2016 (45) observed an overall mean loss of -4.1% in the intervention group, compared with -2.4% among the SBT (control) group. Also of note, the intervention group regained less weight than control after 12 months (4.6kgs vs 7.1kgs). Similarly, Forman *et al.*,2016 (42) observed maintenance of weight loss over the course of the 12 month intervention, avoiding the 'upward deflection' (weight regain) witnessed in the control condition.

Of five uncontrolled studies reporting statistically significant weight loss at intervention end, four cited a continuation in weight loss during the follow up period (47, 48, 50); JE Angiola - unpublished data), and in one study with a correlational study design, follow up data was not established (51).

4.4.2.3. Facilitator level

Study interventions were delivered by facilitators with varying levels of experience and expertise, including graduate students (n=6), PhD or doctoral level students (n=5), psychologists (n=4) and nurses (n=2). An examination of effect sizes at intervention end failed to uncover differences in results based on facilitator. One study, Forman *et al.*, 2013 (41), however, explicitly assessed novice vs expert effect and findings demonstrated that ACT delivered by 'experts' produced 2.5 times the weight loss of a standard behavioural therapy (SBT), both at post intervention (p=0.02) and follow up (p<0.01).

4.4.2.4. ACT-related changes (linked to one of the six ACT processes)

All nine RCT's used novel combinations of acceptance-based and SBT for weight loss delivered within a group psycho-educational context. Five of the seven uncontrolled studies used novel combinations of acceptance-based and SBT for weight loss delivered within a group psycho-educational context. The remaining two studies were underpinned by a mindful-eating and mindfulness-based approach to weight loss, also within a psycho-educational setting (47, 49).

The majority of studies had a specific focus on all six ACT processes (n=14). Across the remaining two studies, four of six (49) and three of six ACT processes (47) were identified respectively. The number of process variables investigated in each study is outlined in Table 4.2. Seven studies reported statistically significant improvements in subscales relating to ACT components. Overall increases in levels of acceptance (44, 46-48, 50, 51), defusion (44, 48, 51) and mindfulness (47, 50, 51) were observed, though findings from Katterman *et al.*,2014 (46) showed eating related experiential acceptance to have decreased following the intervention.

4.4.2.5. Retention

All RCT's reported retention rates for the intervention period, which ranged from 58% (49) to 100% (43). Retention rates were not applicable for three studies (41, 44); L Fletcher - unpublished data, whose interventions were based on a 1-day workshop. Reported results for retention (at intervention end and follow up) are included in Table 4.2.

4.5 Discussion

Sixteen studies were identified and assessed in the current review. Of those, eleven reported statistically significant differences in weight loss, with average weight loss at intervention end across all studies ranging between -1.35kgs (43) and -12kgs (48). Though initial interpretation may lean toward a positive association, an assessment of methodological quality for each study rated four of the 16 studies as 'high' quality, eight as 'medium' quality and four as 'low' quality, limiting validity and generalisability of the findings (Appendix 4a, page 198).

Nine of the 16 studies were RCTs and most control conditions reflected an SBT-only intervention. As illustrated in Table 4.2, five of these studies reported a strong intervention effect with approximately twice the weight lost compared with the control group. Given that the remaining six studies adopted an uncontrolled single design method further comparison of performance against control was not possible, limiting the strength of the findings. Nonetheless, findings from comparison with control conditions in the current review provide initial evidence that ACT-based interventions may have a positive impact on weight loss.

These outcomes would appear to relate favourably with other concomitant cognitive therapies for weight loss. In a systematic review of 19 weight management interventions incorporating a mindfulness basis for weight loss treatment, for example, statistically significant weight loss was observed across 13 studies, though the strength of the relationship was limited by methodological factors (53). In a similar review of weight loss interventions incorporating mindfulness, Katterman *et al.*, 2014 (36) identified a reduction in symptoms of binge eating, though no significant effect on weight loss was observed.

If ACT principles do provide an effective approach in achieving sustainable weight loss, a question of 'how much ACT is needed?' becomes salient. Is there a dose-response effect? Though limited data was available to determine how participants engaged with and utilised ACT principles in their weight loss endeavours, intervention duration appeared to be an influencing factor, with greater weight reduction witnessed in 'high' exposure interventions. This correlation, however, is inconclusive as some 'mid/low' exposure interventions (including 1-day workshops) also led to similarly improved weight loss outcomes when compared with the control group (e.g. L Fletcher - unpublished data). These inconsistencies are of interest in the context of existing literature which identifies a weak correlation between number of sessions and the degree of clinical change (54). Moreover, according to studies investigating cognitive therapy treatments across domains including depression (55),

binge eating (56), and post-traumatic stress disorder (57), individuals are most likely to experience noticeable improvements within the first two to four treatment sessions.

Retention rates ranged from between 58% to 100% across studies however variability in reporting methods for attendance and retention data may have increased bias in estimates of the treatment effect resulting from ACT training. Criteria for classifying participants as intervention 'completers', for example, varied significantly and was unreported in several instances. Information on frequency and depth of ACT practice by participants post intervention was generally also lacking, though at least two studies observed a practice effect, leading to significantly greater reductions in BMI when ACT workshop principles were either implemented 'more than never' (43) or when an ACT manual provided was read 'five or more times' (44).

Results from the follow up period in which weight loss data was collected post intervention were mixed, with nine of the eleven studies reporting continued weight loss during that period. Given their limited scale, these observations alone are insufficient to offer conclusive evidence, however the findings are worthy of further exploration and offer tentative support for the influential effect of ACT in providing sustainable weight loss.

Criteria for the review was based on study interventions incorporating a minimum of two of the six ACT processes (i.e. acceptance, cognitive defusion, self as context, being present, values, and committed action). Whilst the majority of studies included all six ACT process variables, no differences in weight loss were observed between studies incorporating all six ACT components and those with fewer than six. Despite inherent methodological challenges in parsing out distinct components, findings from experimental studies testing ACT processes lend support for the efficacy of their individual and combined use in changing specific behaviours. For example, in a meta-analysis of 16 studies examining the acceptance component of ACT alone, or in combination with other components (e.g. values or defusion), a large effect size was observed linking specific improvements in acceptance with increased persistence in re-taking a test (58). Given the importance of sustained action in the context of long term weight management, further exploration of acceptance as an individual process, therefore, may provide an initial point of interest.

In examining the association between changes in ACT processes and weight, a potential moderating effect was observed. Randomised control trials found weight control behaviours to be more sustainable when traditional behavioural weight loss strategies (SBT) were combined with

acceptance-based strategies, over and above an SBT approach alone (e.g. Forman *et al.*, 2013 (41)). One study, however, reported weight loss even though behavioural strategies were not used (47). The biases inherent in self-report are well-documented (59) and potential bias in self-reported outcomes following ACT training may have been significant. Though trained staff members were responsible for data collection during the intervention period, across many studies collection methods during follow up were either unreported or conducted via self-report. Greater robustness in such follow up procedures, through ensuring data collection by trained staff members, for example, would help to provide a more accurate picture of the effect of ACT-based interventions on weight loss over the long term.

Though more than half of the studies featured 'weight' as a primary outcome measure, differences in weight loss were evident when comparing primary and secondary outcome measures. Differentiation in the terms used to define 'weight' outcomes also varied, but did not appear to reflect any changes in theoretical approach within each intervention. Providing greater clarity of these terms and a theoretical basis for targeting specific objectives (e.g. 'weight loss' vs 'weight control') could help to increase understanding of the mechanisms that underpin them. Study populations included within the current review were wide-ranging and represented a diverse demographic. Though weight loss was observed across a range of study populations, including students (46); S (Katterman - unpublished data) people actively engaged in weight loss programmes (L Fletcher - unpublished data; JE Angiola - unpublished data), and outpatient cardiac care unit patients (51), and across variability in BMI ranging from BMI>20 to BMI>40, no objective differences in weight loss were identified between these groups following ACT training. Forman *et al.*, 2013 (41), in assessing baseline participant symptomatology, provided some indication that symptomatology of intervention participants may have had an influencing role in ACT-facilitated weight loss outcomes. Due to the limited depth of available research and in seeking to reduce potential publication bias both published and unpublished literature was searched within the current review. Of the 16 papers included, three were unpublished dissertations. Given the exploratory nature of this review each of these unpublished works provided important 'pilot' insights and, indeed, articulated findings which were equivalent to the published studies. Without peer review, however, issues around scientific rigour could be brought into question and future reviews which address published work only would provide greater empirical reliability. Due to capacity constraints within the current review, double screening of identified papers following the initial search was not undertaken and thus represents a further limitation. In assessing methodological quality of chosen papers, it was estimated that a modified scale based upon ad-hoc principles would offer more relevant representation of the

elements which the current review set out to examine, which may have also negatively impacted the rigour of the review findings.

4.5.1. Future Research

Randomised control trials represent an effective method in research analysis (Cartwright, 2007) and future studies incorporating this design could be helpful in validating and advancing existing findings. A more complete understanding of the influence of ACT on weight loss would be further supported by comparison control conditions which addressed potentially confounding study level variables, such as number and duration of sessions, and personal time spent practicing ACT. Though the evidence base continues to build, clear reporting of study level variables remains a critical step in analysing how ACT processes are moderated and the conditions under which they have most influence. Developing further insights into the necessary 'dosage' of ACT training required on a weight management intervention is relevant from both a practical application and resource capacity perspective. Behavioural health services are becoming increasingly focused in the search for briefer interventions, with the introduction of approaches such as Functional Acceptance and Commitment Therapy (FACT), for example (60). Longitudinal analysis of these factors may help to more reliably determine optimal treatment length of ACT-based weight management interventions and their longer term impact.

Delineating the mediating effects of individual ACT strands on weight loss represents a significant methodological challenge and identifying methodologies which seek to overcome clustering effects and achieve greater control of the study variables will be essential to improving the strength of outcome data in future research. Experimental studies investigating the predictive value of ACT strands, 'bootstrapping' techniques (61) and constructive research design (in which control groups receive all except one of the six ACT processes (e.g. acceptance) while the intervention group receives all of them) could offer a path to determining the treatment effect of ACT in isolation, though such approaches would not be impervious to similar challenges of delineation.

Though measuring the influence of ACT on weight loss across different BMI populations was not within the scope of the current review, specifying this link within future research could help to further the design of more targeted interventions. This approach would require a specific focus on pre-intervention starting weight of participants, which was mostly unreported in the studies reviewed. Similarly, few studies in the review explored baseline participant symptomatology, though one study, Forman *et al*., 2013 (41) highlighted a significant reduction in symptoms of depression. Though causality in the context of weight remains unclear, the efficacy of ACT in treating depression

has been shown strongly elsewhere (62) and the observation in the current review provides an avenue for future exploration to develop more targeted interventions in this respect. Further research with larger sample sizes and more diverse populations could hold significant value, both in seeking to validate these findings and in determining ways to engage subgroups optimally. Self-reliance and intrinsic motivation are often most strongly associated with long term behaviour change (63, 64) and, with the fundamental alignment of ACT principles in developing such characteristics, it is possible that positive behavioural outcomes following an ACT-based intervention may be delayed. Given the high rates of participants lost to follow up post-intervention, qualitative feedback may also provide useful insight into patient experience. Incorporating this methodology in future studies could be helpful to shed light on the individual experience of people using ACT, and mechanisms of the treatment that could make it more likely to engage some more than others.

4.5.2. Summary

Though standard behavioural therapy (SBT) approaches delivered in silo can typically achieve short term weight loss outcomes of between 5-10%, weight regain is common following such interventions (8). Evidence for psychological approaches as an effective treatment to obesity is mounting and studies included in this review, and elsewhere, advance this case.

Whilst still a relatively new area of research, the current review holds promise for the use of acceptance-based interventions as an effective approach for sustainable weight loss, over and above results of standard behavioural strategies alone. Across the RCTs included in the review (n=9), there was a strong intervention effect on weight loss when compared to controls (SBT-only condition), with approximately a minimum of twice the weight loss observed when ACT principles supplemented SBT approaches, or were delivered independently. Intervention effect was also positively linked with duration, and longer interventions observed greater weight loss reduction at equivalent time points. Reported practice of ACT principles by participants also led to stronger weight loss outcomes, and a strong 'expert' effect was also witnessed, with weight loss outcomes significantly improved when ACT training was delivered by an expert, as compared with a novice facilitator. The review also offers positive initial indications for the efficacy of the approach over the longer term (currently up to one year).

In contrasting the efficacy of ACT as a treatment for weight loss with other empirically supported treatments such as CBT, comparable effect sizes have been observed (65). The outcomes of the current paper also reflect the observations of similar reviews on other ACT-based treatments (66).

ACT training would, therefore, appear to offer an effective framework in a weight management context and is increasingly being integrated within such programmes.

Several limitations and areas of methodological concern have been identified, with suggestions which seek to address possible gaps also provided. Identifying more robust methods of measuring the structural features of ACT remains necessary in order to proffer existing findings in a more scientifically sound sense. Further analysis of controlled conditions - through conducting comparison condition weight loss trials, for example – will help to clarify the degree to which ACT constructs actively influence weight loss in tandem with other components (e.g. SBT), as well as the underlying mechanisms driving these effects. Investigation of such factors will be significant in strengthening the validity and efficacy of ACT-based models for weight management. Further clinical and empirical attention is clearly warranted and future research incorporating larger samples, compliance data, and controlled comparison conditions will be helpful in validating current findings and establishing firmer conclusions with which to better inform the intervention literature.

Conflict of Interest Statement

No conflict of interest was declared.

Author contributions

Author, Khalil Kseib, conducted the review process, reviewed all articles, and wrote all sections of the manuscript. Collaborative meetings with academic supervisors, Dr Catherine Sykes and Dr Angeliki Bogosian, provided feedback and suggestions on multiple drafts, as well as general support.

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4.7 Appendices

Appendix 4a: Quality Assessment Checklist

Study Title	Quality Questions	Yes	No	Score
1) Lillis J., Niemeier H.M, Graham Thomas J., Unick J., Ross K.M., Leahey T.M., Kendra K.E., Dorfman L., and Wing R.R. (2016) *USA*	1) study was an RCT?	1		2 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?		0	
	4) follow up weight measured by research staff (vs self-report)?	1		
2) Forman E.M., Butryn M.L., Manasse S.M., Crosby R.D, Goldstein S.P, Wyckoff E.P. and Graham Thomas J. (2016) *USA*	1) study was an RCT?	1		4 (High)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
3) Forman E.M., Butryn M.L., Juarascio A.S., Bradley L.E., Lowe M.R., Herbert J.D., Shaw J.A. (2013) *USA*	1) study was an RCT?	1		4 (High)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
4) Sairanen E., Tolvanen A., Karhunen L. et al (2015) *Finland*	1) study was an RCT?	1		2 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?		0	
5) Katterman S.N., Goldstein S.P., Butryn M.L., Forman E.M., Lowe R.L. (2014) *USA*	1) study was an RCT?	1		4 (High)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
6) Katterman S.N. (2012) *USA*	1) study was an RCT?	1		3 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	

	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
7) Tapper K., Shaw C., Illsley, J., Hill, A.J., Bond F.W., Moore, L. (2009) *USA*	1) study was an RCT?	1		3 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
8) Lillis J., Hayes S., Bunting K., Masuda A. (2009) *USA*	1) study was an RCT?	1		4 (High)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
9) Fletcher L. (2011) *USA*	1) study was an RCT?	1		3 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
10) Neimeier H.M., Leahey T., Reed K.P., Brown R.A., Wing R.R. (2012) *USA*	1) study was an RCT?		0	3 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
11) Berman M.I., Morton S.N. & Hegel, M.T. (2016) *USA*	1) study was an RCT?		0	0 (Low)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?		0	
	4) follow up weight measured by research staff (vs self-report)?		0	

12) Forman E.M., Butryn M.L., Hoffman K.L., & Herbert J.D., (2009) *USA*	1) study was an RCT?		0	3 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
13) Kidd L.I, Graor C.H. & Murrock C.J. (2013) *USA*	1) study was an RCT?		0	1 (Low)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?		0	
	4) follow up weight measured by research staff (vs self-report)?	1		
14) Dalen J., Smith B.W., Shelley B.M., Sloan A.L., Leahigh L., & Begay D. (2010) *USA*	1) study was an RCT?		0	1 (Low)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	3) study used validated ACT process measures?		0	
	4) follow up weight measured by research staff (vs self-report)?	1		
15) Goodwin C. L., Forman, E. M., Herbert, J. D., Butryn M. L., & Ledley, G. S. (2012) *USA*	1) study was an RCT?		0	3 (Medium)
	2) study reported statistical analyses of the relationship between changes in ACT and weight change?	1		
	3) study used validated ACT process measures?	1		
	4) follow up weight measured by research staff (vs self-report)?	1		
16) Angiola J.E. (2013) *USA*	1) study was an RCT?		0	1 (Low)
	2) study was published?		0	
	3) study reported statistical analyses of the relationship between changes in ACT and weight change?		0	
	4) study used validated ACT process measures?	0		
	5) follow up weight measured by research staff (vs self-report)?	1		

Qualification in Health Psychology (QHP) Stage 2

Research – Submitted Manuscripts

Evidence submitted:

    (iii)   A supplementary 10,000 words in submitted manuscripts for peer-review journals separate from the main thesis

Word Count: >10,000

**Appendix A: Interview with Professor Kirk Strosahl, Co-founder of Acceptance and Commitment Therapy**
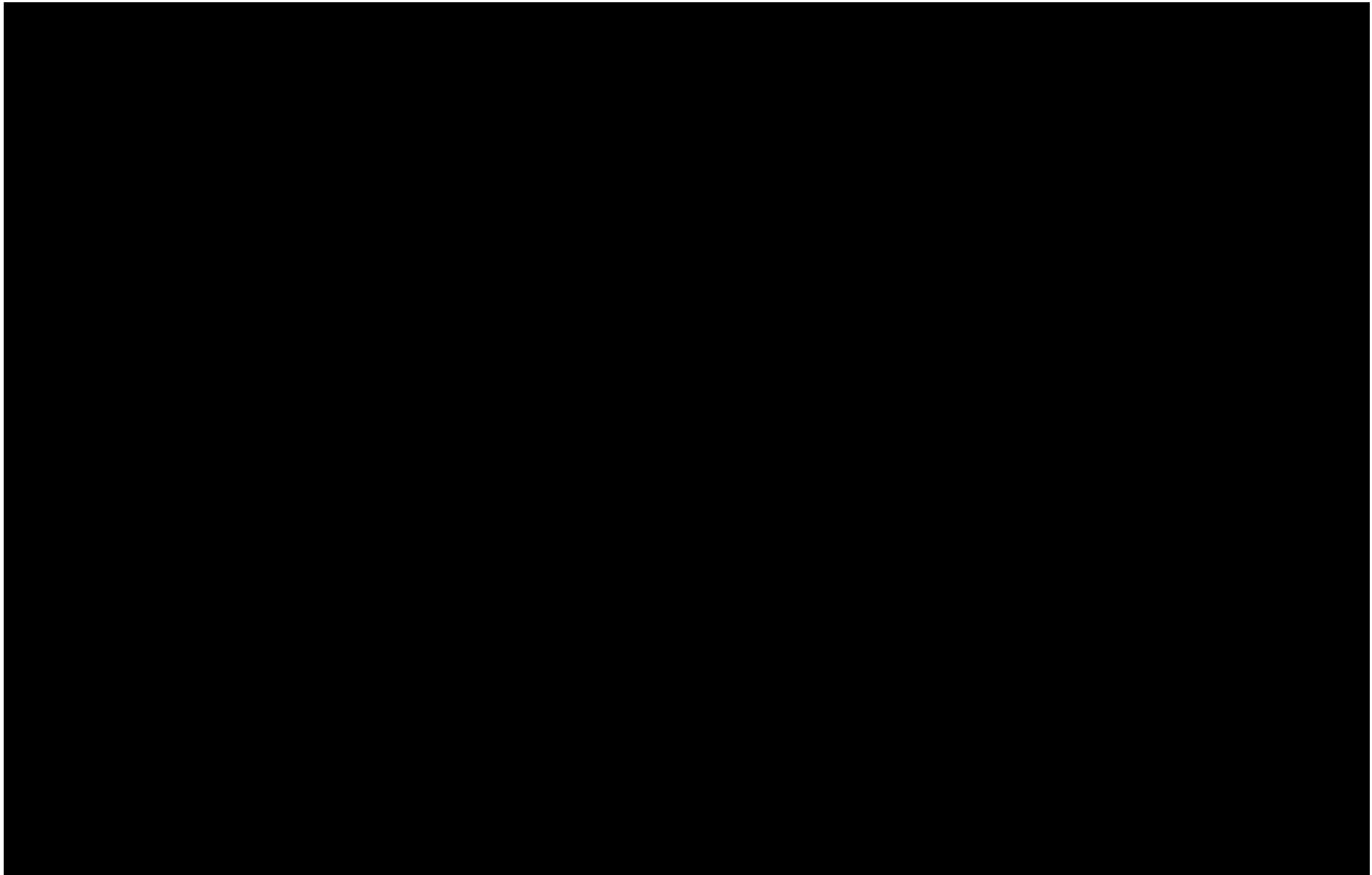
Appendix B: Blog authored for publication in Health Psychology in Public Health Network Newsletter
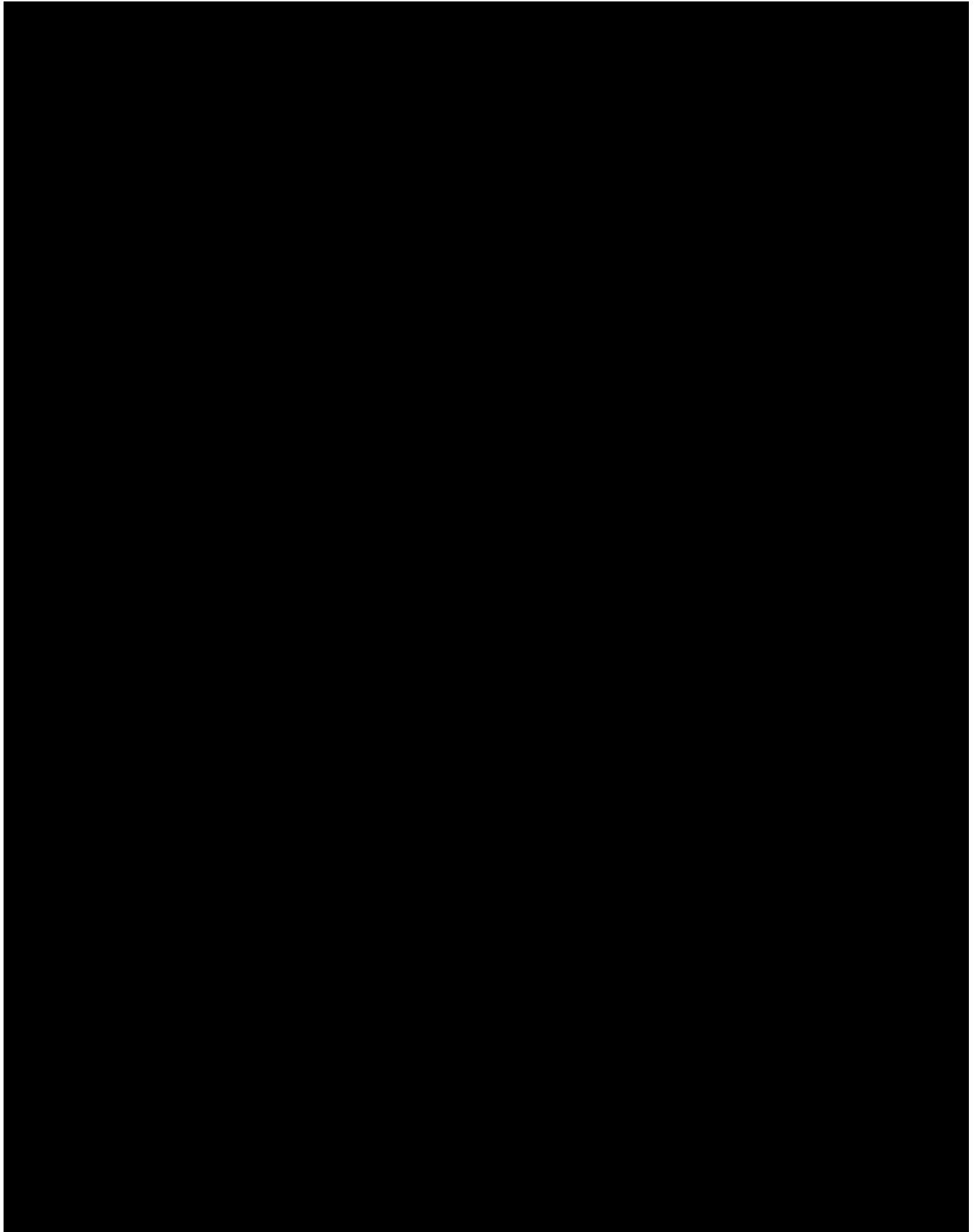
Appendix C: Interview with Professor Steven C. Hayes, Co-founder of Acceptance and Commitment Therapy

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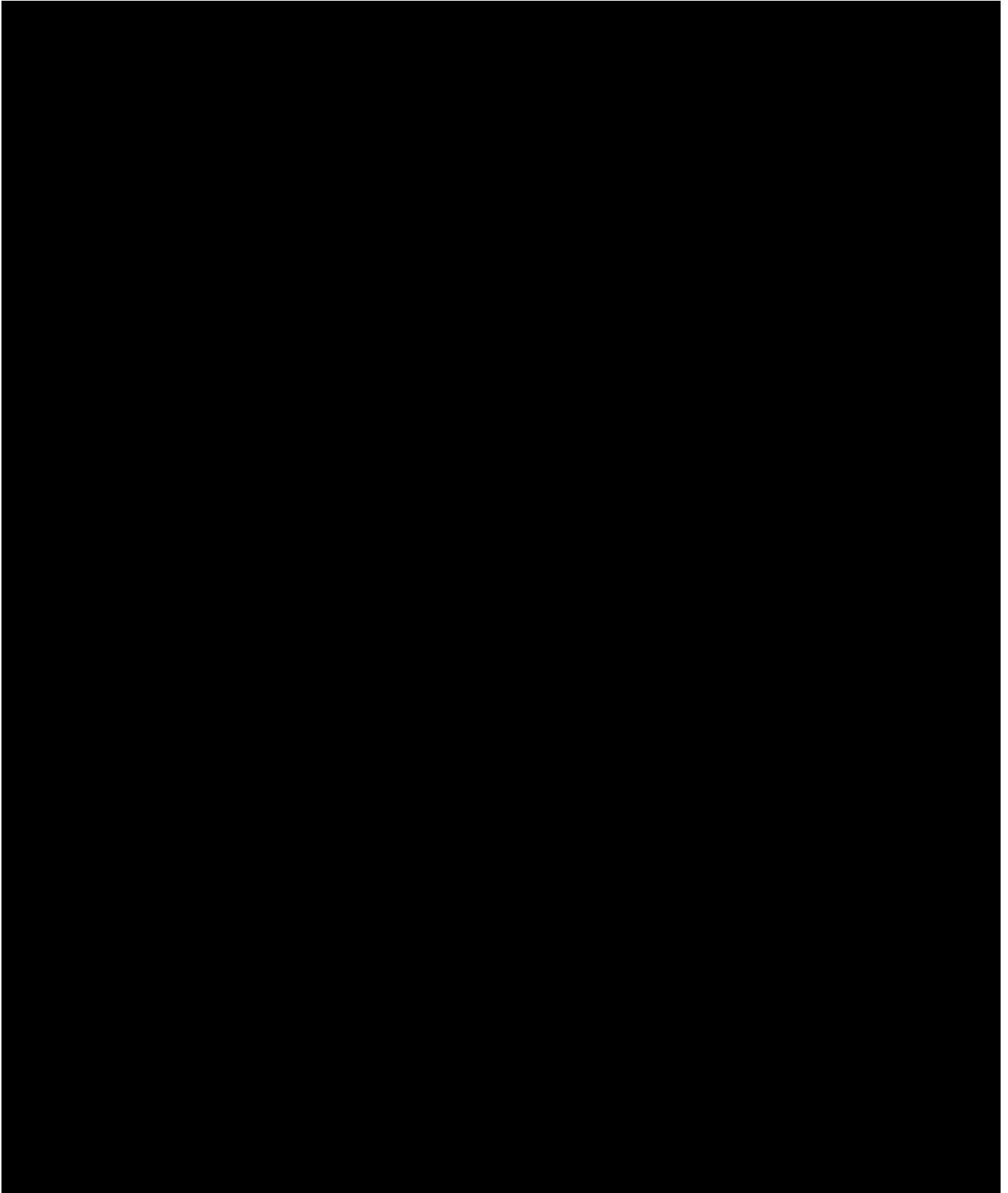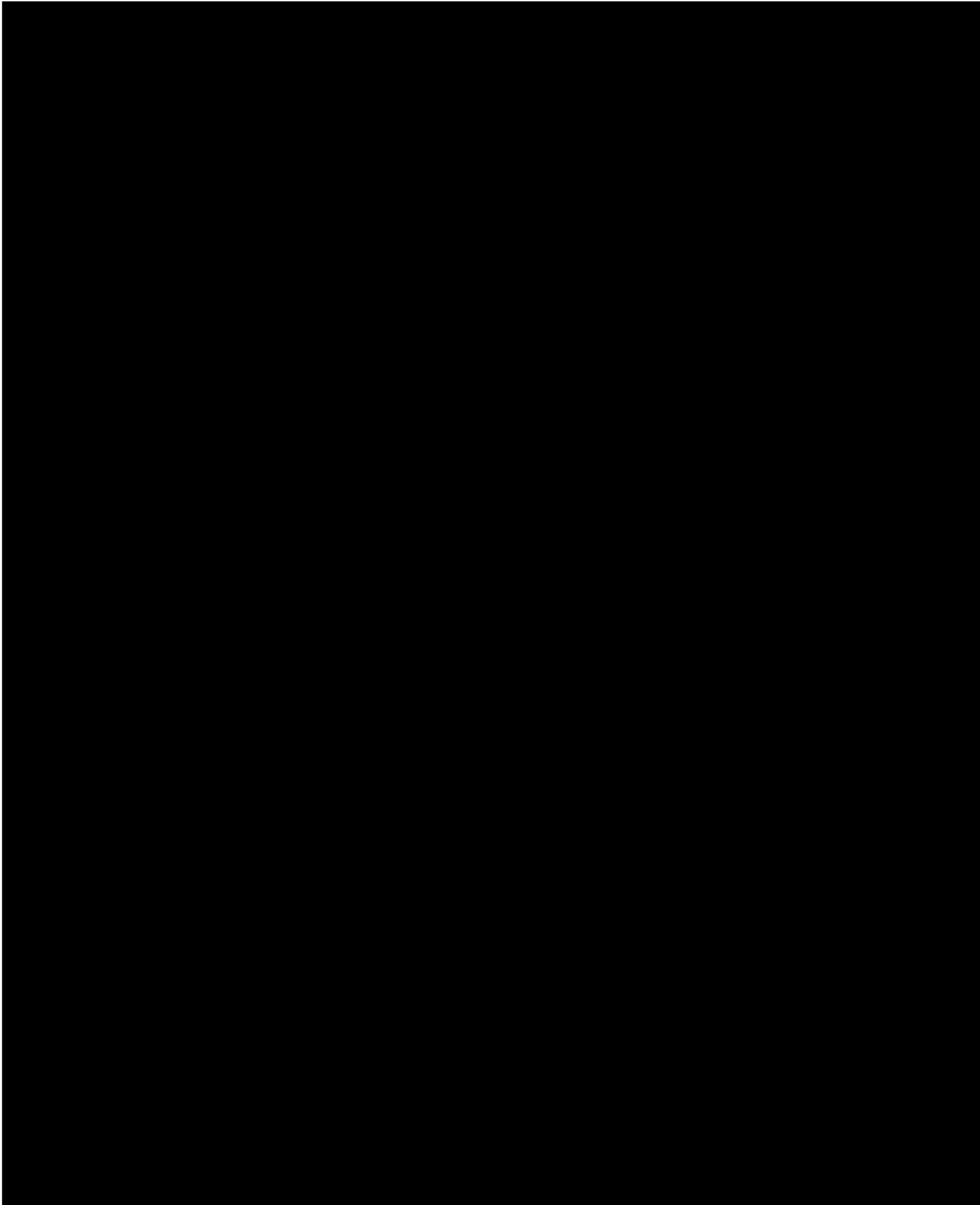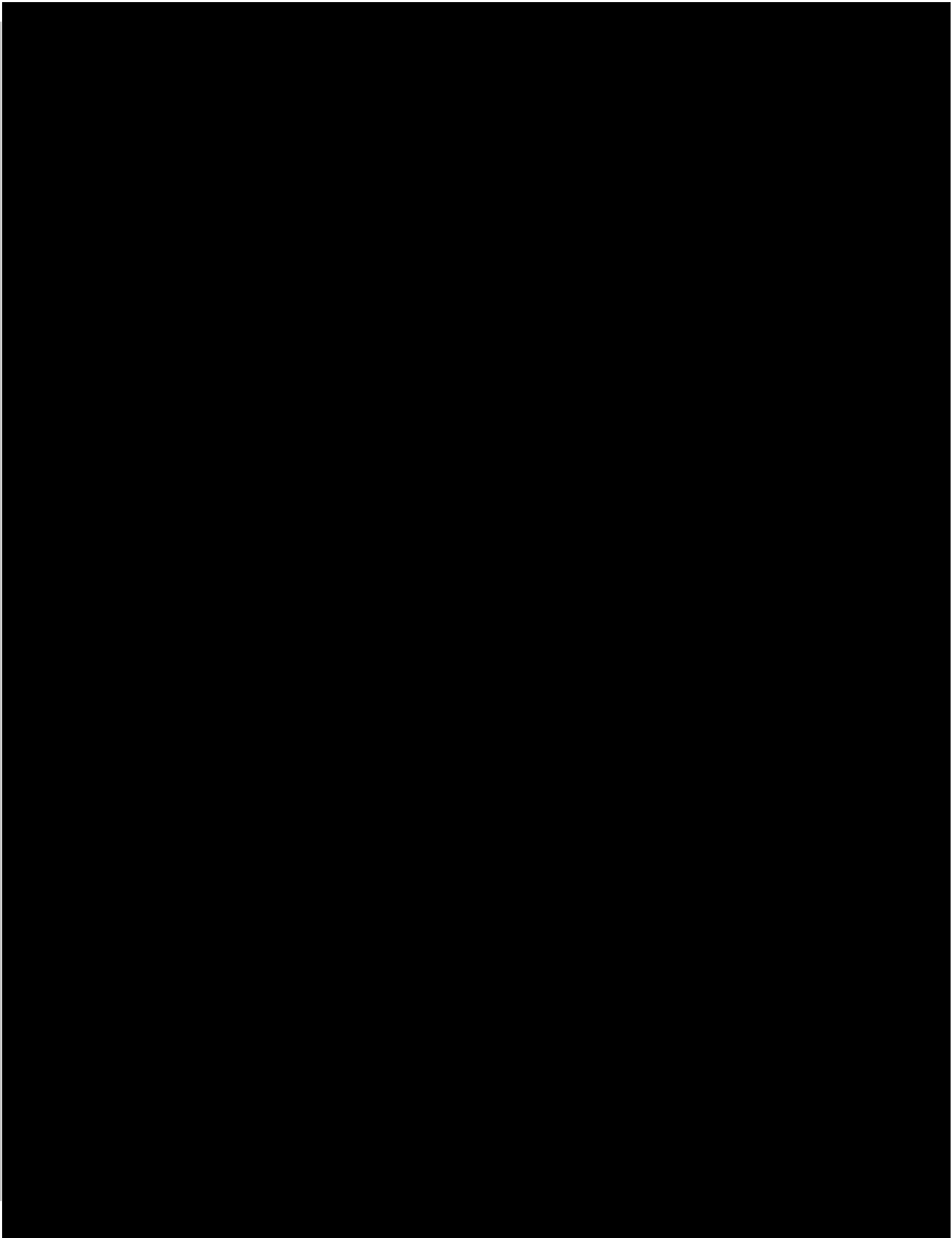
Appendix D: Interview with Professor Kelly Wilson, Co-founder of Acceptance and Commitment Therapy
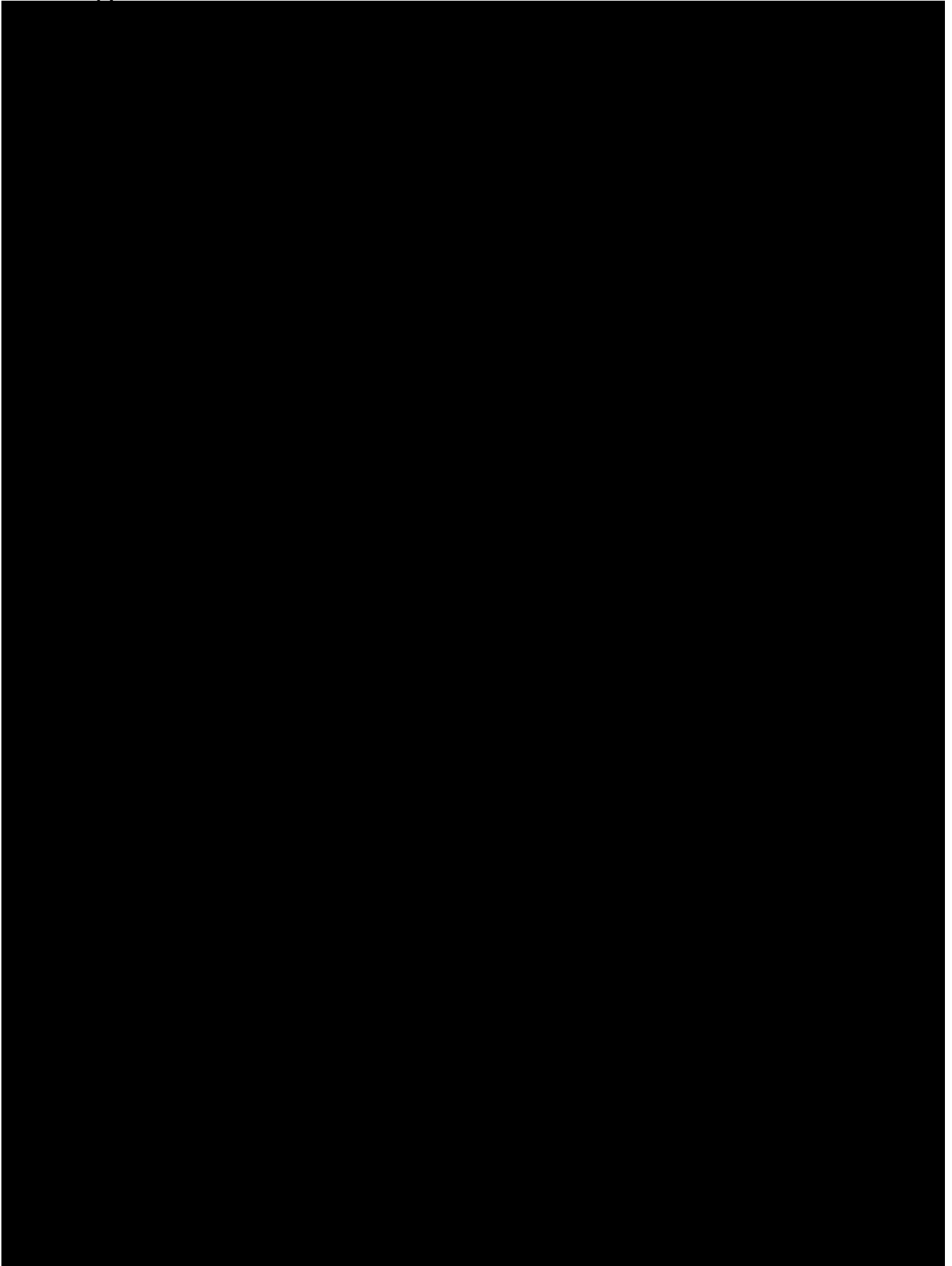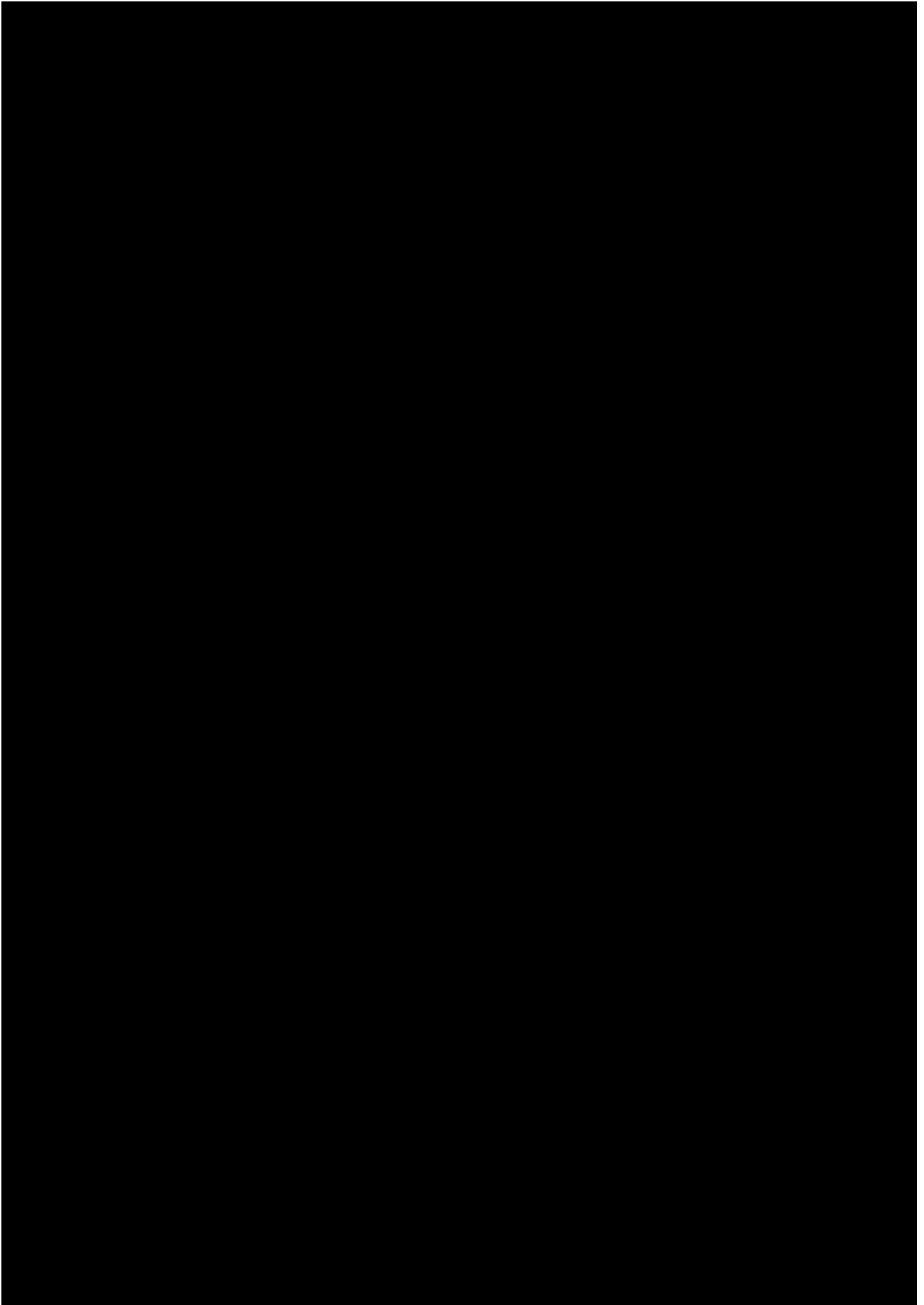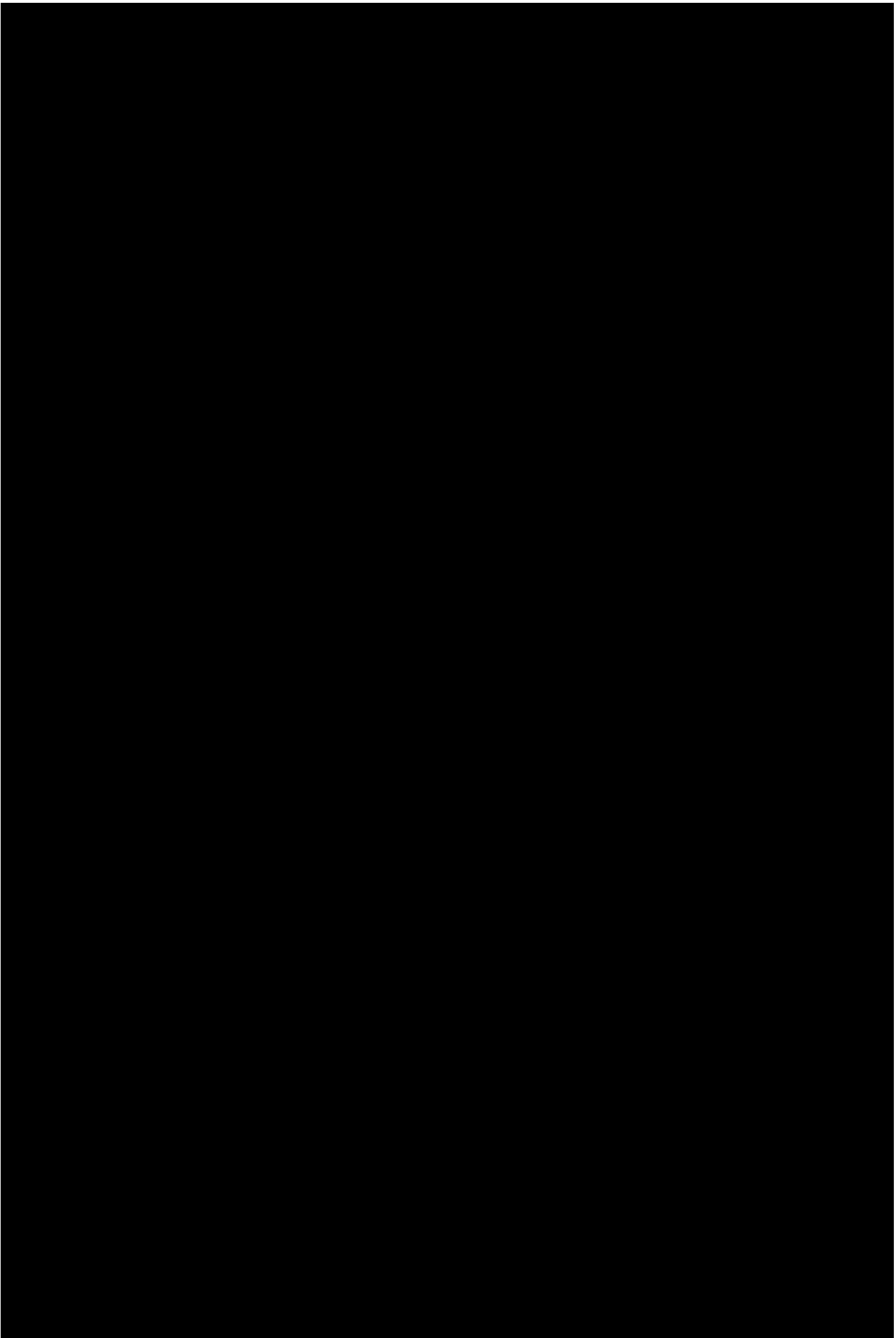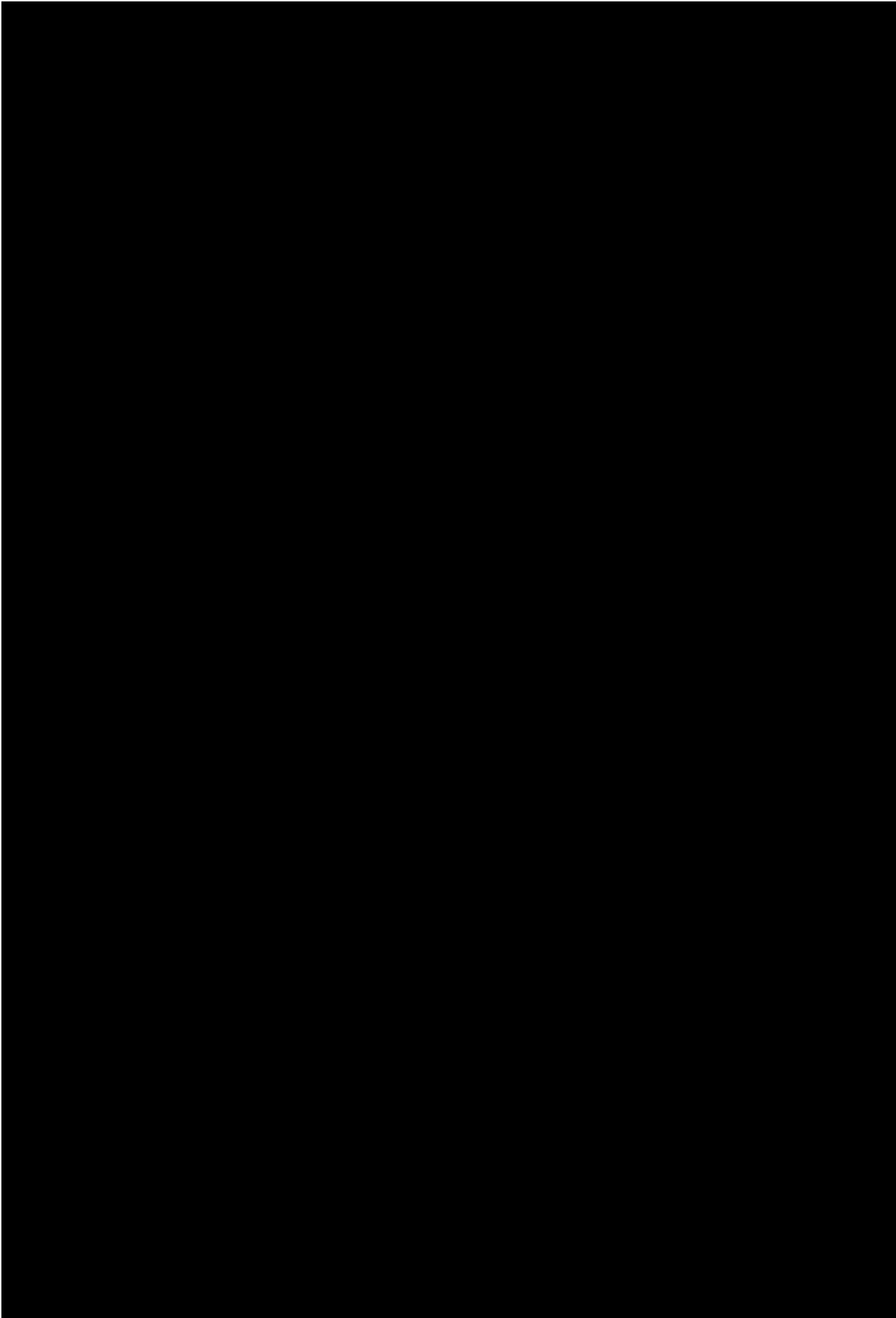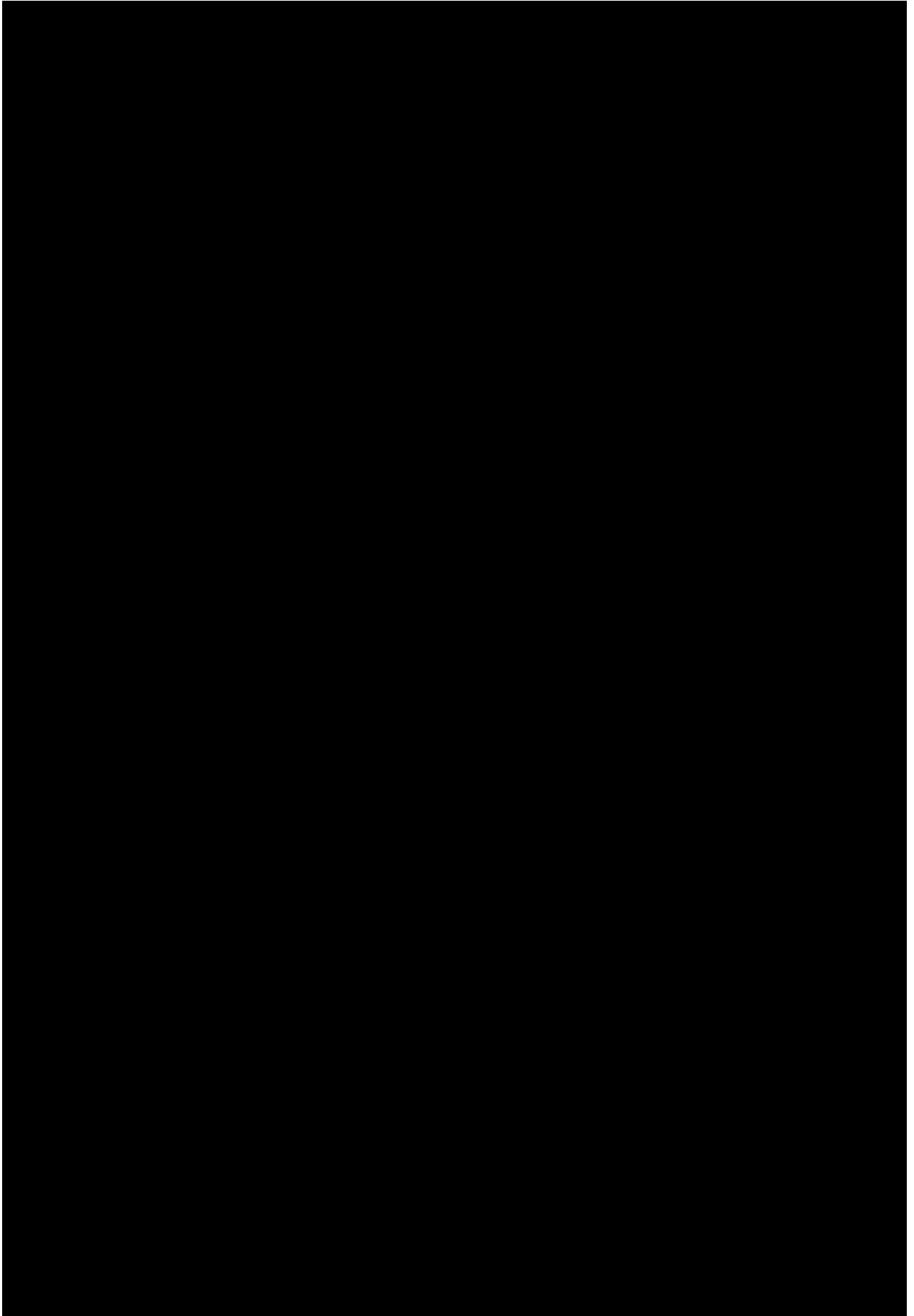
Appendix E: Interview with Prof. Paul Gilbert, Founder of Compassion-Focused Therapy

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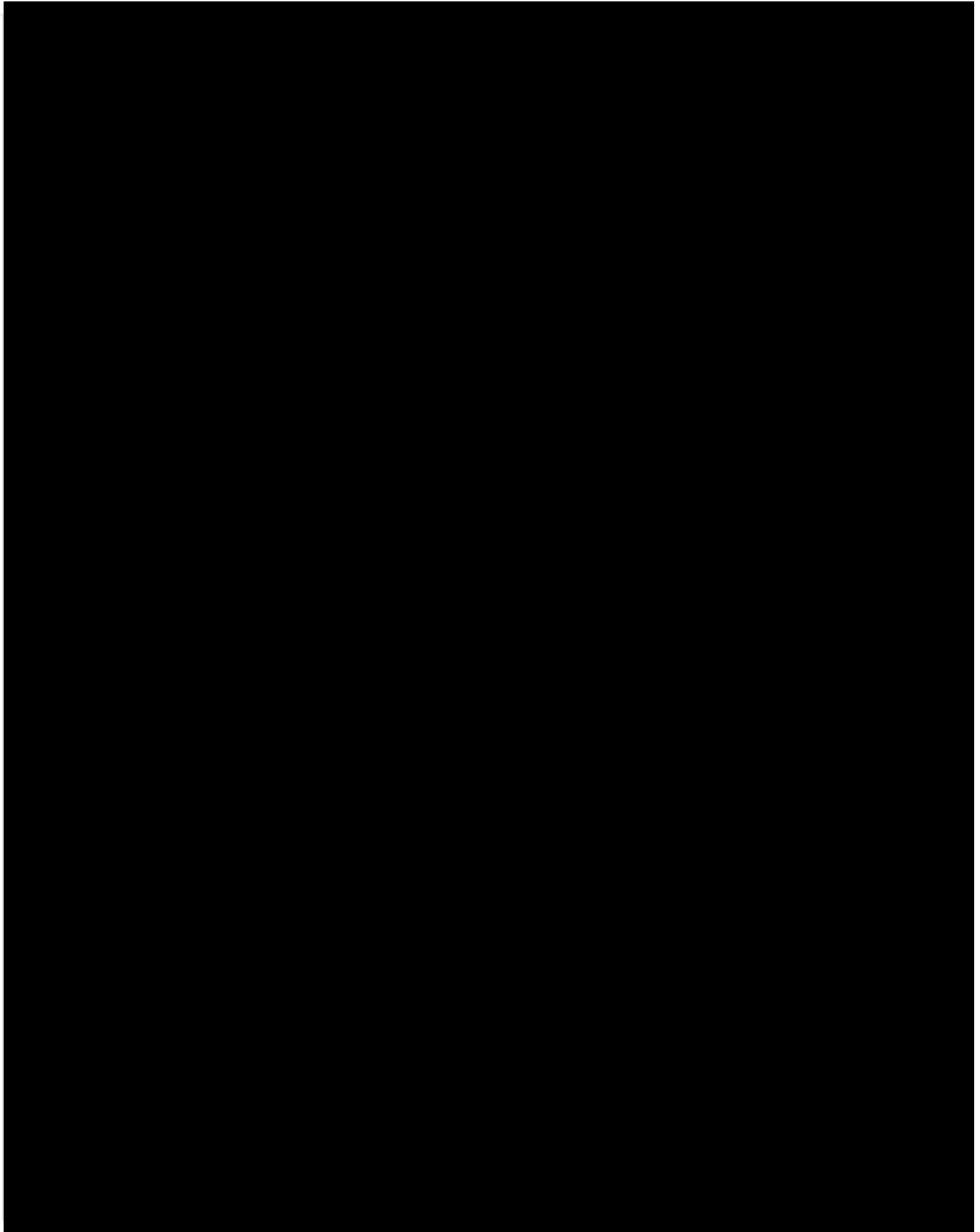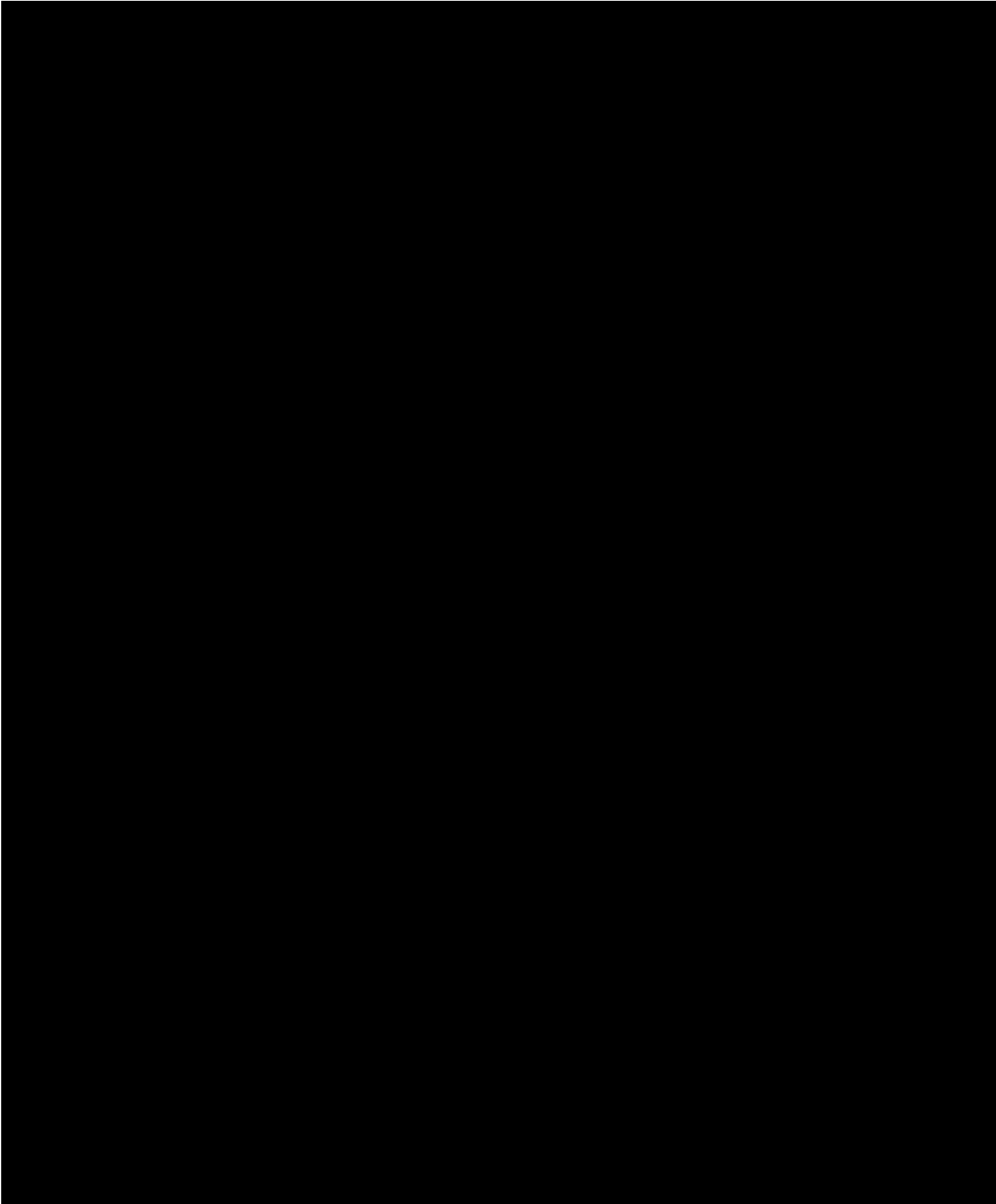
Qualification in Health Psychology (QHP) Stage 2

Portfolio of Competence

Consultancy (5.0)

Supervisor: Dr Hayley McBain

Evidence submitted:

i)   A case study (3,000 words excluding tables, figures and appendices) with supporting evidence in appendices.

ii)   A supervisor's evaluation report or a workplace contact report (included in Practice Log)

Word Count: 2,992

Setting: Maternity Services Unit, John Radcliffe Hospital

Intervention: 1-year tailored weight management programme for maternity services staff

Dose: Eight fortnightly sessions, 90 minutes

Participants: 11 women BMI26-39

Date: June 2014 – May 2015

5.1 Prologue

The following report outlines my experience of undertaking a consultancy project as part of my role at MoreLife, a specialist NHS-commissioned weight management service (BMI>40). The project involved planning, designing and delivering a training session and intervention for staff of the maternity services unit at the John Radcliffe Hospital, Oxford. The consultation dimension carried the project experience beyond my normal scope of work, and presented an opportunity for me to apply a variety of skills in responsibly seeing the process through, from beginning to completion.

Assessing requests for consultancy (4.1)

In June 2014, Oxford University Hospitals NHS Trust ('the client') approached MoreLife ('the consultant') about specific needs and challenges identified within maternity services. Given the existing service being delivered by MoreLife on behalf of Oxford University Hospitals NHS Trust, an established relationship and basis of trust was already in place between client and consultant, forming a key part of the 'psychological contract' formed within the consultancy process (Weisbord, 2012). My input into the project was sought based upon my background in health psychology and experience as a practitioner.

Based on the literature and nature of the initial approach, it was evident that the proposed consultation would take the form of an *expert-led* and *content-centred* model (Schein, 1987). This model is client intensive, with assessment and problem definition generally established by the client. Further, agreement of an accurate problem definition between client and consultant forms a critical part of the consultation process and is one of the best predictors for a successful project outcome (Bergan & Tombari, 1976; Kratochwill & Bergan, 1990). A description of the context and problem definition was initially provided by the client:

1. *Rising maternal obesity among patients and associated health risks and costs (e.g. stillbirths, gestational diabetes mellitus);*

2. *Increasing overweight and obesity trends among maternity services staff, and;*

3. *Low staff confidence and knowledge in communicating weight management guidance to patients*

The client had identified their chosen target group (maternity services unit at the John Radcliffe Hospital, Oxford) and preferred intervention type (structured group programme and training), prior to approaching MoreLife.

This clarity of intention and purpose helped to determine an accurate diagnosis and facilitated a swift agreement on problem definition between client and consultant. I sought to explore client needs more fully by arranging a formal meeting to assess the project scope in more depth and to ensure assumptions were not incorrectly made, in line with recommendations put forward by Earll and Bath (2004). In a similar vein, this stance also reflected an *exploratory* approach, as advocated by Schein (1987).

It is widely acknowledged that in the context of delivering an 'expert-led' model several assumptions are made. Firstly, it was anticipated that the client had made a correct diagnosis of the problem. Secondly, it was expected that the client had correctly identified the consultant's capabilities in providing a relevant and appropriate solution to the problem. Thirdly, it was presumed that the client had communicated the problem correctly to the consultant. Finally, it was assumed that the client had considered and accepted all possible outcomes of the help that would be received, including negative outcomes (prior to commissioning of the consultation key performance indicators (KPIs) were agreed and set out within the parameters of the service contract).

Phase 1: Problem Definition

Within the contract negotiation, two key areas required clarity: 1) *Capacity*, and; 2) *Outcome expectations* for the proposed programme (i.e. KPIs). Table 5.1, below, outlines the process by which a mutually agreed framework for consultation was established between the client and consultant.

Table 5.1. Contract objectives and agreements

Contract Objective	Rationale	Agreement
Capacity	Capacity within the existing contract (commissioned in 2013) identified as being available	Participant numbers for the proposed programme to be extracted from existing contract - 'straight swap' exchange Target of 15 maternity staff No financial requirement
Outcome Expectations	BMI criteria for the maternity services revised to reflect the target group more appropriately Adapted 'pilot' programme with revised curriculum (consideration of time restrictions, target group)	BMI inclusion criteria revised from BMI>40 (or BMI>35 with comorbidities) to BMI>25 Revised target weight loss outcomes (i.e. KPI's), as follows: BMI 25-29 (Overweight): 2.5% (8 weeks) 5% (12 months)* BMI 30+ (Obese): 5% (8 weeks) 7.5% (12 months) *Or to 'normal weight' BMI range (i.e. BMI<25)*

Planning consultancy (4.2)

Phase 2: Addressing interventions to be implemented and evaluated

Once agreement of the problem definition had been reached, the planning stage of the consultancy was initiated. Based on the challenges identified and available resources, the following priorities were set out as primary and secondary outcome goals for the pilot intervention:

Primary Objectives*:*

    a) *To support and facilitate weight loss among maternal services staff, through increased confidence and knowledge in own weight management*

    b) *To improve the confidence, knowledge and awareness of maternity service staff in providing weight management guidance to expectant mothers*

Secondary Objective (longer-term):

c) *To support and facilitate appropriate weight management among maternity care patients*

Upon agreement of expectations, opportunities for meeting objectives were considered amidst practical realities defined by the client. In working toward a SMART (Specific; Measurable; Achievable; Realistic; Time-bound) framework for achieving these stated goals (Conzemius & O'Neill, 2009), therefore, I set out the action plan outlined in Table 5.2.

Table 5.2. Programme Objectives, Delivery and Evaluation

Objective	Intervention	Measured by
a) *To support and facilitate weight loss among maternal services staff, through increased confidence and knowledge in own weight management*	1-year tailored weight management programme adapted for maternity services staff 1 group (15 staff) Delivered in: 8 fortnightly sessions (1.5 hours) 6-month review session (1.5 hours) 12-month review session (1.5 hours) Venue Location: Women's Centre, John Radcliffe Hospital	Monitoring weight outcomes at each session Pre and post questionnaire Verbal feedback
b) *To improve the confidence, knowledge and awareness of maternity service staff in communicating weight loss guidance to patients*	Training module on communicating weight management guidance to patients (1.5 hours) Delivered within tailored weight management programme Informed by maternity services staff focus group	Outcome data on patient weight and engagement (12 months) Pre and post questionnaire Verbal feedback
c) *To support and facilitate appropriate weight management among maternity care patients*	Strategies to support patient communication	Outcome data on patient weight and engagement (12 months) Patient feedback

Design of the project was based on clarified objectives and consisted of an intervention phase, which included an adapted weight management programme (eight fortnightly sessions, six and 12-month review) and a training component (communicating weight management guidance to patients). The interventions were to be monitored and evaluated through weight loss outcome data, pre and post questionnaire and feedback, as well as assessment of patient outcome data (training component

only) to establish whether a secondary goal of improving patient weight outcomes had been met over the medium term (12 months).

Focus Group

To optimise the support provided to maternity services staff in communicating weight loss guidance to patients, the specific challenges, barriers and opportunities faced by staff working on the frontline first needed to be understood. Though not all maternity services staff participating on the programme worked with patients directly (e.g. administrative staff), the staff-patient interaction was acknowledged as being a critical component in driving the change process, as well as understanding the human factors that needed to be managed. In addressing this need, a consultation group involving several staff members was arranged, the results of which served to inform the training component and ensure appropriateness, relevance and effectiveness of the module.

Establishing, developing and maintaining working relationships with clients (4.3)

Agreement was reached with local commissioners to allocate existing contract capacity to the maternity services programme. No specification for this tailored programme had been set out within the initial 4-year agreement, there was deemed sufficient capacity available to deliver the proposed project as a 'sub-contract' within the boundaries of the existing contract. Understanding the importance of communication to ensuring a successful process, I provided ongoing feedback to the contact liaison throughout the period of consultancy. Regular and consistent communication was also a key factor in serving to reduce client uncertainty and anxiety (Lundberg, 1997).

Conducting consultancy (4.4)

The initial meeting and focus group provided sufficient information with which to commence the process of conducting the weight management programme and training session, as follows:

Recruitment

Participants were recruited to the proposed intervention through posters, word of mouth, and a midwives 'drop-in' event. A health and wellbeing promotion specialist at the John Radcliffe Hospital (AH), acted as 'intermediate' during the process, directing all referrals to MoreLife. Each referral was contacted by the intervention facilitator (KK) and underwent a 10-minute assessment to ensure readiness to change and programme suitability. Individual consent was also sought to inform GP of their participation on the programme.

In total, nine participants began the programme (a further two participants joined at Session 2). All participants were female, ranging in weight from BMI26–39. Participants were engaged in clinical and non-clinical job roles, including nursing, management and administration.

Intervention: Tailored weight management programme (maternity services staff, John Radcliffe Hospital)

The core MoreLife curriculum is aligned to current national guidelines on weight management and underpinned by an evidence-based cognitive therapy model (NICE, 2014). For the proposed pilot intervention, the standardised 'intensive' phase (ordinarily comprised of 14 weekly sessions) was replaced with a schedule of eight fortnightly sessions to accommodate for time constraints and changing shift patterns faced by maternity services staff. In anticipation of the potential for unplanned session absences due to shift scheduling conflicts, it was planned that participants unable to attend specific sessions would receive a follow up via telephone. Whilst the project provided a novel challenge, experiences in facilitating similar programme sessions, as well as a clear understanding of client needs based on my involvement at each stage of the consultancy process, gave me confidence to deliver the programme effectively.

Intervention: Training on communicating weight loss guidance to patients

The training component of the course (aimed at meeting Objective 'b)'), followed a 'prescriptive' model of consultation, with a specific individual intervention being provided to support effective communication of weight loss guidance to patients (Kurpius, 1978). As Beer (1980) puts forward, individual interventions 'focus on helping people develop a higher level of functioning in the form of workshops, seminars and other educational approaches'. The training module therefore sought to aid maternity services staff in communicating the issue of weight with patients and providing relevant and appropriate weight loss guidance. Given the sensitivities around the 'weight conversation' often faced by healthcare professionals, a solution-focused training module which focused on building confidence and knowledge in the patient-professional interaction was considered an essential dimension of the proposed programme. The module lasted for 1.5 hours, and was presented as 'Session 7' of the eight fortnightly sessions (Appendix 5a, page 235).

Reviewing the process and outcomes of consultancy (4.5)

Maintaining regular contact with the identified client liaison (AH) ensured that any administrative issues (e.g. venue or timing alterations) could be addressed in a professional manner. Being immersed in the project provided the opportunity to identify critical influences affecting the

programme outcomes at each stage. Presenting regular progress updates to the client liaison helped to generate points of discussion and several considerations for future interventions. More specifically, the following observations were summarised and shared:

Weight loss

Weight loss outcomes among clients who were classified as 'completers' (i.e. attending a minimum of six of eight sessions, n = 3) were between 5%-12% bodyweight. Therefore, clients who 'completed', were observed to have lost weight. This finding may point to a causal link between regular attendance and efficacy of the programme. *Discussion point: Communication around increased attendance, greater inclusion of management and departmental staff in supporting programme engagement.*

Weekly vs fortnightly sessions

A departure from the standardised structure of 14 weekly sessions to eight fortnightly sessions had a tangible influence on attendance and, ultimately, on participant engagement. Extensive outcome data from previous MoreLife interventions indicates that early weight loss is a strong predictor of long term success on the programme. A lack of early engagement, therefore, compromises the opportunity to achieve successful outcomes. Regular attendance is important in working with psychological and emotional drivers relating to the weight journey, beyond the processes of a conventional 'diet'. Achieving these aims becomes increasingly challenging in instances where sessions are missed, especially in the context of fortnightly, rather than weekly, sessions. *Discussion point: Weekly sessions more effective?*

Telephone follow ups

Where a session was missed by a participant, an attempt to contact the individual via telephone was made. This follow up is a standard MoreLife protocol undertaken to provide client support and offer a summary of the session missed. Due to heavy work commitments and changing shift patterns, however, making telephone contact with this target group proved especially challenging. This factor may also have impacted on outcomes of the pilot. *Discussion point: Weekly emails more effective than follow up telephone calls for this client group?*

Participant numbers

Participant numbers at programme commencement were low (11 starters). Combined with a high number of sessions missed due to unpredicted absences, low and inconsistent attendance numbers

may have negatively affected group dynamics and, ultimately, upon outcomes (see also *'Group dynamics'*).

Time of year

With the programme commencing in late October, sessions inevitably were delivered over the Christmas period (two sessions in December). Predictably, attendance rates during these two sessions were especially low, with several informed absences reported due to Christmas social events and engagements. Though programme engagement improved somewhat following the Christmas period, the January 'blues' and greater than usual workloads were also cited as reasons for non-attendance around this time. *Discussion point: Opportunity for alternative programme schedule?*

Group dynamics

Those attending the pilot intervention were known to each other outside of the group (i.e. were work colleagues). Whilst this environment may have stimulated a sense of support and camaraderie, other feelings - for example, anxiety of 'oversharing', reluctance to be perceived as vulnerable among peers (e.g. in sharing private emotions), or being viewed as a failure (e.g. not enough weight perceived to have been lost) – may, likewise, have been a factor. The group appeared to have become more reserved in the second half of the programme, perhaps as a self-preservation mechanism, or as clients adopted a safe, comfortable, non-threatening 'role' within the group. Successive non-attendances also may have impacted on this effect, with regular attendees often less willing to share thoughts, emotions and experiences in the presence of 'occasional' attendees, and vice versa. *Discussion point: 'Labelling' the effect of peers within the group at programme start, managing group inertia, emphasising attendance.*

Late starters

A registered participant on the group who had been unwell for several weeks missed the initial four sessions of the programme. Though no longer officially able to 'complete' the programme at that stage, she was invited to join the group at Session 5 (ordinarily new starters would be required to attend their first session at no later than Session 2). This exception was made as no other group could be offered to the client as an alternative. In retrospect, inclusion to the group will have inevitably affected the group dynamic. In a context where being able to share thoughts and emotions openly and safely is paramount, joining the group so late on may have been detrimental to both the group and individual. *Discussion point: Restriction on first attendance beyond Session 2.*

Extenuating circumstances

Several participants cited extenuating circumstances as a reason for a lack of engagement with the programme. Though it is expected that external factors will arise during any programme, disruption to engagement resulting from extenuating circumstances was exaggerated further by the fortnightly session schedule.

**Evaluating the impact of the consultancy outcomes (4.6)**

Conducting a formal evaluation of the project was fundamental in identifying whether objectives had been adequately met. Six and 12-month review sessions were delivered in follow up to the 14 weekly sessions. The pilot intervention was monitored and evaluated based on weight loss outcome data, attendance, questionnaire (pre and post) and verbal feedback.

Weight Loss Outcomes and Attendance

Weight loss outcomes and attendance from the pilot intervention are reported in Figure 4 and Figure 5, below.
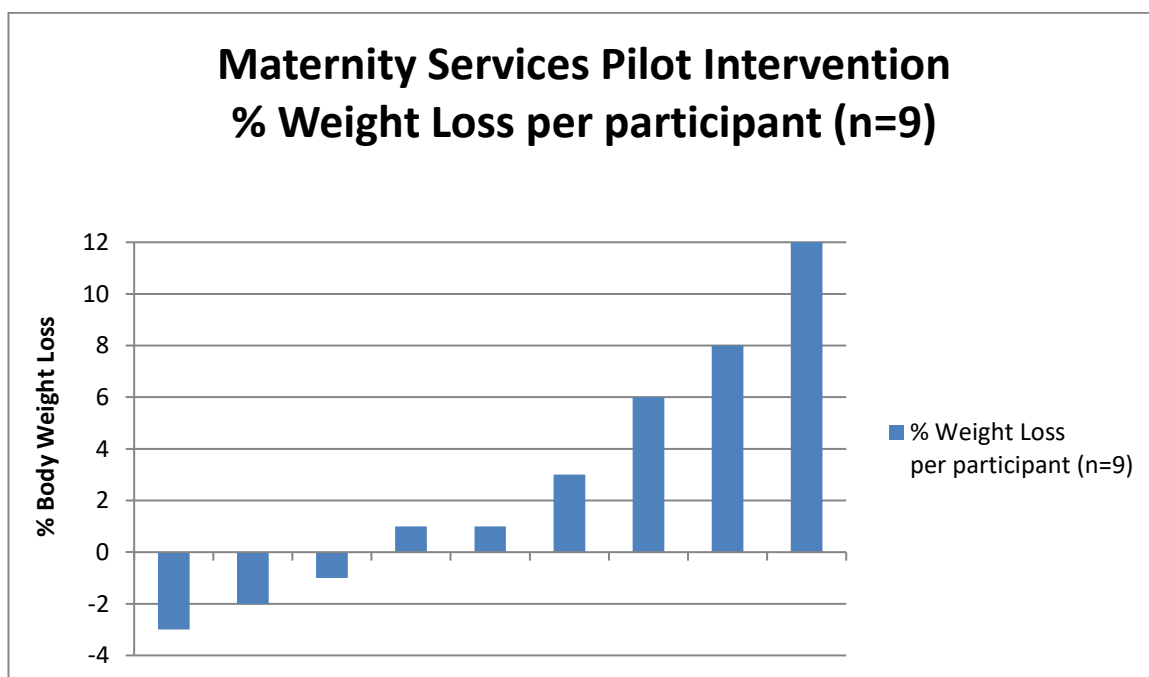
Figure 4. Maternity Services Pilot Intervention Outcomes – Weight Loss

**Maternity Services Pilot Intervention
No. of Sessions attended per participant
(n=11)**
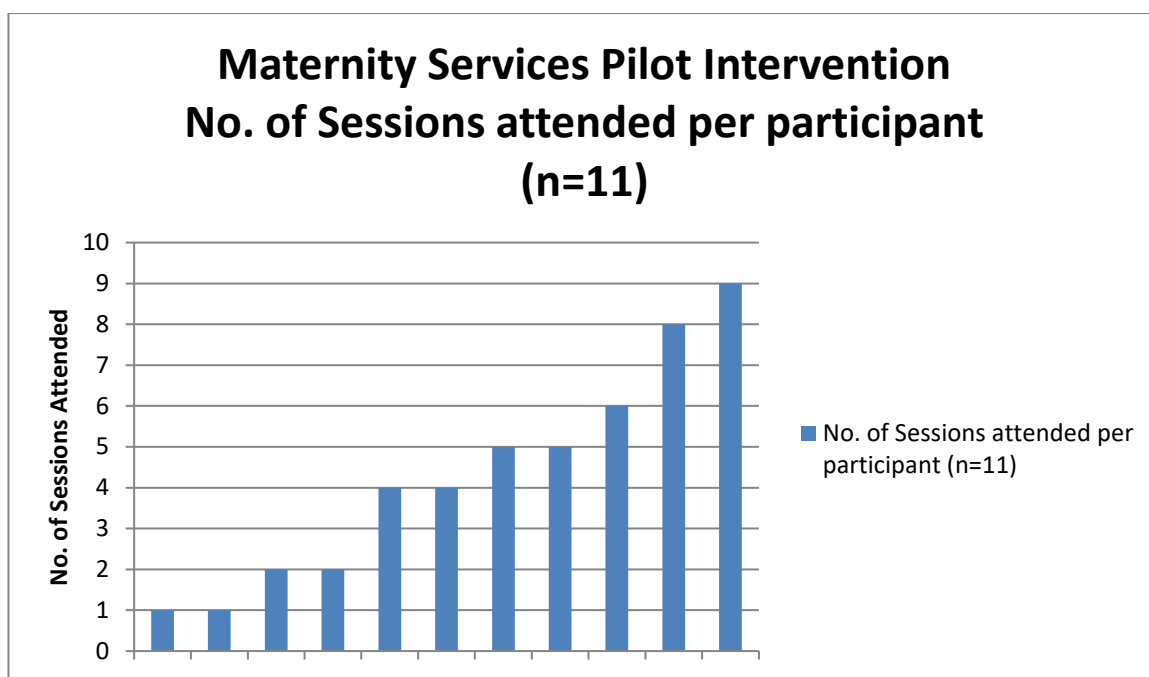
Figure 5. Maternity Services Pilot Intervention Outcomes – Attendance

Questionnaire Evaluation

Participants were asked to complete questionnaires during Session 1 (programme commencement). Ten participant questionnaires were returned in total. Participants received the same questionnaire again at Session 8. Four participants attended the session and all completed questionnaires (Appendix 5b, page 236). Questionnaire responses, both from Session 1 (Table 5.3) and Session 8 (Table 5..4Table 5.), are reported below. It is important to state that these results did not reflect true pre and post intervention outcomes, as only two of the same individuals completed the questionnaire both at Session 1 and Session 8.

Table 5.3. Questionnaire responses: Session 1 (programme commencement) n= 10 completed

Question	Response	%
1. Overall, how would you rate your confidence level in being able to lose weight sustainably?	Very High	
	High	33%
	Average	55%
	Low	11%
	Very Low	
2. Overall, how would you rate your knowledge level in being able to lose weight sustainably?	Very High	
	High	44%
	Average	55%
	Low	
	Very Low	
3. To what extent does your current weight negatively affect your levels of productivity at work?	Very High	
	High	11%
	No Difference	66%
	Low	11%
	Very Low	11%
4. To what extent does your current weight negatively affect your overall wellbeing at work?	Very High	
	High	22%
	No Difference	33%
	Low	33%
	Very Low	11%
5. To what extent does your current weight impact on your ability to communicate weight loss guidance to patients effectively?	It definitely helps me to empathise and give better weight loss guidance	
	It helps a bit in understanding the patients' situation, but not much	14%
	It makes no difference, whatever my weight	55%
	It makes me somewhat uncomfortable addressing weight, but I do it anyway	71%
	It makes me uncomfortable and unlikely to address weight with my patients	14%
6. How would you rate your confidence level in advising patients on weight management?	Very High	
	High	
	Average	75%
	Low	13%
	Very Low	13%
7. How would you rate your knowledge level in advising patients on weight management?	Very High	
	High	50%
	Average	25%
	Low	13%
	Very Low	13%

Table 5.4. Questionnaire responses: Session 8 (end of fortnightly sessions) n=4 completed

1. Overall, how would you rate your confidence level in being able to lose weight sustainably?		Very High	
		High	50%
		Average	50%
		Low	
		Very Low	
2. Overall, how would you rate your knowledge level in being able to lose weight sustainably?		Very High	
		High	75%
		Average	25%
		Low	
		Very Low	
3. To what extent does your current weight negatively affect your levels of productivity at work?		Very High	
		High	
		No Difference	100%
		Low	
		Very Low	
4. To what extent does your current weight negatively affect your overall wellbeing at work?		Very High	
		High	
		No Difference	100%
		Low	
		Very Low	
5. To what extent does your current weight impact on your ability to communicate weight loss guidance to patients effectively?	It definitely helps me to empathise and give better weight loss guidance		50%
	It helps a bit in understanding the patients' situation, but not much		25%
	It makes no difference, whatever my weight		25%
	It makes me somewhat uncomfortable addressing weight, but I do it anyway		
	It makes me uncomfortable and unlikely to address weight with my patients		
6. How would you rate your confidence level in advising patients on weight management?		Very High	
		High	50%
		Average	50%
		Low	
		Very Low	
7. How would you rate your knowledge level in advising patients on weight management?		Very High	
		High	50%
		Average	25%
		Low	25%
		Very Low	

The pilot was primarily focused on supporting staff to facilitate their own weight loss, as well as fostering confidence in delivering effective weight loss guidance to patients. Overall, the results of the current pilot indicate a measure of success, with strong individual weight loss outcomes found among all 'completers' (n=3) ('completers' identified as those attending six sessions or more) each of whom lost between 5%-12% bodyweight. Attendance rates varied, but were generally low. Some possible reasons for this were hypothesised in the discussion points provided (4.5). It was acknowledged that a comparison study of pre and post questionnaire feedback could not reasonably be undertaken given the low numbers involved (only 2 of 10 participants completed both Session 1 and Session 8 questionnaires). Due to limited availability of data, it was also not possible to report adequately on outcomes from the training session (e.g. *'How would you rate your confidence/knowledge level in advising patients on weight management?'*). Finally, the lack of scale posed a barrier to measuring a secondary objective of the pilot, which sought to identify any subsequent impact of the intervention on *patient* weight management.

Given low participant numbers and the brevity of the pilot, accurately reflecting on the extent to which the primary objectives have been met to date – *1) Achieving a 'healthy weight' among maternal services staff and, 2) Improving the confidence, knowledge and awareness of maternity service staff in communicating weight loss guidance to patients* – is challenging and a limitation of the evaluation. Meeting the secondary objective outlined for the pilot - *To support and facilitate appropriate weight management among maternity care patients* – was, in retrospect, an ambitious step given the scope of the intervention. However, with the wider goal of addressing maternal obesity in mind, this objective must remain a focus for consideration in the development of any future workplace interventions.

As an initial investigation, the current pilot provides insight into some of the challenges and opportunities in supporting weight loss among maternity services staff. Overall there is evidence to suggest that the intervention is well received, and can deliver successful outcomes *if* well attended. A number of barriers to attendance are identified in this pilot and should also be considered in the planning of future interventions.

Anecdotally, the training session ('Session 7') was also endorsed by participants, though proved challenging to evaluate effectively given its limited scale. Additional training sessions and a clear focus on practice and implementation may be warranted. Outcomes of the evaluation were presented to the client in a report format. The consultancy was closed once it was mutually agreed

in discussion between the client and me that expectations for the project had been met, and outcomes achieved.

5.2 Summary

In seeking to achieve the objectives outlined within the consultation process, the programme focused on a personal learning, knowledge-based approach for staff to facilitate their own weight loss, as well as enhancing their capability in delivering effective weight loss guidance to patients. Overall, the results of the current pilot were successful with individual weight loss and training outcomes achieved in line with target expectations.

5.3 References

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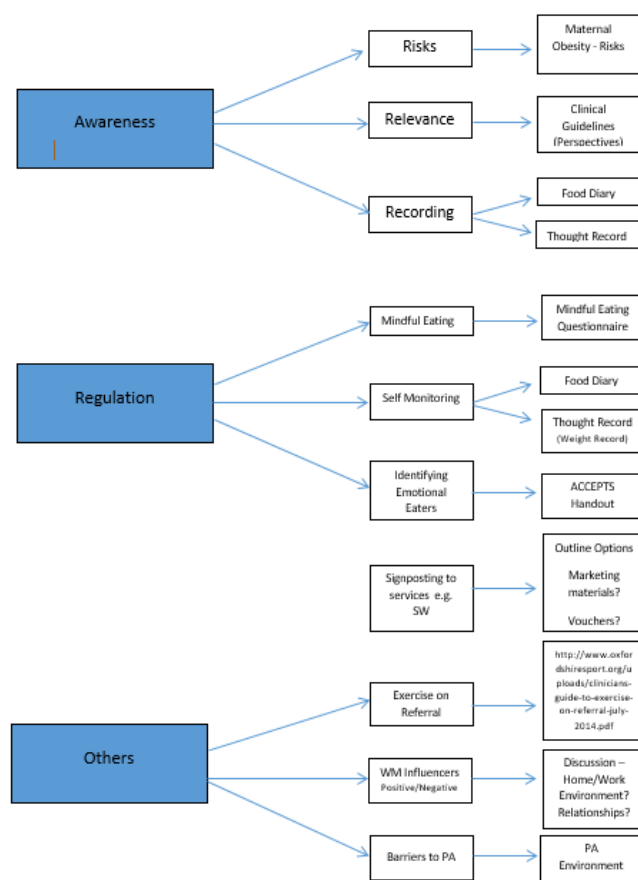
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5.4 Appendices

Appendix 5a: Training Handout – Session 7

Appendix 5b: Pre/Post Questionnaire

MORE*life*
LIVE HEALTHILY EVER AFTER

Name: _____

Feedback

We would be grateful if you would provide feedback on your weight loss journey and experience of MoreLife. Please be honest; your feedback will help us when we review our service. All responses are kept confidentially.

Please tick the answer that applies

8. Overall, how would you rate your confidence level in being able to lose weight sustainably?

   f. Very High ☐
   g. High ☐
   h. Average ☐
   i. Low ☐
   j. Very Low ☐

9. Overall, how would you rate your knowledge level in being able to lose weight sustainably?

   a. Very High ☐
   b. High ☐
   c. Average ☐
   d. Low ☐
   e. Very Low ☐

10. To what extent does your current weight negatively affect your levels of productivity at work?

   a. Very Highly ☐
   b. Highly ☐
   c. No Difference ☐
   d. Low ☐
   e. Very Low ☐

11. To what extent does your current weight negatively affect your overall wellbeing at work?

   a. Very Highly ☐

b. Highly ☐
c. No Difference ☐
d. Low ☐
e. Very Low ☐

12. To what extent does your current weight impact on your ability to communicate weight loss guidance to patients effectively?

a. It definitely helps me to empathise and give better weight loss guidance ☐
b. It helps a bit in understanding the patients' situation, but not much ☐
c. It makes no difference, whatever my weight ☐
d. It makes me somewhat uncomfortable addressing weight, but I do it anyway ☐
e. It makes me uncomfortable and unlikely to address weight with my patients ☐

13. How would you rate your confidence level in advising patients on weight management?

a. Very High ☐
b. High ☐
c. Average ☐
d. Low ☐
e. Very Low ☐

14. How would you rate your knowledge level in advising patients on weight management?

a. Very High ☐
b. High ☐
c. Average ☐
d. Low ☐
e. Very Low ☐

15. Any comments?

Thank you for taking the time to complete this questionnaire

Qualification in Health Psychology (QHP) Stage 2

Portfolio of Competence

<u>Teaching and Training (6.0)</u>

Supervisor: Dr Hayley McBain

Evidence submitted:

(i) 2 teaching and training case study (1 x 1000 & 1 x 2000 words, excluding appendices) with supporting evidence in appendices

(ii) An observer's report (Appendix 6e, page 260)

(iii) A supervisor's evaluation report or a workplace contact report (included in Practice Log)

Word Count: Part 1: 1,998
Part 2: 975

6.1 Prologue

The following report outlines my experience of delivering two teaching and training projects as part of my role at MoreLife, a specialist NHS-commissioned weight management service (BMI>40). The first teaching and training programme I conducted (Part 1) was focused on weight management and delivered to staff at Hammersmith Hospital and St. Mary's Hospital, Paddington. The project was outlined as part of a pilot initiative funded by Public Health England (PHE) with the aim of supporting health and wellbeing in the workplace. At a local level, I liaised with Occupational Health teams at both hospitals to ensure effective training delivery.

The second training project (Part 2) arose having been invited by organisers of the peer-led discussion seminar series at City, University of London to deliver a seminar presentation to health psychology students and health sciences departmental staff and students more widely. I was asked to present an introductory seminar on the topic of Acceptance and Commitment Therapy (ACT). Based on day-to-day interaction with the modality within a weight management context, and my previous experience gained through attendance at several ACT workshops, I felt suitability qualified and confident to undertake the training.

Part 1: Wellbeing in the Workplace – Training of NHS Hospital Staff (February – April 2015)
Assessing teaching and training needs (5.1a)

To assess needs for the proposed training I consulted with the Head of the Occupational Health team. The target group identified to receive the training were staff at Hammersmith Hospital and St. Mary's Hospital, Paddington who faced personal weight concerns. Staff included doctors, nurses, health practitioners and administrators with a BMI>25 (established via self-report). The consultation also generated learning objectives for the programme, outlined as follows:

- To improve learning around managing a healthy weight
- To foster the ability to manage and regulate personal thoughts and emotions in a way that supports wellbeing at home and in the workplace (psychological and emotional)
- To equip staff with a simple and practical 'toolkit' with which to positively support both their own healthy weight goals, and those of their patients

The teaching programme was scheduled to last for 12 weeks, with one-hour sessions delivered weekly over the period.

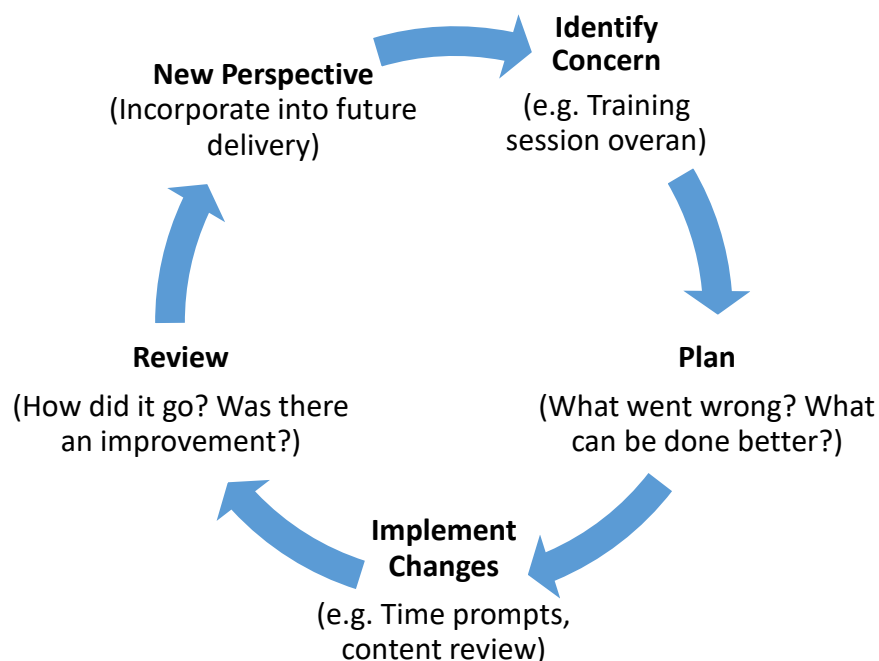**Developing teaching and training structure and content (5.1b)**

Receptivity to the learning styles of participants played a significant role in developing training content. Without having had the opportunity to meet with participants prior to session delivery, I invited verbal feedback from the group during the first session, which revealed both a strong preference for an *activist* approach and keenness to interact with the proposed ideas through 'hands-on' learning (Honey & Mumford, 1992). In adapting to this learning style, I refined sessions to be more practical and interactive in nature. As an example, participants were asked to reflect on and write down ways in which the ideas proposed were relevant to them and how they could be incorporated on a personal level (e.g. factors influencing weight loss behaviours). This solution-focused approach facilitated learning through practicing the 'workable' application of these ideas within everyday life.

In devising a workable training plan for hospital staff which would fit their identified needs, several factors were considered. Given the diversity of staff roles, background, gender and size among individuals attending the training, there was a wide variation in personal experience, knowledge, beliefs and expectations in relation to weight management. To address this potential barrier, I set out to establish and cultivate a relaxed, flexible group approach, with participants invited to collaborate in sharing their own personal experiences, adding a 'real world' dimension to session content. To achieve a culture in which this was possible, a number of group principles were put forward and agreed upon in Session 1, including confidentiality and a healthy respect and non-judgement for individual perspectives. A sense of authenticity, respect and provision of support were also core to the process, the importance of which was observed during my previous experiences of working in psycho-educational group settings.

Selecting appropriate teaching and training methods (5.1c)

Once commissioned, the lead in time for delivering the training was less than a month, from the design and planning stage to delivery commencement (end February 2015). With such a short timeframe involved, taking a proactive approach to prepare training methods prior to the learning experience was challenging (Boud, Keogh & Walker, 1985). Rather, I adopted a reactive learning stance, reflecting back on each session with the aid of a written journal to identify areas which could be improved upon. To support this practice of self-reflection, I also invited questions and comments from participants at the end of each session – "*reflection in action and reflection on action*", as put forward by Schön (1984, 1987).

Atkins and Murphy (1993) suggested that the reflective process is underpinned by three key elements: 1) *An awareness of uncomfortable feelings and thoughts*; 2) *Critical analysis*, and; 3) *New perspective*. Adopting this model I took time to reflect on each session, identifying and 'labelling' any thoughts that emerged during or post session, and logging these. The affective dimension associated with reflective thinking is often underestimated (Boud & Walker, 1998), and so any uncomfortable emotions I experienced were also logged. These thoughts and emotions were then reflected upon in the context of a critical analysis of various aspects of the session, including: time management; extent to which session objectives were met and were relevant, and; group participation, engagement and response level, for example. As part of this analysis, the extent to which critical factors identified were controllable or uncontrollable was also taken into account. Where possible, new ideas and perspectives were identified, implemented within the following session, and re-evaluated. If implementing an idea added value to improve session delivery, the idea took root as a new perspective and integrated within future training delivery. The cyclical process enabled me to increase awareness and develop my ability to deliver training more effectively. This practice, and an example of how it was implemented to support continuous improvement, is outlined in Figure 6, below:

New Perspective
(Incorporate into future delivery)

Identify Concern
(e.g. Training session overan)

Plan
(What went wrong? What can be done better?)

Implement Changes
(e.g. Time prompts, content review)

Review
(How did it go? Was there an improvement?)

Figure 6. Continuous Improvement Cycle – Teaching and Training

The process of reflection is also advanced by Boyd and Fales (1983), who define reflective learning as the "*process of internally examining and exploring an issue of concern, triggered by an experience, which clarifies meaning in terms of self, and which results in a change in conceptual perspective*". In

supporting my development as a reflective practitioner, I enjoyed taking responsibility for my learning and the opportunity to link theory and application in this way, which enabled me to increase my comfort level and confidence in delivering training.

Preparing materials for learners to maximise their knowledge and skills (5.1d)

Individual content guides with a clear agenda and topic focus were developed for each teaching session (Appendix 6a, page 249). I submitted my plans for delivery to my workplace supervisor and operational lead for review and comment. Both were satisfied with the proposed plans and were in agreement that I move forward with delivery on this basis. Each group had a maximum capacity of 15 participants to ensure an effective teaching and learning environment, and learning objectives were set out and agreed with participants at the beginning of each session.

Facilitating learning through delivering teaching and training programmes (5.2a)

In addition to developing my own teaching style (relaxed, open, coach, collaborative), each training session was focused upon the knowledge transfer of key principles on behavioural, psychological and emotional drivers of obesity. Selected session themes included*: identifying cues and triggers*; *food strategy*; *managing thoughts and emotions*, *overcoming barriers to weight loss*, and; *identifying values* (Appendix 6a, page 249).

Given the sensitive nature of weight management, emphasis on creating an environment in which participants felt valued and invested in was essential. To cultivate these conditions, participants were encouraged to share personal perspectives openly and engage in active solution-focused learning. This empowered participants to experience the training as an opportunity to add to their individual knowledge base within a nurturing environment. In this way, the interaction moved from a didactic, facilitator-centred model of teaching and training toward a more group-centred approach.

Evaluating outcomes (5.3a)

Evaluation questionnaires were devised and handed out to participants at the end of the training block (12 sessions). In all, 11 questionnaires were completed and received from across the two groups (Appendix 6b, page 251). Time and practical constraints restricted the feasibility of collecting written feedback at the end of each session. General themes were devised for the questionnaire to determine learning points from across the 12 training sessions. In undertaking a formative evaluation, Brown (2005) emphasises the importance of making key considerations, such as: *What is*

being assessed? How was it done? Was it good or bad? What could be improved? Aligned to this approach, the post-delivery questionnaire included evaluation on the quality of training sessions overall, including content and delivery (i.e. *'How would you rate overall content/delivery of the course?'*) Learning into action, or implementation (e.g. '*Which of the following tools do you use most regularly from the course…?'*), was also rated to identify which strategies participants engaged with and were able to put into practice. In addition, individual perceptions of group participation and engagement were also measured *('How comfortable were you in contributing to the group sessions alongside colleagues?'*) Finally, participants were given the opportunity to provide more generalised feedback ('*Any other comments or feedback?'*). Using the same continuous improvement cycle as illustrated above, key learnings were reflected upon and incorporated to improve future training design and delivery.

Participant ratings of the course delivery were generally positive, with overall delivery reported as either *'Excellent'* or *'Very Good'*. Comments included in the feedback provided indication that the learning objectives had been satisfactorily met (e.g. *'thoroughly enjoyed the course – offered me structure/incentive/support', 'Identified what I needed to do'*, '*This has been life changing'*).

Identifying factors contributing to outcomes (5.3b)

Carrying responsibility for administrative and educational aspects of the training required organisation and preparation to ensure that sessions were delivered in line with client needs. Time management was essential to the smooth operation of the training sessions. From an administrative standpoint, allowing ample time to set up the venue, arrange training materials, and review the training session agenda prior to delivery created the space to commence the session in a relaxed frame of mind. From an educational standpoint, time management involved commencing sessions promptly and allowed session objectives and content to be met whilst maintaining a flexible approach to the teaching plan. This boosted confidence in my own ability to map out the expected course of the session and, at the same time, remain receptive to the needs of the participants, flexibly adapting where necessary.

Accessibility was an essential feature of the training plan design, given the target group involved. Though dialogue with Occupational Health team leads, lunchtime (12.30pm-1.30pm) and evening (5.30-6.30pm, 7-8pm) session timings were identified as most convenient and were offered to staff at both hospitals to ensure flexible access. With participants 'dropping in' to training sessions either during or immediately following their work day, time management was important and rules dictating

session start and end times were agreed upon with participants. Considering this dimension mitigated against the issue of staff arriving late which helped to ensure that the session agenda could be met. It was agreed that sessions would commence promptly 10 minutes after the advertised start, and finish 5 minutes prior to the advertised end time (e.g. in a 12.30pm-1.30pm slot, sessions would start at 12.40pm and finish at 1.25pm – a 45-minute session in total). Ensuring the suitability and confidentiality of the rooms in which training was to be delivered was also an important consideration and discussed with project leads, who were responsive in finding suitable rooms for delivery.

Identifying improvements for the future design and delivery of teaching and training (5.3c)

The evaluation identified areas for improvement. Comments fed back included ideas for amending both delivery process (e.g. '*spend less time going over last week's session)* and structural aspects of the project *(e.g. 'weekly sessions hard to commit to')* which were considered with respect to future training prospects.

6.2 Summary - Part 1: Training of NHS Hospital Staff

The experience of delivering training to a group of health professionals within a hospital setting was both a demanding and stimulating one. Having previously worked with a wide range of client groups in various settings, including delivering a behaviour change module to midwives in a hospital setting, the programme represented an opportunity to consolidate and build on learnings from these experiences. Building expertise in designing and delivering a training programme for hospital staff has fostered confidence in working effectively with this target group, and in learning to be receptive to ongoing participant training needs. Cultivating the ability to structure training, collaborate with stakeholders, and to value and enjoy the reflective experience within the current project has helped to support my development and provide the scope to approach future teaching and training opportunities with a more proactive learning stance.

Part 2: Peer-led Discussion Seminar – Journey into Acceptance and Commitment Therapy (23rd March 2017)

The second training project (Part 2) involved presenting an introductory seminar on the topic of Acceptance and Commitment Therapy (ACT). The opportunity arose having been invited by organisers of the peer-led discussion seminar series at City, University of London to deliver an hour-long seminar presentation to health psychology students and health sciences departmental staff.

Assessing teaching and training needs (5.1a)

Having been invited to present as part of the peer-led discussion seminar series at City, I corresponded with the organisers via email to understand the requirements more fully. Once I had ascertained expectations for the presentation (providing an introduction into ACT principles), who the audience would be (peer health psychology students at City and health sciences departmental staff) and their level of experience on the subject (varying degrees of exposure to the topic), I was suitably able to plan the presentation.

Selecting appropriate teaching and training methods (5.1c)

In designing the training, I was motivated to make the topic as interesting, engaging and accessible to the audience as possible. Acceptance and Commitment Therapy, in its essential form, is a largely experiential approach and attendees were invited to participate interactively. Overall, attendees demonstrated a willingness and openness to engage in a 'hands-on' learning experience (Honey & Mumford, 1992). One exercise, for example, invited individuals to think mindfully about someone for whom they cared about – a friend or family member - and experience what it felt like to love and to be loved by that person. Such exercises appeared to be received well by the audience members, a sense that was validated in the evaluation feedback.

Preparing materials for learners to maximise their knowledge and skills (5.1d)

Following communication with the peer-led seminar lead, I gained an understanding of my remit and the target audience. I crafted a presentation accordingly and at the beginning of the presentation outlined a clear agenda which reflected key learning objectives. In total, ten people were in attendance which allowed further flexibility in meeting audience needs more specifically.

Facilitating learning through delivering teaching and training programmes (5.2a)

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To engage individuals with a visual learning style (Kolb, 1985) I used Prezi™, an interactive presentation resource, as a tool to support training delivery. The presentation, titled *Journey into Acceptance and Commitment Therapy* may be accessed in full using the following link (Appendix 6c, page 254):

https://prezi.com/nfdfzdupozy8/acceptance-and-commitment-therapy/

Presenting the material in this way helped to facilitate an experiential approach, and was used to good effect in parallel with the interactive exercises which served to punctuate the presentation. Suggested further reading was also shared at the end of the presentation. To support learning objectives further, the 45-minute seminar was followed by a 15-minute Q&A session, which provided the opportunity to respond accurately to participant queries and aid further learning.

Evaluating outcomes (5.3a)

Evaluation questionnaires were devised and handed out to participants at the end of the Q&A session. In all, ten questionnaires were completed and received (Appendix 6d, page 259). Through implementing the continuous improvement cycle, key learnings were reflected upon and incorporated to improve future training design and delivery.

Attendee ratings of presentation content and overall delivery were reported as being either *'Excellent'* or *'Very Good'*. Aspects that were found to have been helpful included "*not thinking in terms of goals but values*" and interactive exercises incorporated within the seminar such as "*hands as thoughts*".

Identifying factors contributing to outcomes (5.3b)

In reflecting on my experience of delivering the seminar, key aspects which I perceived to have gone well include time management, audience participation, and adequately conveying key ACT principles. In contemplating the affective dimension of the experience, I noted the atmosphere in the room had often been reserved. The presentation material demanded a more didactic style of teaching than I would ordinarily bring to working with clients day-to-day which, to some extent, may explain a heightened sensitivity to this.

Identifying improvements for the future design and delivery of teaching and training (5.3c)

In suggestions made to improve the training, comments from the evaluation included integrating "*evidence for the effects of ACT*", "*a bit more context for its use in weight management*" and "*real*

life examples of using ACT with patients". Feedback from both my supervisor and attendees pointed to a need to consider audience 'motivation' with greater intentionality. Most, if not all, individuals attending the seminar were coming from a research-led rather than a clinically-led stance and with hindsight I may have positioned the presentation more aptly (e.g. with a greater focus on the evidence base for ACT, and existing research for ACT in a weight management context). Another key learning was in bringing 'more of myself' to the training. Based on the evaluation responses, my experiences of working clinically with individuals in the context of weight management appeared to be of interest to many attendees. For the most part, however, I decided to set these experiences aside in favour of a 'pure' focus on ACT. In light of this experience, given similar opportunities in future I would seek to integrate a deeper level of context within my delivery.

6.3 Summary - Part 2: Peer-led Discussion Seminar

Presenting at the peer-led discussion seminar to a research-focused audience rather than to clients posed a different challenge to facilitating group interventions. Likewise, a focus on ACT as a specific training topic and area of personal interest was a novel experience for me and opened up a new avenue for growth. A combination of self-evaluation, participant and supervisor feedback during the process enabled rich personal learning and further built my confidence and aptitude to deliver training more effectively.

6.4 References

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6.5 Appendices

Appendix 6a: 12 Week Training Curriculum Overview: Hospital Staff

Session	Learning	Skills/Techniques	Mindfulness thread (self-awareness)	Toolkit	Strategy (task/practice in the week)
1. Getting started	Self-awareness	Engaging the group Managing a round	'How does it feel to be here?'	MoreLife handbook	Food-mood diary Estimated EER related eating
2. Food approaches for weight loss	Self-awareness Self-reliance	Dietetic led	Mindful eating – raisin/chocolate Mindful eating questionnaire	- Mindfulness explanation and eating exercise - Mindful eating questionnaire	Food-mood diary Toward EER
3. Keeping a food diary	Self-awareness Self-regulation	Identifying feelings Acceptance and Commitment (ACT) principle: I feel X AND will do Y	Mindful breathing	- ACCEPTS handout - Mindful breathing exercise - Leaves on stream exercise	*ACCEPTS* *Mindful breathing* *Food-mood diary* *Leaves on stream* *Train of thoughts*
4. Managing monitoring	Self-awareness	Identifying thoughts ACT principles – thoughts are thoughts not reality	Leaves on stream	- Train of thoughts handout - Thought record	*Thought record*
5. Approaching activity	Self- awareness Self-reliance	Identifying benefits and barriers	Body scan	- Body scan - Approaching activity handout	Activity related goals
6. What matters most? Exploring values	Self-awareness; Self and others	ACT values	80th Birthday celebration: Exercise in imagination	Info about Values ACT values sheet	How do you want to treat others? And yourself? Work, Relationships, Leisure, Personal Growth
7. Weight Influencers	Self-awareness; Self and others	Circles of influence	Cultivating wellbeing	Foresight Map Circles of Influence	Who and what influences? Relationships, work, home and social environment. Problems solving

8. Evaluating food approaches for weight loss	Self-awareness; Self-reliance	Dietetic led	Review of mindful eating exercise and questionnaire	Progress Report What's working?	Food-mood diary Toward EER
9. Handling difficult situations	Self-awareness; Self and others Self-reliance	Overcoming Hurdles	Being with the difficult	Values toward?/Values away from? Identifying solutions Committed action	Assertive communication What makes me feel good?
10. Emotions and food	Self-awareness; Self-regulation	Identifying Self and Building Self	Self-compassion mindfulness exercise	'Five senses' self-soothing Distress tolerance techniques	Awareness of positive vs negative labels
11. Building resources	Self-awareness; Self-reliance	Developing the Psychological and Emotional 'Toolkit' Building Resilience	Passengers on a bus Body scan Cultivating awareness	What tools have you learnt? Four Building Blocks – Self-awareness, Self-regulation, Self & Others, Self-reliance	Implementing the Psychological and Emotional 'Toolkit'
12.Building resources (cont.)	Self-awareness; Self-reliance				

Appendix 6b: Sample Evaluation Questionnaire

Name: _____

Feedback

We would be grateful if you would provide feedback on your experience of attending the MoreLife Programme. Please be honest, your feedback will help us review this service. All responses are kept confidentially.

Please tick the answer that applies

1. How would you rate the overall content of the course?

    a. Excellent ☐
    b. Very good ☐
    c. Good ☐
    d. Fair ☐
    e. Poor ☐

2. How would you rate the overall delivery of the course?

    a. Excellent ☐
    b. Very good ☐
    c. Good ☐
    d. Fair ☐
    e. Poor ☐

3. Are you using any of the following specific strategies to control your food intake?

    a. Calorie counting ☐
    b. Healthy eating & portions control ☐
    c. A planned 'diet' or weight loss club ☐

    d. Other (Please state)
    _____

4. Do you feel you have a more positive relationship with food as a result of attending the MoreLife programme?

    a. Much more ☐
    b. More ☐
    c. Somewhat more ☐
    d. Not really ☐
    e. Not at all ☐

5. How would you rate your satisfaction with the weight loss you have achieved in the MoreLife programme?
    - a. Excellent ☐
    - b. Very good ☐
    - c. Good ☐
    - d. Fair ☐
    - e. Poor ☐

6. Which of the following tools do you use most regularly from the course (you can tick more than one)
    - a. Identifying emotions that influence weight loss behaviour ☐
    - b. Identifying thoughts ☐
    - c. Identifying strategies to support weight loss behaviours ☐
    - d. Practising / developing strategies ☐
    - e. Food diary ☐
    - f. Weight monitoring ☐
    - g. Mindfulness ☐

7. How comfortable were you contributing to the group sessions alongside colleagues?
    - a. Totally comfortable ☐
    - b. Comfortable ☐
    - c. Somewhat comfortable ☐
    - d. Not really comfortable ☐
    - e. Not at all ☐

8. What difference (if any) has your weight loss made to your everyday life?
    - a. Happier ☐
    - b. Improved energy levels ☐
    - c. Increased confidence ☐
    - d. Increased control in work ☐
    - e. Reduction in medication ☐

9. Would you recommend the MoreLife programme to a colleague?
    - a. Definitely ☐
    - b. Yes ☐
    - c. Probably ☐
    - d. Unlikely ☐
    - e. No ☐

In the future we may re-structure the programme so that it is possible to attend a different session each week to better fit with work schedules. This would mean you would be with different people every week.

10. How comfortable do you think you might feel contributing in a different group every week?
    - a. Totally comfortable ☐
    - b. Comfortable ☐

    c. Somewhat comfortable   ☐
    d. Not really comfortable   ☐
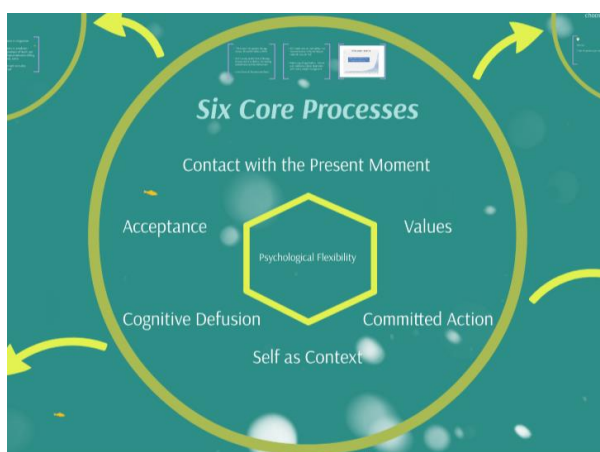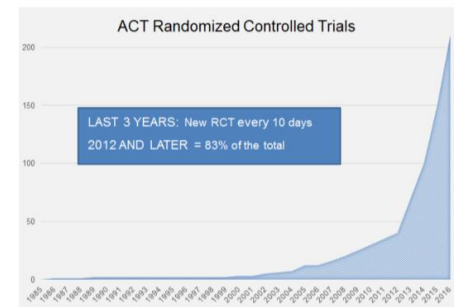   e. Not at all   ☐

11. Any other comments or feedback?

Thank you for taking the time to complete this questionnaire

Appendix 6c: Peer-led Discussion Seminar - Journey into Acceptance and Commitment Therapy (23rd March 2017)

Exercise:

3 minute meditation

- Mindfulness - 'pressing pause'

- Mindful vs mindless - mindlessness as the cause of suffering

- Paying attention and practicing intention

- Relaxation vs 'stillness'

- Take 10 breaths, Drop anchor, notice five things (see, hear, smell)

Acceptance

- Open and accepting of oneself and others

- Accepting 'what is' vs moral rules (e.g. should, can't, ought to, shouldn't have to)

- Choice and ownership over difficult thoughts and feelings

- Acceptance vs resignation

- Acceptance vs avoidance - strong predictor of health and psychological outcomes (Elfhag & Rössner, 2005)

- Validate and normalise, 'and vs but'

Cognitive Defusion
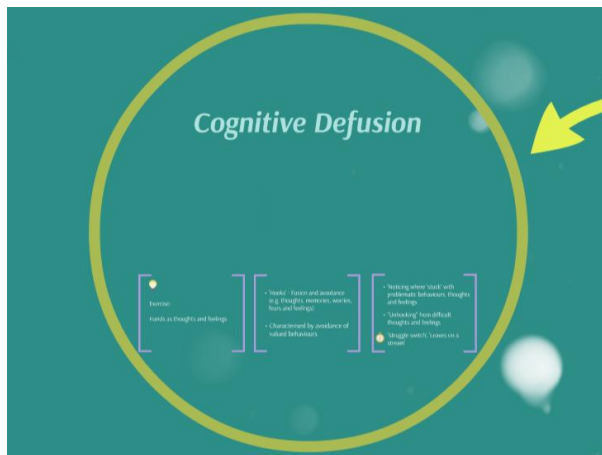
Exercise:

Hands as thoughts and feelings

- 'Hooks' - Fusion and avoidance (e.g. thoughts, memories, worries, fears and feelings)

- Characterised by avoidance of valued behaviours

- 'Noticing where 'stuck' with problematic behaviours, thoughts and feelings

- "Unhooking" from difficult thoughts and feelings

'Struggle switch', 'Leaves on a stream'

Values

"What would you want your life to stand for if you were completely free to choose?"
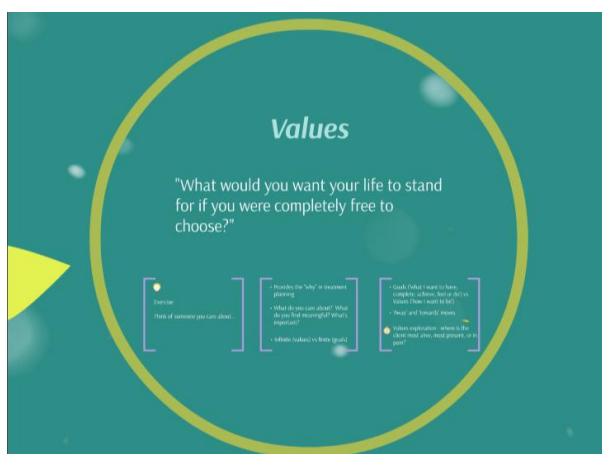
Exercise:

Think of someone you care about...

- Provides the "why" in treatment planning

- What do you care about? What do you find meaningful? What's important?

- Infinite (values) vs finite (goals)

- Goals ('what I want to have, complete, achieve, feel or do') vs Values ('how I want to be')

- 'Away' and 'towards' moves

- Values exploration - where is the client most alive, most present, or in pain?

Committed Action

Exercise:

If we put a camera on the love that you feel for...what would I see you doing?

- Seeks out behaviours consistent with values. Focus on 'doing?'

- "When was the last time you did that?", "What would it be like to try that this week?"

Self as Context

- Who we are is more than just our thoughts of who we are

"If I were you and you were me"
Watcher/observer

Six Core Processes

Contact with the Present Moment

Acceptance   Values

Psychological Flexibility

Cognitive Defusion   Committed Action

Self as Context

Further reading:

Get out of your mind and into your life - Steven C. Hayes

The Happiness Trap - Russ Harris

In this moment - Kirk Strosahl

Things could go terribly, horribly wrong - Kelly Wilson

The ACT Matrix - Kevin Polk

Also:

Association for Contextual Behavioural Science (ACBS)
https://contextualscience.org/

Appendix 6d: Presentation Feedback Questionnaire

CITY UNIVERSITY
LONDON

Journey into Acceptance and Commitment Therapy (ACT)

Thanks for your participation. I'd be very grateful to receive your feedback on the talk.

Please tick the answer that applies

1. How would you rate the content of the talk?

   a. Excellent ☐
   b. Very Good ☐
   c. Good ☐
   d. Fair ☐
   e. Poor ☐

2. How would you rate the delivery of the talk?

   a. Excellent ☐
   b. Very Good ☐
   c. Good ☐
   d. Fair ☐
   e. Poor ☐

3. What ideas/tools have been most useful for you?

4. From your perspective, how could the talk have been improved?

5. Any other comments or feedback?

Appendix 6e: Teaching Observer's Report

Peer-Led Discussion Health Psychology seminars

Title of the session: Introduction to Acceptance Commitment Therapy

Date of the lecture: 23.03.2017

Time of training: 16.00-17.00 (1 hour)

Attendees: 10 City, University of London members of staff (research & academic)

Supervisor's feedback:

Kal delivered a very engaging and informative session on basic principles of Acceptance Commitment Therapy (ACT). The session was interactive, and experiential. Kal was assessing the audience's understanding regularly. In the beginning, Kal set clear objectives of the session and gave a very concise and accurate overview of ACT. Kal was able to talk around his slides well, he is clearly very knowledgeable in the area. Some of the questions from the audience could have been addressed better, since most people who attended came from a research background they were more interested in research evidence and research applications of ACT. Whereas questions were answered with an emphasis on clinical application of ACT and how ACT can be implemented, talking about research evidence and applications would have been also helpful for the specific audience. Kal was professional and friendly during the session and managed to put everyone at ease. Experiential activities he had put in place complemented the context of the session nicely. The amount of information presented was appropriate for the length of the session and the prior knowledge of the audience. Presentation slides contained the right amount of text. Overall, I was very impressed by the high standards of this session and from informal conversations I had with other staff members, the rest of the group also enjoyed the session and found it very informative.