Making Every Contact Count: Improving the Physical Health of People with Mental Health Problems

By

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ABSTRACT

The physical health of people with mental health problems is a significant source of health inequality, with this group three times more likely to have a physical illness and dying 15-20 years earlier than counterparts without recognised mental health problems. Making Every Contact Count (MECC) is an opportunistic health promotion strategy supporting people to make healthier choices and achieve positive long-term lifestyle changes. The purpose of this study was to explore the barriers and facilitators of the MECC approach to improving the physical health of people with mental health problems in primary care. Ten people with mental health problems and ten GPs including stakeholders within the Clinical Commissioning Group were interviewed. Thematic analysis identified themes relating to patient factors, clinician communication, and systemic factors. These were further analysed based on principles of realist evaluation, articulating 'context-mechanism-outcome' (CMO) statements; whereby, in a specified context a particular mechanism generates different outcomes. Patients were more likely to take on brief interventions if they trusted and had good rapport with their clinician. Clinicians valued transmitting knowledge of the effects of the unhealthy lifestyles and how to address these. Systemic factors included continuity of care and the annual review, although a number of patients viewed this as lacking fruitful discussion. Medication reviews were highlighted as an area for improvement. Taken together, these patient, clinician and systemic factors can be used to 'make every contact count' in improving the physical health of people with mental health problems. There are also gaps in terms of clinician skills as well as processes that can be improved to 'making every contact count.'

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ABBREVIATIONS

AMSTAR: Assessment of Multiple Systematic Reviews

CASP: Critical Appraisal Skills Program

CBT: Cognitive Behavioural Therapy

CCG: Clinical Commissioning Group

CINAHL: Cumulative Index to Nursing and Allied Health Literature

CMO: Context-mechanism-outcome

GMC: General Medical Council

GP: General Practitioner

HRA: Health Research Authority

MECC: Making Every Contact Count

NICE: National Institute of Health and Care Excellence

NIHR: National Institute for Health Research

NHS: National Health Service

OECD: The Organisation for Economic Co-operation and Development

PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses

RCGP: Royal College of General Practitioners

RE: Realist evaluation

SMI: Severe Mental Illness

TTM: Transtheoretical Model

GLOSSARY

Making Every Contact Count: An approach to behaviour change based on opportunistic health promotion urging staff to utilise multiple routine contacts to deliver brief interventions.

Brief Intervention: A lifestyle intervention which can be implemented within a short period of time, such as relating to smoking cessation, reducing alcohol consumption, improving diet, increasing exercise and taking care of sexual health.

Integrated Health Care: Health service provision with improved coordination and communication across different health care professionals and services.

Parity of Esteem: Valuing mental and physical health equally.

Realist Evaluation: A form of theory-driven evaluation aiming to identify not just if an intervention works or not, but what works, in which circumstances, and for whom.

CHAPTER 1: INTRODUCTION

1.1 Background

The physical health of people with mental health problems is a challenge to society and source of significant health inequality. This represents a substantial epidemiological challenge, and research indicates that mortality and morbidity rates are increased for individuals diagnosed with severe mental illnesses (De Hert et al., 2011; Russ et al., 2012; Wahlbeck et al., 2011; Correll et al., 2017). People with long term mental health problems have a 70% higher mortality rate than the general population, are three times more likely to have a physical illness and die 15 to 20 years earlier than their peers without a mental health diagnosis (Russ et al., 2012; Wahlbeck et al., 2011; Starace et al., 2017). The systemic and structural health inequalities facing people with mental health problems influences their access as well as utilisation of health care (Patel et al., 2013; Collins et al., 2016). Furthermore, they are a stigmatised and socially excluded group, and mainstream treatments such as long-term medication also negatively impact on physical wellbeing (Corrigan et al., 2014; De Hert et al., 2011). The majority of people with mental health problems are managed in primary care, and the literature indicates that general practice is significant for providing preventative health and medical care for people with mental health problems (Lester et al., 2005; Collins et al., 2016). Primary care is a gatekeeper of health in the UK and professionals try to deal with individuals from a completely holistic perspective as opposed to a disease-based perspective. Consequently, there is significant opportunity for improving the physical health of people with mental health problems in this arena.

This project focused on the Making Every Contact Count (MECC) approach to delivering

brief interventions (Health Education England, 2017a; Local Government Association, 2014). MECC is described by Health Education England as an approach to behaviour change underpinned by the understanding that staff across health, local authority and voluntary sectors have multiple contacts every day with individuals. This description can be challenged since MECC is used to raise awareness around lifestyle interventions but there is no behavioural change witnessed during the MECC interventions themselves; rather, any observable behavioural change will occur subsequent to the MECC intervention. The MECC approach urges staff to utilise these multiple daily contacts to deliver brief interventions (Health Education England, 2017a). The strategy was initially launched in 2010 consequential to the publication of NHS Yorkshire and the Humber's *Prevention and Lifestyle Behaviour Change: A Competence Framework*, and is now increasingly used throughout the UK (NHS Yorkshire and the Humber, 2011). Brief interventions typically involve staff using behaviour change techniques to support patients to take action around unhealthy lifestyle behaviours such as smoking, excessive alcohol consumption and lack of exercise. MECC is one strategy to improve the physical health of people with mental health problems by supporting them to make healthier choices and achieve positive long-term lifestyle changes (Health Education England, 2017a; Local Government Association, 2014). It is an opportunity to achieve an integrated approach to addressing health inequality as part of a range of interventions. Its foundation is opportunistic health promotion on different levels according to clinician experience and is arguably suited to primary care settings. For example, the MECC website includes in its evaluation section a study of screening and brief interventions in obesity in primary care, concluding this was acceptable to patients as well as an effective means of reducing weight (Aveyard et al., 2016).

1.2 The Research Context

For a number of years, the issue of poor physical health for people with mental health problems has been a high priority. The main causes of death for these individuals are heart disease, stroke, liver disease, respiratory disease and cancer (Correll et al., 2017; Starace et al., 2017; De Hert et al., 2011; Russ et al., 2012). This health detriment may be because of lifestyle factors, side-effects of psychotropic medication and disparities in healthcare access, utilisation and provision (De Hert et al., 2011). For example, obesity rates are as high as 57.8% in people diagnosed with severe depression (De Hert et al., 2011).

Subsequently, policy and professional concerns have escalated, and a number of key UK reports have endeavoured to address identified concerns. NHS England has promoted a parity of esteem between physical and mental health whereby they should be viewed equally important. In particular the *Health and Social Care Act 2012* mandated responsibility for the NHS to deliver parity of esteem (Department of Health, 2012). The earlier *Marmot Report* argued that to improve health for all and reduce the steepness of the social gradient of health inequalities, action is needed across the board with a scale and intensity that is proportionate to the level of disadvantage – explained as a principle termed 'proportionate universalism' (Marmot, 2010). Proportionate universalism is very relevant to the care of people with mental health problems considering their significantly worse physical health outcomes. *Healthy Lives, Healthy People*, the Government strategy for Public Health in England, outlined the Government's commitment to reducing health inequality by improving the health of the poorest, the fastest (Department of Health, 2010). It states that this can be achieved by empowering individuals to make healthy choices and giving communities the tools to address their own specific needs. *No Health Without Mental Health* set out an ambition to work towards six objectives for better mental health for the population; one of these six objectives

is for more people with mental health problems to have good physical health (Department of Health, 2011; Vladu et al., 2016). This includes addressing inequalities which lead to poor mental health, inequalities which are a result of poor mental health and inequalities in service provision (Department of Health, 2011).

1.3 Problem Statement

The identified health inequalities for individuals with severe mental illnesses represent a widespread challenge to services and society, particularly the demonstrably increased morbidity and mortality rates (Starace et al., 2017; De Hert et al., 2011; Russ et al., 2012; Wahlbeck et al., 2011). There is a need for integrated healthcare addressing both mental and physical health to improve the health of people with mental health problems (Coventry et al., 2015; Naylor et al., 2016; Patel et al., 2013; Xiong et al., 2014). Despite the growing awareness of the importance of parity of esteem for people with mental health problems, there is limited evidence on the effectiveness of evidence for using a combined approach to behavioural interventions such as MECC to improve the physical health of this vulnerable group. Public Health England, NHS England and Health Education England published the *MECC Consensus Statement* including a subchapter explaining how MECC can help reduce inequality such as by engaging people who would otherwise not engage in brief interventions (Public Health England, NHS England and Health Education England, 2016). Research has shown that the MECC approach to opportunistic health promotion has the potential to improve the overall health of the population at a low cost due to utilising existing services (Lawrence et al., 2016), and that even little improvement at a population level could have significant gains (Lawrence, & Barker, 2016). However, there is a little research in evaluating the implementation of MECC in primary care. Furthermore, no such evaluation has been undertaken for people with mental health problems in primary care, nor the views and

subjective experiences of patients and clinicians using MECC within this group. Further studies have been called for to explore if the utilisation of MECC has an effect on wider issues such as staff health, cost-effectiveness in different settings, outcomes on behaviour and systemic changes needed to make MECC sustainable (Dewhirst, & Speller, 2015).

1.4 Purpose of the Study

The purpose of this study was to explore the barriers and facilitators of the MECC approach for clinicians and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of people with mental health problems. The findings of this research may inform practice so that clinicians and non-clinicians within primary care are better able to 'make every contact count' with people with mental health problems to improve their physical health. Drawing upon a realist framework, the study aims to explore the value of MECC within primary care, if it works, for whom, in what contexts, and any unintended consequences; if it does not work, then for whom and in what circumstances. Thus, the purpose of this study correlates with the ethos of MECC; which is to contribute to empowering healthier lifestyle choices, exploring the wider social determinants that influence health, and reducing health inequality (Public Health England, NHS England, & Health Education England, 2016). This study has the potential to influence policy to reduce inequalities in the physical health care of those with mental health conditions who have a reduced life expectancy due to unhealthy lifestyle behaviours and possibly limited access to brief interventions due to clinician bias.

The purpose is in line with priorities of the funding body for the research, East Lancashire Clinical Commissioning Group (CCG), which commissions health services for Burnley, Hyndburn, Pendle, the Ribble Valley (excluding Longridge) and Rossendale. The CCG

prioritizes addressing the wide inequalities that exist within the locality. Furthermore, as an academic GP trainee at the time of undertaking the study (now practicing as a GP), the purpose was in line with my training needs and interest in health promotion. The latter is part of the Royal College of General Practitioners curriculum for trainees chiming in with a personal interest of mine in addressing health inequalities.

1.5 Research Methodology

The research is based upon principles of realist evaluation focusing on understanding *how* the programmes have worked, *for whom* and in *what circumstances* (Pawson & Tilley, 1997). For commissioners and policy-makers this is more valuable than simply asking *if* an intervention works. Principally, my task was to identify causal mechanisms responsible for generating outcomes and the contexts within which these mechanisms are activated within a primary care setting. This research explored experiences of 'Making Every Contact Count' and potential barriers and facilitators to implementation and how challenges can be overcome to create a systematic change in practice to improve the physical health of people with mental health problems. It involved interviews of ten people with mental health problems and ten clinicians including stakeholders within the CCG.

Ethics is an integral aspect of any research, and recommended ethical principles for clinical research were followed, including securing ethical approval via the National Health Service (NHS) Health Research Authority (HRA) process and formal university ethical approval. Further details regarding methodology are discussed in the methodology chapter.

1.6 Research Questions

Six specific research questions guided the enquiry. They sought to uncover the contexts, mechanisms and outcomes generated by exploring barriers and facilitators to implementing brief interventions for people with mental health problems in primary care.

RQ1. What experience do people with mental health problems have of receiving brief interventions to improve their physical health?

RQ2. What experience do clinicians have of delivering brief interventions to people with mental health problems to improve their physical health?

RQ3. Which facilitators exist for people with mental health problems to engage with brief interventions to improve their physical health?

RQ4. Which facilitators exist for clinicians to implement brief intervention approaches to improve the physical health of people with mental health problems?

RQ5. Which barriers exist for people with mental health problems to engage with brief interventions to improve their physical health?

RQ6. Which barriers exist for clinicians to implement brief intervention approaches to improve the physical health of people with mental health problems?

1.7 Thesis Outline

The thesis begins with the introduction chapter which highlights the background and research context as well as the research questions and methodology. The second chapter presents a review of the relevant literature including mental and physical health, MECC, a theoretical framework and primary care challenges. The third chapter consists of the methodology, explaining the research design, sample and recruitment, data collection, data analysis, ethics and research quality. The fourth chapter gives an account of the findings, exploring the three

main themes and context-mechanism-outcome structures. The fifth chapter discusses these findings and provides a conclusion and recommendations. Supplementary material relevant to the conduct of the research is provided in appendices.

1.8 Chapter Summary

The poor physical health of people with mental health problems is a widespread challenge, and research indicates that mortality and morbidity rates are increased for individuals with severe mental illnesses (Starace et al., 2017; De Hert et al., 2011; Russ et al., 2012; Wahlbeck et al., 2011). Associated with this, it is a government priority to address parity of esteem between physical and mental health services. The purpose of this study was to explore experiences, barriers and facilitators of the MECC approach for clinicians and patients in a primary care setting. The chapter has highlighted the research background and articulated a problem statement that informed the choice of research methodology and relevant research questions. An outline of the thesis is included. The following chapter will discuss in more depth the available literature regarding the physical health issues of people with mental health problems, define the MECC approach in more detail, and offer a theoretical framework for understanding brief interventions and challenges within primary care.

CHAPTER 2: REVIEW OF THE LITERATURE

2.1 Introduction

The purpose of this study was to explore the barriers and facilitators of the MECC approach for clinicians and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of patients with mental illness. Overall, individuals diagnosed with mental health problems have shorter life expectancy (De Hert et al., 2011; Russ et al., 2012; Wahlbeck et al., 2011; Correll et al., 2017; Starace et al., 2017). There are a number of factors that contribute to this, including unhealthy lifestyle choices which potentially can be due to negative symptoms of mental illness and impaired emotional regulation (Scott et al., 2013). The side-effects of psychotropic medications these patients may be started on can lead to weight gain and impaired glucose tolerance (De Hert et al., 2012). Disparities in healthcare access, utilisation and provision play a role (De Hert et al., 2011). Diagnostic overshadowing may also occur when the clinician attributes physical symptoms to mental health causing a delay in treatment and increase in complications (Nash, 2013).

Mental health problems contribute significantly to the worldwide disease burden, accounting globally for an estimated 32·4% of years lived with disability, more than any other illness, and 13·0% of disability-adjusted life-years (Vigo et al., 2016). This is on equal par with cardiovascular and circulatory disease (Vigo et al., 2016). To deal with this challenge, there is an increased need for holistic, integrative approaches to treat people with mental health problems and to improve their physical health and life expectancy rates. As a result, several brief intervention programs have been established to improve the physical health of patients with mental health problems. This chapter will present the policy content followed by a literature search detailing studies of combined brief interventions as well the MECC approach, the correlation between mental and physical health, brief intervention models, a

theoretical framework to understand behavioural change and finally contextual challenges faced by primary care clinicians.

2.2 Policy Content

The challenge of addressing inequality of health is not new. In fact, healthcare can exacerbate and amplify health inequality based upon the healthcare context. In 1971 General Practitioner Dr John Tudor Hart first described the inverse care law in his *Lancet* paper (Hart, 1971). The first aspect of this is often quoted, that the availability of good medical care tends to vary inversely with the need of the population. The second aspect is far more neglected, as Dr Hart continued by stating that the inverse care law operates to a greater extent where medical care is most exposed to market forces, and conversely it is minimised when market forces are reduced. One could speculate that the second aspect does not make financial sense to propagate, and we are in an era which has an NHS whose finances are increasingly challenging and privatisation is increasingly occurring. NHS provision by private sector providers has progressively increased over the last 10 years (Sutaria, Roderick & Pollock, 2017). In 2016-2017, £9 billion was spent on private provision of secondary care services, 7.7% of total NHS expenditure (Department of Health, 2017). Hart, and more recently Wilkinson and Pickett in 2010, referred primarily to social inequality, i.e. the health of the rich in comparison the poor (Hart, 1971; Wilkinson, & Pickett, 2010). However, this is equally as relevant to the inequality in healthcare provision for people with severe mental illness where healthcare inequality may be compounded by a number of issues including systemic issues such as the separation of physical and mental health services (Lawrence, & Kisely, 2010). This lack of parity of esteem has been increasingly addressed by a number of policy papers.

In 2013 the Royal College of Psychiatrists published *Whole-person care: from rhetoric to reality. Achieving parity between mental and physical health* (Royal College of Psychiatrists, 2013). This paper was written upon request of the Minister of State for Care Services, on how to achieve parity of esteem for mental and physical health services, as well as a definition and vision of parity of esteem. It focused on holistic care and valuing physical and mental health as equal and connected. *Improving the Physical Health of People with Severe and Enduring Mental Illness (SMI)* provided a practical toolkit focusing on commissioners prioritising physical health services for this group such as via upskilling and engaging staff (Scharf et al., 2014). The *Five year forward view* in 2014 was an important paper from NHS England stepping out its priority of physical health for people with mental health problems and emphasised to achieve parity between physical and mental health by 2020 (NHS England et al., 2014). In 2016 the *Five year forward view for mental health* was even more direct, stating '*NHS England should undertake work to define a quantified national reduction in premature mortality among people with severe mental illness*' (The Independent Mental Health Taskforce, 2016, p. 73). Noticeably the first of its eight chapters focused on commissioning for prevention and quality care. In July 2017 Health Education England released a report *Stepping forward to 2020/21: The mental health workforce plan for England* services (Health Education England, 2017b). This was written to support the delivery of the *Five year forward view for mental health* and further included the need for testing innovations such as digital services (Health Education England, 2017b). Whilst these policy documents all contain useful and important concepts, they demand for change rather than the status quo, calling for investment in services. This is in stark contrast to the funding invested in mental health services. The Royal College of Psychiatrists found that the income of mental health trusts has progressively reduced when inflation is taken into account, with total income in England falling by £105 million between 2011-2012 and 2016-2017 (Royal College of Psychiatrists,

2018). Whilst further inquiry and policy speculation to find solutions to the lack of parity of esteem is needed, one may argue that if the Government were serious about making a change as opposed to token gestures, funding would have increased to address this challenge rather than the opposite which has occurred.

2.3 Literature Search Strategy

The research question of interest was what is the evidence base for multiple brief interventions in primary care to improve the physical health of people with mental health problems? This was broader than simply focusing on MECC-based interventions given the understanding that MECC is an approach for providing brief interventions; however the concept has been created as a means of increasing and improving brief interventions and is relatively recent. Researching the broader concept of brief interventions would prevent other relevant papers from being excluded in the search strategy. Much of the literature focuses on single brief interventions as opposed to a combined approach hence a broader question was felt to be more beneficial given potentially few papers being relevant.

In order to obtain the most relevant and recent literature, I utilized a number of search engines and databases. The databases chosen for the review were Embase, Medline, Cochrane, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Psychinfo. Inclusion criteria were English language only, human males and females, between 1996-2017. 20 years was felt to be an appropriate length of time given the increasing research interest in this field within recent years whilst balancing and reviewing older yet still relevant literature. Publication types included systematic reviews, randomised controlled trials and qualitative research. The exclusion criteria included studies not addressing physical health, not involving people with mental health problems, not based within primary care, those

involving single interventions and paediatric studies. Reference lists of papers included in the review were also reviewed.

Search terms used were:

Physical health OR morbidity OR mortality OR life expect* OR survival OR death rate*

AND

primary care OR primary healt* OR general practice OR community

AND

mental health OR mental illness OR mental disorder* OR depress* OR anxiety OR psychiatric* illness OR psychiatric disorder OR psychosis OCD OR obsessive compulsive disorder OR bipolar* OR schizo*

AND

Combined brief intervention* OR combined intervention* OR brief intervention* OR motivational interview* OR multiple intervention*

The search identified 436 papers as potentially relevant. Duplicates were removed and upon review of titles and abstracts two papers were identified as meeting the inclusion criteria as almost all other papers referred to single intervention studies. The papers were read in full to ensure relevance and references were reviewed to search for further relevant papers. A further two papers were found which met the inclusion criteria. In total, these four papers formed the basis of the literature review during which the relevant Critical Appraisal Skills Program (CASP) tool was used to critically appraise each paper based on the methodology used in the paper. The summary is below.

Table 1 Table of the Literature Review Articles

Author & Date	Aim of Study	Methodology	Main findings	Strengths and Limitations
Heald, A., Montejo, A. L., Millar, H., De Hert, M., McCrae, J., & Correll, C. U. (2010).	Review current knowledge of physical health in patients with schizophrenia and to make practical recommendations	Literature review with recommendations	-Select antipsychotic with low risk of weight gain and adverse metabolic effects -Routinely assess and monitor physical health parameters -Same physical health and lifestyle advice should be offered as offered to the general population -Manage cardiovascular risk factors -Redesign of healthcare systems needed - Responsibility for physical health also with psychiatry	-Useful practical recommendations -Includes interventions in primary care as well as secondary care
Baker, A. L., Kay-Lambkin, F. J., Richmond, R., Filia, S., Castle, D., Williams, J., & Thornton, L. (2011).	Review of a healthy lifestyle intervention for people with severe mental disorders	Cohort study	-Significant cardiovascular benefits and reduction in smoking -Multi-component lifestyle interventions are feasible and effective	-High retention rates -Intensive schedule of 17 contacts over 38 weeks -Short follow-up making difficult to reach long-term conclusions

Baxter, A. J., Harris, M. G., Khatib, Y., Brugha, T. S., Bien, H., & Bhui, K. (2016).	Review of health interventions aimed at reducing excess mortality due to chronic disease in people with severe mental illness	Meta-review of 16 systematic reviews	-Antipsychotic and antidepressant medication had some protective effect -Integrative community care programs may reduce morbidity and mortality -Lifestyle interventions can improve risk factors	-Used PRISMA guidelines and AMSTAR measurement tool -Only included reviews that used systematic search methods and reported effect sizes- 16 of 134 reviews included -Measured physiological markers, not including studies measuring behavioral change -Recent studies after 2014 not included -Short follow-up

Hardy, S., Deane, K., & Gray, R. (2012).	Explore the views of patients with severe mental illness about their physical health check when performed by a practice nurse who had undertaken specific training	Qualitative interviews	-Patients displayed a good understanding of diet and exercise but not the risk of cardiovascular disease -Found the health checks worthwhile, in particular when continuity of care was present -Reported making lifestyle changes -Preferred further information regarding blood tests and medication	-Patient perspective given -Small number from those invited were interviewed -Interviews not recorded

Baxter and colleagues wrote the paper *Reducing excess mortality due to chronic disease in people with severe mental illness: meta-review of health interventions* (Baxter et al., 2016). This was a meta-review of 16 systematic reviews exploring the strength of evidence for interventions to improve life-expectancy, grouping interventions as mental health interventions, integrative community care, interventions for lifestyle factors and screening and monitoring of health parameters. It found antipsychotic and antidepressant medication had some protective effect on mortality when adherent to treatment, integrative community care programs may reduce morbidity and mortality but the '*active ingredient*' (i.e. the reason for this reduction) is not clear, and lifestyle interventions can improve risk factors although long-term data is lacking. There is a need for further research to address lifestyle interventions of people with mental health problems. My research aimed to address the *active ingredients* by exploring the barriers and facilitators of the MECC approach to this group in primary care as well as contexts, mechanisms and outcomes. The meta-analysis used Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and assessed quality via the Assessment of Multiple Systematic Reviews (AMSTAR) measurement tool to ensure rigor and quality. It excluded systematic reviews which measured behavioral change and in total only 16 of the 134 reviews initially found were included. This means that trials relevant to brief interventions may potentially have been excluded. A further weakness of the paper is that it was published in 2016, although systematic reviews were only included until 2014 and the short-term follow-up of studies made it difficult to make long-term conclusions.

Baker and colleagues wrote about *Healthy lifestyle intervention for people with severe mental disorders,* appreciating that cardiovascular disease is the largest single cause of death and these populations have a much higher incidence of smoking and obesity (Baker et al., 2011).

The paper described four health determinants of disease. These include the broad features of a society and its environmental factors, secondly socioeconomic status and knowledge, attitudes and beliefs, thirdly health behaviors and psychological and safety factors and finally biomedical factors such as weight and blood pressure. Interventions to change multiple health behaviors were shown to be both feasible and effective, and a healthy lifestyle intervention was described. This was the first study of its kind in 2009 developing a multi-component healthy lifestyle intervention focusing on cardiovascular disease risk score and smoking. There was significant improvement as well as a high retention rate of 84% of patients attending all 17 sessions over a period of 38 weeks. This was a short-term study and longer-term outcomes are unknown. The study highlighted that despite a lack of evidence in research in multi-component lifestyle interventions, this approach can be effective in terms of improving health. However, the research did not explore the views of people with mental health problems who received the intervention nor perception of acceptability. The need for qualitative research to explore whether both people with mental health problems as well as clinicians appreciate and are keen to give and receive brief interventions becomes increasingly important before systemic changes can be made. My research aimed to address this.

Heald and colleagues wrote about the *Management of physical health in patients with schizophrenia: practical recommendations* (Heald et al., 2010). The focus of this paper was improving health via a multidisciplinary approach in the community setting led by psychiatry. It included a recommendation to improve the communication between GPs and psychiatrists and that the same physical health and lifestyle advice should be offered as offered to the general population. This includes diet, smoking, alcohol and sexual health advice as well as immunizations and screening programs. All of these take place within

primary care. The paper suggested priorities to include selecting an antipsychotic with low risk of weight gain and adverse metabolic effects, routine assessment and monitoring physical health parameters, and managing cardiovascular risk factors in accordance with the general population. It described a need for redesign of healthcare systems to make significant improvements as well as emphasizing the responsibility psychiatrists have with regards to the physical health of their patients. Noticeably it was published in *European Psychiatry* whose target audience is primarily psychiatrists. However, the recommendations are clear and can be incorporated in general practice, such as for diet, weight, smoking and alcohol. Again it crystallises the lack of research in how this can be achieved, as well as the barriers and facilitators to this.

Hardy and colleagues wrote *The Northampton Physical Health and Wellbeing Project: the views of patients with severe mental illness about their physical health check* (Hardy, Dean, & Gray, 2012). In contrast to the previous studies, this was a qualitative study. Six practice nurses in different health centers were specifically trained in delivering physical health checks for people with severe mental illness and at one of the practices. The patients who had the physical health checks were invited for interview. Five of the 29 who were invited took part in the interviews. Patients displayed a good understanding of diet and exercise but not of the risk of cardiovascular disease. They found the health checks worthwhile, in particular when continuity of care was present. They reported making lifestyle changes and said they would have preferred further information regarding blood tests and medication. The authors concluded training for physical health checks should incorporate patient views such as discussing the importance of physical health checks as well as describing what blood tests were for and explaining medication side-effects. Due to the small number of interviewees, five out of 29 who were invited, the results may not be representative and potentially only

those who were interested in their physical health and engaged with the physical health checks attended. Furthermore, the interviews were not recorded which can lead to interviewer recall bias due to the interviewers remembering what they were most interested in. The study is not immediately transferable to the general practice setting in which people who see their GP could potentially not be keen to for lifestyle interventions due to seeing the clinician expecting a more medical management as opposed to lifestyle interventions which may be perceived to be more nursing related. Further research would be needed to address this question, which my research aimed to answer.

The above four papers highlight heterogeneous types of research. This is a challenge making it difficult to draw equal comparisons across the existing evidence or conclusively say what they collectively mean. They involve different samples, populations, interventions and research methods. Each offers a different perspective on lifestyle interventions for people with mental health problems and make the need clear for research of patient as well as clinician perspectives on brief interventions for opportunistic health promotion via the MECC approach.

The search strategy resulted in few papers being identified, which may be a limitation of the approach or a consequence of the research available being focused around single interventions. The lack of research in fact can be considered to emphasize the need for research within this area. A limitation of the search and review is that only papers in English journals were included. There may have been relevant articles in different languages, however due to the limited time and resources available, research in other languages was not considered.

2.4 Mental and Physical Health

As discussed earlier, there is a great inequality of physical health of people with mental health problems. They have a 70% higher mortality rate than the general population, are three times more likely to have a physical illness and die 15 to 20 years younger than their peers (Starace et al., 2017; Russ et al., 2012; Wahlbeck et al., 2011). The main cause of death for these patients is heart disease, stroke, liver disease, respiratory disease and cancer (Russ et al., 2012). The gap in life expectancy is worsening (Starace et al., 2017; Lawrence, Hancock, & Kisely, 2013). Patients with schizophrenia and bipolar disorder are two to three times more likely to develop diabetes (De Hert et al., 2011). Obesity rates are as high as 57.8% with people diagnosed with severe depression (De Hert et al., 2011). An individual with depression has a relative risk of 1.90 of developing coronary heart disease (Nicholson, Kuper, & Hemingway, 2006). Disparity in healthcare access and utilisation and access play an important role, including reduced uptake of preventative health screening (Xiong et al., 2014). Primary health care provision for this group is worse than that of the general population (Lester, 2013).

Improving health in the most vulnerable groups can make important contributions to preventing further increases in health inequalities (Marmot, 2010). This includes inequalities in the physical health of care of people with mental health problems. In improving physical health, there may be also economic benefits from increased independence, increased coping, decreased isolation and a greater likelihood of returning to work for those suffering with mental health problems (McDaid, 2011).

There have been increasing calls for new models of care and for them to be more integrated and encompassing both physical and mental health (Naylor et al., 2016). *Improving the*

Physical Health of Adults with Severe Mental Illness (SMI) focused on commissioners prioritising physical health services for this group, highlighting increased uptake of services when co-located, mental and physical health practice were integrated, and staff perception was of belonging to a team (Scharf et al., 2014). National Institute for Health and Care Excellence (NICE) guidance *Psychosis and schizophrenia in adults* described how comprehensive physical health assessments are needed (National Institute for Health and Care Excellence, 2015). It placed an emphasis not only on managing the mental health, but also the physical health of patients, and means to be taken to do so. In particular, it stated that those on antipsychotics should be provided a combination of physical activity and healthy eating advice by their healthcare practitioner (National Institute for Health and Care Excellence, 2015). Hence physical health screening tools have been developed and used within primary care such as the *Lester UK adaptation—positive cardiometabolic health resource* (Shiers, Rafi, Cooper, & Holt, 2014). The core message of this is: '*don't just screen—intervene* (Shiers, Rafi, Cooper, & Holt, 2014, p.2).' This indicates that clinicians may ask about unhealthy lifestyle behaviours or review risk factors but health improvement is found not solely in documenting unhealthy behaviours or abnormal results, but rather in providing some sort of health intervention in order to reduce overall cardiovascular risk (Shiers et al., 2014). Standardising clinical letters between GPs and psychiatrists could be a key element of enhancing routine practice; this can improve quality of care due to better communication and continuity of care across organisational boundaries (NHS England, 2016).

In order for the effective and equitable addressing of the disease burden, healthcare should be integrated through bundling interventions and strategies, targeting multiple conditions and risk factors simultaneously. The aim would be to create country-wide changes, helping the

subgroups most vulnerable; relying on the contribution of many sectors and stakeholders (Bauer, Briss, Goodman, & Bowman, 2014). The integration of primary care with behavioural health care provides a promising way of improving access of people with mental health problems to a greater range of health services (Scharf et al., 2014). Furthermore, targeted promotion of healthy lifestyles is one way in which the gaps between the least and most deprived can be reduced (Khaw et al., 2008). The evidence base for the effectiveness and cost-effectiveness of brief interventions is strong (Bauer et al., 2014), particularly for alcohol (Harris et al., 2011; National Institute for Health and Care Excellence, 2010; World Health Organization, 2009), and smoking (Mooney, 2013). Physical activity levels have been shown to increase after brief interventions within primary care, which also improves mental health (Elley, Kerse, Arroll, & Robinson, 2003; Fox, 1999; Powers, Asmundson, & Smits, 2015). However, there is considerable variation in how these approaches are planned and delivered and their effectiveness across different settings (Elley, Kerse, Arroll, & Robinson, 2003; Fox, 1999; Powers, Asmundson, & Smits, 2015).

2.5 MECC

Making Every Contact Count (MECC) in an approach that regards making the best of every opportunity when engaging with patients, to ensure an improvement in their health and wellbeing (Local Government Association, 2014). The MECC approach aims to provide support to individuals to change their lifestyles in order to prevent poor health, improve health, and decrease health inequalities (Local Government Association, 2014). A 40 minute training package is available in the North West to understand how to frame healthy conversations around the four As of Ask, Assess, Advise and Assist (Collins, 2015). Furthermore, the MECC approach is based on professionals and non-professionals taking opportunities to deliver health promotion by way of healthy conversations and spotting ideal

opportunities to introduce physical health and wellbeing into the conversation, without offending the individual (Local Government Association, 2014).

MECC is becoming increasingly researched. The *MECC Consensus Statement* describes a strong evidence base for this approach (Public Health England, NHS England, & Health Education England, 2016), highlighting the NICE document *Behaviour change: individual approaches* (National Institute for Health and Care Excellence, 2014). NICE provided a strong evidence base for brief interventions for smoking, alcohol, diet and exercise. Their cost-effectiveness has been proven based on research including systematic reviews and meta-analyses (National Institute for Health and Care Excellence, 2014). South Tyneside has been given as an example where MECC-trained street cleansing team lost a combined weight of 15 stone (Public Health England, NHS England, & Health Education England, 2016). The *MECC Consensus Statement* continues to state that all new approaches to MECC should be evaluated (Public Health England, NHS England, & Health Education England, 2016). Tools have been developed to support this; these include the training quality marker checklist, the MECC implementation guide and the MECC evaluation framework (National Institute for Health and Care Excellence, 2014). A retrospective interview study evaluating MECC in 2013 found stakeholders to be generally positive about MECC and its potential to change lifestyle behaviour (Nelson, De Normanville, Payne, & Kelly, 2013). Lawrence and colleagues conducted a quantitative study with a sample of 148 health and social care practitioners (Lawrence et al., 2016). The participants were trained in specific skills needed to assist behaviour change, such as listening, creating chances to talk about health behaviours, reflecting, utilising open questions and goal-setting. The skills of the participants were evaluated post-training at three time points, and compared with the skills of untrained practitioners (Lawrence et al., 2016). The trained practitioners showed significantly better

and more regular use of the skills needed to assist behaviour change when compared to untrained peers until one year after training (Lawrence et al., 2016). Since this way of approaching physical health improvement utilises existing services to assist behaviour change, this means of training intervention could improve the general public health at a low cost. The findings of the above studies indicate the possibility of MECC to positively influence the physical health of people with mental health problems if applied properly and consistently.

The MECC approach can be criticised as a means to operate without any significant funding requirement and primarily utilising existing infrastructure. This makes it an appealing solution from an economical perspective, whether or not it works. Furthermore, by emphasising the responsibility of clinicians and other professionals in delivering brief interventions, there may be a diffusion of responsibility of behavioural change away from individuals.

2.6 Theoretical Framework

As discussed in further detail later in the methodology chapter, realist evaluation is theory-driven. Candidate programme or middle-range theory(ies) and evidence are identified to form context-mechanism-outcome (CMO) configurations (Pawson and Tilley, 1997). An example of this is found in the National Institute for Health Research (NIHR) RAPPORT study, a realist evaluation of patient and public involvement within research (Wilson et al., 2015). In the above study, Normalisation Process Theory (Murray et al., 2010) was chosen as the middle-range theory, prior to data collection, to explain how patient and public involvement works and can be embedded within normal research practice. Figure 1 provides a diagrammatical representation of the stages that should be followed, based on the work of

Pawson and Tilley (2004).
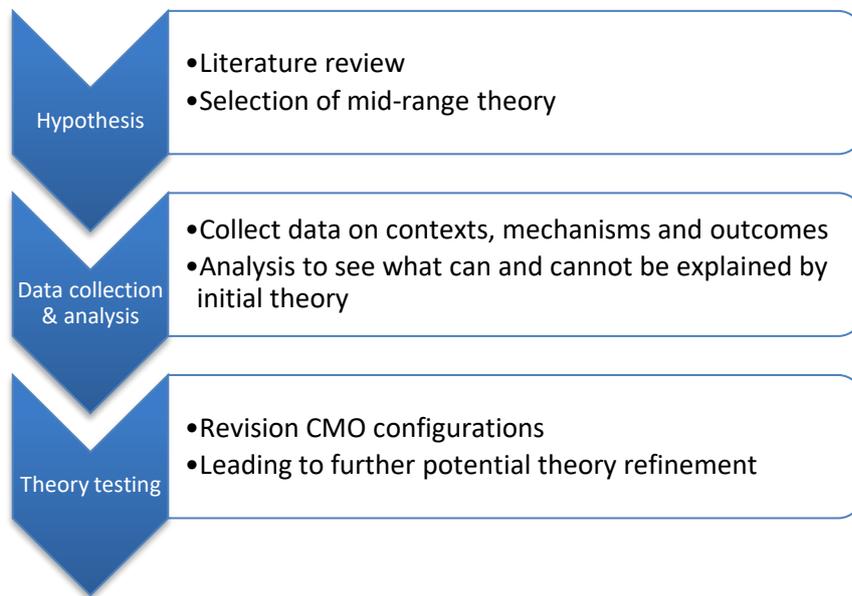
Figure 1 Stages of Theory Development in Realist Evaluation

Realist evaluation proceeds via the stages outlined in Figure 1. The notion of mid-range

theory begins with an observable phenomenon and in a process of abstraction forms the basis

for the sort of statements that can be tested by research inquiry. They therefore become

verifiable by data. In realist evaluation, a candidate theory (mid-range theory) is proposed

that can then be supported (or refuted) by the identification and refinement of context-

mechanism-outcome relationships.

As part of this thesis, a number of models regarding lifestyle change were reviewed to find

which could be best used as a theoretical framework for the MECC research. Each will be

described below. The theoretical framework that was found to be most appropriate was the

transtheoretical model (TTM), which encompasses behavioural change to be an intentional

process (Prochaska, 2013).   This process happens over a period of time and includes six

change stages. These are precontemplation, contemplation, preparation, action, maintenance

and termination. The model is further elaborated on in table 2 below.

Table 2 The Transtheoretical Model Constructs (Prochaska, 2013)

Constructs	Description
Stages of Change	
Precontemplation	No intention to take action within the next 6 months
Contemplation	Intends to take action within the next 6 months
Preparation	Intends to take action within the next 30 days and has taken some behavioral steps in this direction
Action	Changed overt behavior for less than 6 months
Maintenance	Changed overt behavior for more than 6 months
Termination	No temptation to relapse and 100% confidence
Processes of Change	
Consciousness raising	Finding and learning new facts, ideas, and tips that support the healthy behavior change
Dramatic relief	Experiencing the negative emotions (fear, anxiety, worry) that go along with unhealthy behavioral risks
Self-reevaluation	Realizing that the behavior change is an important part of one's identity as a person
Environmental reevaluation	Realizing the negative impact of the unhealthy behavior or the positive impact of the healthy behavior on one's proximal social and/or physical environment
Self-liberation	Making a firm commitment to change
Helping relationships	Seeking and using social support for the healthy behavior change
Counterconditioning	Substitution of healthier alternative behaviors and cognitions for the unhealthy behavior
Reinforcement management	Increasing the rewards for the positive behavior change and decreasing the rewards of the unhealthy behavior
Stimulus control	Removing reminders or cues to engage in the unhealthy behavior and adding cues or reminders to engage in the healthy behavior
Social liberation	Realizing that the social norms are changing in the direction of supporting the healthy behavior change

Decisional Balance	
Pros	Benefits of changing
Cons	Costs of changing

Self-Efficacy	
Confidence	Confidence that one can engage in the healthy behavior across different challenging situations
Temptation	Temptation to engage in the unhealthy behavior across different challenging situations

Individuals in the precontemplation stage do not intend to change or take action to change soon, usually in the next six months (Prochaska, 2013). Individuals in this stage may be uninformed about the repercussions of their behaviour. For example, a heavy smoker may have no interest in quitting. Individuals in the contemplation stage intend to adjust their behaviour within the following six months. In this case the smoker is considering quitting, possibly due to being given information about the harms of smoking, but has not yet started any preparation to quit. Individuals in preparation intend to change soon, usually within the next month, and have already taken steps toward change in the past year. In this case the smoker plans and prepares to quit. Individuals in the stage of taking action have modified their lifestyles during the last six months. Hence the smoker stops smoking. Individuals in the maintenance stage have modified their behaviour and lifestyles, and are focused on preventing relapse. There may still be a temptation of cigarettes, however abstinence from smoking is maintained. Individuals in the stage of termination have no temptation as well as 100% self-efficacy. The temptation to smoke has ceased. Regardless of their emotional state (depression, anxiety, anger, or stress) these individuals will not relapse into previous unhealthy behaviours (Prochaska, 2013).

TTM was previously applied in studies regarding smoking, yet has since been expanded to be used for exploring a variety of health and mental health issues (Prochaska, 2013). The model has been used to predict participation to health behaviour treatment programmes (Prochaska, & Velicer, 1997). TTM has been criticised as over-simplistic due to human behaviour being multidimensional and not in discrete stages (Bandura, 1997). No evidence has been found to justify the time period of six months in different stages (Kraft, Sutton, & Reynolds, 1999). Bearing in mind the limitations discussed, this theoretical framework was considered appropriate for this research since the purpose was to explore the effect of MECC, a brief intervention model used to encourage healthy lifestyle change. TTM assisted me to evaluate the stage in which a patient was when interviewing them, that also often correlated with their answers.

Other theoretical models of behavioural change considered included the Theory of Planned Behaviour which was based upon the Theory of Reasoned Action (Ajzen, 1991). This theory suggests that a person's behaviour is determined by their intention to perform the behaviour, and their intention is based upon their attitude towards the behaviour being subjectively normal for them and their perceived level of behaviour control. It is however not considered to be effective in planning and designing interventions targeting behavioural change (Hardeman et al., 2002). The health belief model is another commonly used model of behavioural change with some variations, affirming that a person will make a health-related action based on their perceived susceptibility and perceived severity of the disease, perceived benefits of making the change, perceived barriers to the making the change, cues to action and their self-efficacy i.e. confidence in taking action (Glanz et al., 1997). Its predictive power for behaviour is weak (Harrison et al., 1992). Overarching consultation models used to frame consultations in primary care were also considered. In particular, the Stott and Davies

model focuses on opportunistic health promotion as one of its four areas of the consultation-management of presenting problems, modification of help-seeking behaviour, management of continuing problems and opportunistic health promotion (Stott, & Davies, 1979). Consultation models were unsuitable as a theoretical framework due to MECC being opportunistic and not reliant on there being consultations.

2.7 Primary Care Challenges

The role of primary care is integral in improving the physical health of people with mental health problems. *Bringing together physical and mental health: a new frontier for integrated care* states that '*Primary care is a crucial component of efforts to build a closer connection between mental and physical health* (Naylor et al., 2016, p. 46).' However, several challenges exist for primary care at present within the UK. With increasing workload and workforce pressures surveys have highlighted concerns within the profession. The Organisation for Economic Co-operation and Development (OECD) collected data for 33 countries and found the UK to be 22nd in terms of doctors per population with 2.8 doctors per 1000 people (Organisation for Economic Co-operation and Development, 2017). In comparison, the top ranking countries were Austria and Norway with 5.1 and 4.7 doctors per 1000 people respectively. The Health Foundation analysis of the Commonwealth Fund survey of 2015 of 12,049 primary care physicians across 11 countries found UK GPs to be more stressed than other international colleagues, with 59% stating the job is stressful or very stressful and 92% spending less than 15 minutes per patient in comparison with the international average of 27% (Martin, Davies, & Gershlick, 2016). In this survey 29% of GPs wanted to leave the profession within five years. A survey published in 2017, albeit restricted to GPs in South West England, found that 54% had low morale and 37% are highly likely to quit direct patient care within the next five years (Fletcher et al., 2017).

A second area to consider within primary care challenges is funding. A part of funding to general practice has been via the Quality and Outcomes Framework, incentivising specific markers of quality. This included physical health indicators of patients on the mental health register, such as cholesterol, blood glucose and body mass index (BMI). However, since 2014 these indicators are no longer incentivised and there has been a dramatic decline in monitoring, with figures in English practices for patients on the mental health register dropping from 81.2% in 2013-14 to 44.9% in 2015-16 in lipids, glucose from 86.3% to 59% and BMI from 88.9% to 57.4% (Horne, 2017).

2.8 Chapter Summary

This section reviewed the relevant policy content and literature regarding mental and physical health. A literature review of brief interventions for people with mental health problems in primary care found strong quantitative research including a meta-analysis of systematic reviews. However, there was a research gap in particular with patient and clinician perspectives on approaches to opportunistic brief interventions such as MECC. TTM was chosen as the candidate theoretical framework for understanding the research and challenges within primary care were also discussed, most significantly workforce and workload issues which may negatively influence the application and success of brief interventions. MECC appears to be an ideal approach to improve the physical health of people with mental health problems as it is resource-low, based on building a relationship of trust and casually introduces physical health as a topic of conversation as the opportunity arises. This research will add to the body of literature regarding patient and clinician perspectives on barriers and facilitators to the MECC approach. The following chapter will discuss the research methodology.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The purpose of this study was to explore the barriers and facilitators of the MECC approach for clinicians and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of patients with mental illness. Realist evaluation was chosen as the most appropriate form of enquiry in this context. This chapter outlines the research methods used as well as the ontological and epistemological paradigm within which it was located.

3.2 Epistemology and Ontology

The approach of realist evaluation was adopted based on its ontological and epistemological foundation. Crotty defined ontology as '*the study of being*' referring to current knowledge and what is understood, whilst epistemology refers to '*how we know what we know*' which is a deeper understanding that leads to the ontological position (Crotty, 1998, p. 11 & p. 8). Realist evaluation comes from the works of Pawson and Tilley (Pawson, & Tilley, 1997). Its position lies between positivism which believes there is a singular reality, and constructivism which believes there is no single reality or truth. Hence there is a need for the researcher to explore the perspectives of more than one type of stakeholder. It is significantly influenced by critical realists such as Bhaskar (1978) who identified objects as 'intransitive entities', meaning that they exist without knowledge about them. This contrasts with knowledge and understanding existing as part of the conceptual world and thereby 'transitive' social products generated by humans. The realist position is that there is a layered reality hence events operating are real, actual and empirical. Different perspectives lead to different partial knowledge. An example cited by Jagosh from Indian folklore is that of schoolchildren taken

blindfolded to an elephant (Jagosh, 2016). When asked what they are beside, the child by the trunk may say a brush, the child by the torso may say a wall, and the child by the leg may say a tree trunk. All have partial knowledge of a layered reality. Furthermore, different mechanisms will be triggered in different contexts leading to different outcomes. For example, in the context of pain a baby may cry, however in a different context the baby will still have the potentiality to cry but this will not be triggered. Hence there is ontological depth within realist evaluation. Realist evaluation is retroductionist, lying between inductive reasoning in which theory is derived through evidence and deductive reasoning in which theory is tested against evidence; it follows the principle that theory is inspired by evidence.

The ontological and epistemological position of realist evaluation resonate within myself as a person, researcher and clinician in general practice, which was one of the reasons for selecting this research design. I come across patients and clinicians with different perspectives and backgrounds, each who has a narrative which is true but not the complete story. This appreciation of a layered reality which is real, actual and empirical, is an understanding of knowledge that I have grown to believe. Furthermore, the understanding of different mechanisms being fired in different contexts to reach different outcomes is one I appreciate. By incorporating and working to understand the complexity behind which interventions work in specific contexts and the mechanisms that trigger them, in particular within the complexity of healthcare interventions, it can make research more transferable in appropriate contexts or allow for researchers to understand why research will not be transferable if this is the case.

3.3 Research Design

The design was based upon principles from realist evaluation. Realist evaluation is theory-driven and usually mixed methods research which is increasingly used in the assessment of complex evidence (Pawson, and Tilley, 1997). Its focus is on understanding the context and underlying mechanisms of events or practices, corresponding to working out what works, for whom, and under what circumstances. As a mechanism for understanding and evaluating complex interventions, it is increasingly used within healthcare research.

Realist evaluation identifies candidate programme or middle-range theory(ies) and evidence to form context-mechanism-outcome (CMO) configurations (Pawson, and Tilley, 1997). The context is the background and the mechanism can be broken down into the resources and reasoning that leads to the outcome or effect. This will then affect the further context. An example stated earlier is that of a baby. Within the context of a healthy baby (C), the mechanism of a vaccination (M(resources)) will give the baby pain (M(reasoning) and lead to an outcome of crying (O). Within the new context of a crying baby (C), the mechanism of breastmilk (M(resources)) will comfort the baby (M(reasoning) triggering an outcome of a soothed baby who is no longer crying (O). Whilst CMO configurations are traditionally C+M=O, the approach of Dalkin was preferred which separates and adds clarity to the constituents of the mechanism which are the resources and reasoning (Dalkin, 2015). The CMO configuration is below followed by figure 2 which gives a graphical representation of this.

M(Resources) + C→M(Reasoning) = O
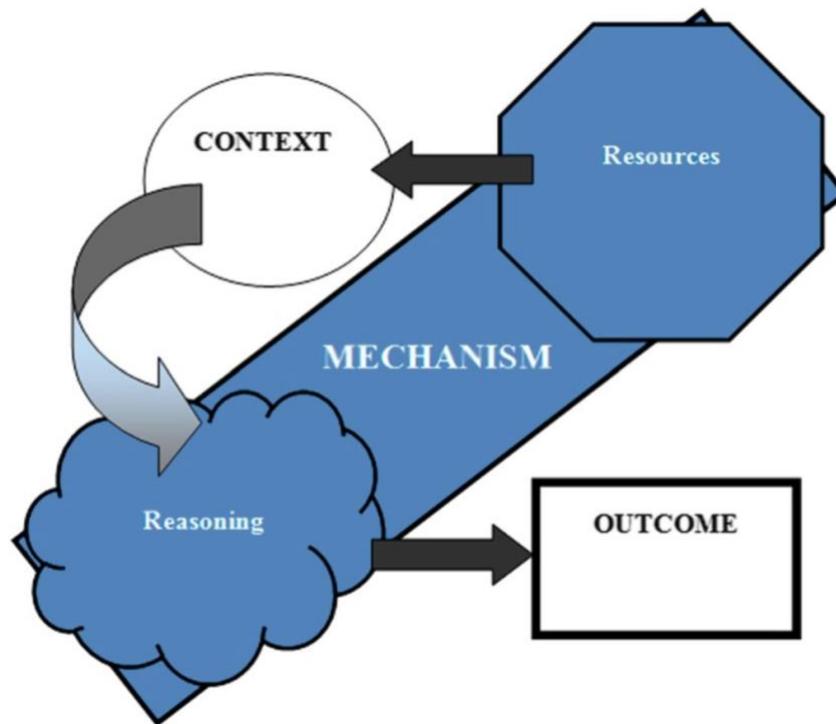
Figure 2 CMO constructs (Dalkin, 2015)

The overriding theory within this research was that clinicians in primary care can utilise more opportunities to make every contact count to improve the physical health of people with mental health problems. This would potentially be accepted by patients as well as being an effective means of creating behavioural change. The transtheoretical model was used as the candidate theory to be tested to explain patient and clinician perceptions of barriers and facilitators to behaviour change and to form CMO configurations.

Realist evaluation is method-neutral and the choice of data collection should be guided by the questions the research attempts to answer. Interviews were chosen as the primary means of data generation. Benney and Hughes described that '*sociology has become the science of the interview'* (Benney, and Hughes, 1956 p. 137) and Manzano described interviews as often the only tool available to collect data for programme effectiveness (Manzano, 2016). In this case, participants were recruited for semi-structured interviews to explore experiences,

perceptions, and acceptability of a brief intervention model such as MECC; furthermore, to enable qualitative investigation of their engagement with the intervention, providing additional insights into what the impacts of the intervention are, and factors which mediate these impacts. Ten patients and ten clinicians, including stakeholders from the CCG, were interviewed allowing for different perspectives to be understood from the recipients of the intervention i.e. the patients, the practitioners of the intervention i.e. the clinicians, and the commissioners of the intervention i.e. CCG stakeholders. Semi-structured interviews were considered most appropriate due to the exploratory nature of the study. The semi-structured format allowed for depth of exploration by asking in further detail about relevant points that interviewees raised. The interviews were not unstructured as they needed to test theory, as per realist interviews which test theory.

Other qualitative research studies may include a case (single or multiple case) study and focus groups. A case study design focuses on multiple data sources, reports, and observations which was not suited to the planned data collection procedures of this study (Yin, 2013). I would not have been able to observe the application of MECC within consultations, since appointments with a clinician are confidential and the ethical approval required would be much more challenging given the limited time for the research. Focus groups were not appropriate given the potential sensitivity of people with mental health problems in talking in groups as well as the practical challenge of gathering clinicians at a specific time. Furthermore, it would limit the number of questions and amount of theory-testing possible. Alternative methodologies were rejected from purely positivist and constructivist ontological positions, as it is the philosophical stance that should inform the methodology (Crotty, 1998). Positivist quantitative analysis would not be appropriate given the exploratory nature of finding out barriers and facilitators to MECC. Grounded theory

research design follows an inductive approach, generating theory through data analysis, which was not aligned with the purpose of the study (Glaser, & Strauss, 1967). Phenomenological research design uses inductive logic and interpretivist focused on the lived experiences of the participants and the data may be less generalizable (Smith, 1996).

3.4 Ethics

Recommended ethical principles for clinical research were followed and ethical approval was sought via the NHS HRA process followed by university ethical approval. Central to this, safeguards were in place to meet the requirements of Research Governance and the Data Protection Act including data transfer and storage (Data Protection Act, 1998). Any sensitive information was retained in locked filing cabinets in a locked office, held on password-protected computers and encrypted accordingly. Any identifiable information held about participants in this study is scheduled to be destroyed 6 months after final data collection. The aggregated anonymised data set will be used to inform teaching, and future research within the same theme. It will not be possible to identify any one individual from this or any reports/publications.

Confidentiality and consent were maintained throughout the project and participants were informed that they could withdraw at any point without detriment. Patients who had given their details to be interviewed were initially contacted via phone to ask if they were still interested to take part in the research. If they were interested, they were given a participant information sheet and a minimum of 24 hours 'cooling off' period to read and reflect upon taking part. An opportunity was offered to meet in person or discuss further via telephone and answer any questions. They were then offered the opportunity to sign written consent and

take part. I have substantial experience in seeking consent and was sensitive to the process throughout.

No serious hazards were anticipated and none occurred. The main possible adverse effect would have been an individual becoming upset in the context of an interview. Supportive measures were put in place in case of any problems and as far as possible taken steps to minimise risk. These included ensuring a known clinician was in the building during the interview who would be able to see the patient if they became unduly distressed needing clinical support. At the point of taking consent participants were informed of my role as a researcher, established duty of care points, and their voluntary contribution. Patients were also aware of my role as a doctor in the practice setting. Interviews with mental health service users took place at a room in the GP Practice with safety alarms. I am an experienced clinician with career experience of working in mental health and am sensitive to emergent signs of distress as well as being trained in the prevention and management of violence and aggression. This helped with ensuring sensitivity in interviews and facilitating the interviewees to feel comfortable. If there were any indications of distress or inappropriate disclosure the interview would have been stopped, although this did not occur.

From a reflexivity perspective, it is important to appreciate my background as the interviewer to understand the context within which the interviewees were responding as well as the lens to which analysis occurred. I was a research student who also worked as a trainee in general practice and has previously spent ten months working in psychiatry. Recruitment of clinicians to interview was easier than expected, with a number of clinicians contacting myself to be interviewed. This may have been due to the perception of supporting a colleague within their work. Clinicians were generally positive about being interviewed and enthusiastic when

talking to myself, possibly due to perceiving myself as 'one of them'. Some clinicians gave strong and at times controversial views, which may have been due to feeling able to converse openly with a colleague in a similar position to themselves. All patients interviewed were registered at the practice where I worked as a GP trainee. Whilst I had not been directly involved in their care they were aware of my GP trainee status. One can postulate this may have influenced patients to be less critical and possibly more guarded in their answers as they may not have wanted to criticise a health care system that they knew I was a part of. It was important for myself to understand the role I was undertaking with the patients. Since I was regularly seeing people with mental health problems as clinician I had to be aware of my own clinical mind and switch this off to allow my role as a researcher to be undertaken. This is something I prepared for by reminding myself before interviews that I was not undertaking a clinical role and would only break this rule if I felt that somebody was at risk of harm to themselves or others, in which case I would alert a colleague. Thankfully this did not occur. I kept a reflexivity diary to strengthen my own awareness of my role as a researcher and not clinician.

3.5 Sample and Recruitment

Patients were all recruited from a single general practice (GP) surgery in East Lancashire which had a practice population of approximately 9,000 patients. It is an area in which there is some social deprivation, as well as pockets of relative wealth and the patient population is primarily Caucasian. Prospective participants were invited via a poster which was placed in the surgery reception as well as online on the patient participation group Facebook page. GPs from the same surgery were informed of the research and the inclusion and exclusion criteria, and were requested to identify suitable patients and write to them asking if they would be interested to participate. This included a cover letter, poster and participant information sheet.

GPs were also encouraged to opportunistically ask suitable patients if they were interested in the research and to offer further information if so willing. The cover letter explained to the patient that the practice was participating in a research project with enclosed details. It clearly stated that no details about the patient had been passed to the research team and their decision to take part or not would not affect their care. If they replied interest to participate, their details were passed onto myself who then contacted them. This was discussed with the GP Surgery Caldecott Guardian who had also written a letter of support for ethical approval. They were also interviewed at the general practice.

The inclusion criteria for patients were adult men and women aged 18 to 65 who were currently under or had previously been under the care of psychiatric services. Choosing to include only those who were or had been under the care of psychiatry was intended to focus on participants with more severe mental health problems who were the targeted population, as opposed to those with milder mental health problems. Patients lacking capacity were excluded, as the research was not suitable for those unable to give consent. Patients whose capacity has not been recently assessed who had volunteered to be interviewed had their capacity presumed as present in accordance to General Medical Council (GMC) guidelines. If any concern regarding capacity were to arise, I was competent to assess capacity according to the GMC principles that the patient can understand, retain, weigh up, and communicate their decision to be involved in the research. For the purpose of the research I would have erred on the side of caution and not interviewed anyone with concerns of potential lack of capacity, although this was not the case with any patients interviewed. Being housebound was another exclusion criteria as a number of safety mechanisms were put in place for patients as well as myself at the practice which would not otherwise be feasible if the interviews were at patient homes. Hence, all interviews with patients took place at the

surgery. In total, ten patients were recruited and interviewed via this process of volunteer sampling (Jupp, 2006).

Clinicians within primary care, including stakeholders from the CCG, were recruited via a poster and participation information sheet which was emailed locally to clinicians as well as via CCG email cascades. The inclusion criteria were that they were GPs who were currently working. Interviews took place within their preferred place of work. In total, ten clinicians were recruited and interviewed via this process of volunteer sampling. Consent was treated in a sensitive manner and all participants were given the participant information sheet which was written in plain comprehensible language and included all salient information to allow for informed consent.

3.6 Data Collection

Ten patients and ten clinicians were interviewed via semi-structured interviews. Noting that the stakeholders from the CCG were also clinicians working in front line clinical care, these professionals were understood to comprise one group. The total of 20 interviews were decided upon in concordance with realist evaluation seeking out large amounts of data, focusing not on the number of interviews but whom, why and how they are interviewed. A pragmatic compromise between a large amount as well as manageable within the time constraints of a part-time MSc by research was considered to be 20.

Interviews were undertaken in accordance to principles from realist evaluation. In contrast to other social science interviews, realist interviews are theory driven in which the theory is to 'inspire/validate/falsify/modify' the hypotheses about how interventions work (Pawson, 1996). Hence the researcher tests the theory with the interviewees in what can be described as

a teacher-learner relationship (Pawson, 1996). Manzano further described how the interviews should evolve from initial theory gleaning to refinement and then consolidation (Manzano, 2016). Hence, a topic guide was written to test CMOs based on the literature which developed and evolved as the interviews progressed. The interview topic guide focused on the six research questions highlighted in thesis section 1.6. People with mental health problems were asked to describe their journey of care with reference to brief interventions to address physical health. Their views and clinician views were sought of any current services or gaps and perceived barriers and facilitators to delivering and acting on brief interventions within primary care. Aspirations for future service delivery, including referral mechanisms, components and approach to delivery were also sought. Interviewees were asked in lay terms about what contexts, mechanisms and outcomes they perceived were occurring, as well as the presence of features that could be identified as the transtheoretical model elements, such as precontemplation, contemplation and action stages. This could explain what was taking place. To allow for in-depth exploration of answers, the interview guide was therefore kept relatively open to support the semi-structured nature of interviews. The interview guide is included in appendix K. This information further informs from a patient and clinician perspective the best way of 'making every contact count' to improve the physical health of people with mental illness in primary care.

With participant consent, all interviews were audio recorded and transcribed verbatim and aggregated and anonymised using a data key. Transcription was undertaken via a service offered by UCLan of an administrative assistant transcribing at a cost which was covered by the funding body of the research. Interview lengths were commonly around 40 minutes with an anomalous patient interview last just eight minutes. As well as these, I wrote field notes during and shortly after interviews to further understand and develop the theory.

3.7 Data Analysis

Data analysis initially utilised thematic analysis according to principles set out by Bazeley (Bazeley, 2013). Each individual transcript was anonymised and patients were given pseudonyms reflective of their gender. Transcripts were initially read briefly in completeness to gain a broad understanding capturing the essence of the interview, and then reread in further detail. The data were then coded, with words or short phrases that formed salient data being coded, which labelled, summarised and linked discrete portions of data. I initially tried NVIVO to support the process of coding but found it more conducive to use a manual approach and instead used Microsoft Excel for organising the coding. This allowed for ease of initial delineation of codes and indexing facilitating pattern searching and retrieval. The codes were then grouped into categories, linking together 'families' of different codes which shared some characteristics. These categories were later organised into themes, more higher-level and abstract concepts which were drawn out after analytical reflection. Investigator triangulation occurred whereby my academic supervisors reviewed the raw data and we discussed codes, categories and themes in regular meetings. Data analysis was a noticeably challenging process given significant interrelation between themes, categories and codes. Identified themes were expressed in terms of the contexts, mechanisms and outcomes important for sustaining action and implementation and presented as a thematic network relating the findings back to realist theory. Evidence from the thematic analysis was used to form context-mechanism-outcome (CMO) configurations. Put simply, the context is the background and the mechanism is the resources and reasoning that leads to the outcome or effect which then affects the further context.

3.8 Methodological Challenge

No methodology is without challenge. The selection of patients and clinicians who were interviewed may be considered self-selected to an extent. This is due to volunteer sampling taking place which was most feasible given the study size and timescales. Patients interviewed were all from the same GP surgery, undergoing the same type of mental health reviews by the same clinicians. This was due to the limited length of the project with limited resources. Hence, the generalisability of the results is limited, which will be discussed further in section 3.9.

Patients who volunteered to be interviewed can be considered to be those who are more likely to be interested to work with medical professionals and more involved in their health. They were also interviewed during general working hours so those in full-time work may have found it more difficult to attend. Therefore, they may not be fully representative of the population of mental health patients, as those who are not interested in brief interventions and lifestyle changes may be the patients who are less keen to engage within the medical team and may be those did not volunteer themselves for the interviews.

The selection of clinicians for interviews again faced similar concerns of bias. The clinicians being from the same locality under the same CCG meant that their experiences of services and provisions, as well as patient populations, were not fully transferable throughout the UK. Furthermore, those who volunteered for the interviews may be those clinicians who were more passionate about health promotion, and similarly those clinicians who are not interested in health promotion are likely to have been missed from the interviews.

Finally, realist evaluation ideally should be mixed methods, with both qualitative as well as quantitative data which can be compared, in particular using quantitative data as an outcome measure. However, due to limitations of time, no formal quantitative data was gathered. This would be a useful area to explore in the future. However, the qualitative data is sufficiently rich as an initial focus.

3.9 Research Quality

Research quality pertains to rigour in carrying out the work, and in quantitative research is often discussed in terms of validity and reliability. In general terms, reliability refers to the question of if the study was replicated, would the same results occur, and validity refers to how well an instrument measures the phenomenon of interest. Generalisability is the degree to which the research can be generalised to other groups. These concepts do not readily translate to qualitative studies. Lincoln and Guba (1985) described alternative terms for qualitative research quality in terms of trustworthiness, credibility, dependability, confirmability and transferability. These concepts were used to ensure research quality within the study. Trustworthiness describes the overall quality of qualitative research which is considered to be built upon the other aspects of credibility, dependability, confirmability and transferability. These can be considered the key to quality qualitative research and will be described below.

Credibility is the confidence in the 'truth' of the findings. Credibility was maintained by regular monthly supervisory meetings to discuss and review the findings. All themes, categories and codes were clearly embedded from quotes and evidenced accordingly. Patton described how triangulation adds credibility by strengthening confidence in conclusions via utilising a variety of data sources (Patton, 2002). Methodological triangulation took place in

terms of thematic analysis as well as CMO configurations via realist evaluation. Investigator triangulation occurred with the academic supervisors reviewing the raw data and analysis of codes, categories and themes. This was discussed at monthly meetings as well as via email.

Dependability is to ensure that the findings are consistent and could be repeated. This was maintained by meticulous detailing and auditing of all phases of the research and ensuring due processes were followed.

Confirmability refers to the degree of neutrality of the research. Bryman states that '*it should be apparent that the researcher has not overtly allowed personal values or theoretical inclinations to manifestly sway the conduct of the research and the finding derived from it* (Bryman, 2004 p.403).' This leads to consideration of matters of reflexivity between the personhood of the researcher and the subject matter. On the one hand, reflexivity relates to a notion of '*empathic neutrality',* striving to avoid or at least be aware of and reflect upon personal, systemic or other bias and consider this within the research (Ritchie et al., 2013). On the other hand, a reflexive relationship to the subject matter can be an intrinsically valued aspect of the research process, capitalising upon personal or professional experience to enhance interpretative insights. For the purpose of attending to such concerns, a reflexive diary was kept throughout the study, including initial thoughts prior to interviewing as well as reflections after interviews. An inherent potential for personal bias was noted as I had a clinical background working as a trainee GP. I spent ten months working within mental health wards and hence developed a clinical perspective on certain issues. My reading and clinical experience has led to views about clinicians not taking enough opportunities to deliver brief interventions with mental health patients and a lack of training or emphasis for clinicians on lifestyle interventions. This inherent bias was something I was aware of and

made efforts not to blur or bias the research findings with my personal views and values. Member checking occurred as data was returned to participants for accuracy and resonance with their experiences to further support confirmability.

Transferability is the extent to which the findings are applicable in other contexts, and is similar to generalisability which is used for quantitative research. The semi-structured interviews allowed for in-depth elaboration of interviewee comments enabling exploration of features of the candidate theory. As a result, sufficient data was captured to draw potentially transferable theoretical conclusions. However as described in section 3.8, a methodological challenge was of interviewing people with mental health problems from a single GP surgery in one locality. Hence, the generalisability of the results is limited and would be further strengthened by larger and longer term projects involving patients from different practices and localities. Furthermore, the clinicians and stakeholders were also from one geographic area. However, by analysing the contexts, mechanisms and outcomes and features that supported the theoretical propositions, the research is argued to offer transferable theoretical arguments about the operation of MECC. The nature of volunteer sampling of both people with mental health problems as well as clinicians and stakeholders from the CCG raises the question if they were representative of their wider populations. Potentially those more passionate about brief interventions could have volunteered for interviews with those less interested in brief interventions being less interested in being interviewed.

Patient participation was an integral aspect of supporting the quality of the research and was based around the INVOLVE method of collaboration. The patient participation group was involved in the initial study design as well as reviewing information for participants and appraising initial topic guides. The research was presented to the group in a meeting and they

contributed to the development of the patient information sheets and consent forms. This ensured appropriateness and relevance of information and outcomes that patients value. This collaboration improved the quality and depth of the research.

3.10 Chapter Summary

The design was an explorative study based upon principles of realist evaluation. Participants were recruited for interviews to explore experiences, perceptions, and acceptability of a brief intervention model such as MECC and to enable qualitative investigation of their engagement with the intervention, providing additional insights into what the impacts of the intervention are, and factors which mediate these impacts. This chapter described the theoretical positioning and perspective of the research as well as the methods used, and steps taken to ensure ethical compliance with issues such as confidentiality and capacity. The findings from the data analysis will be presented in the next chapter.

CHAPTER 4: FINDINGS

4.1 Introduction

This chapter outlines the key themes that emerged through both sets of interviews as well as some of the differences identified between the participant groups. Data will be presented using excerpts from transcribed interviews and participant names have been changed to protect anonymity. Clinicians were given pseudonyms with 'Dr' to differentiate from service users in reported findings. This presentational choice risks the reification of a dichotomy in power in the findings as one group is untitled and one group is titled. However, this is actually reflective of the reality of consultations within primary care and the power dichotomy such that often the patient is sat on a lower hard seat and the clinician on a higher and more comfortable seat. The findings will be explained through the transtheoretical model as the candidate theory that was tested. Finally, CMOs will be drawn out to illustrate the outcomes that become apparent when particular mechanisms are operating in certain (conducive) contexts. The CMO configurations are used as a means of explaining what works in which circumstances and for whom. The use of both thematic analysis and construction of CMO configurations adds a layer of methodological triangulation to increase trustworthiness, as stated in 3.9.

4.2 Demographics

The findings relate to the 20 interviews, ten from patients and ten from clinicians. Of the ten patients, three were male and seven were female. All were on medication, of which eight were prescribed antipsychotics and two antidepressants only. Diagnoses ranged from severe depression, paranoid schizophrenia, bipolar affective disorder, schizoaffective disorder to personality disorder. The youngest patient interviewed was in their 30s and the oldest in their

60s with the majority of interviewees aged 60-65. Of the ten clinicians interviewed, seven were male and three were female. Nine were GP partners and one a GP locum. All bar one were involved in extra clinical activities, such as having roles within the clinical commissioning group, involvement in primary care medical education, undergraduate medical education and out of hours work. One participant was a GP with a special interest in a speciality other than mental health. Their ages ranged from 20s to 50s with the majority of clinicians interviewed in their 50s.

The interviews were coded into 356 nodes via Microsoft Excel which were used to form categories and then themes. An example of coding is included in appendix L. Key themes that emerged from the interviews were patient factors, clinician communication and systemic factors, illustrated below in figure 3 with their categories. The themes will now be presented in further detail.

Patient Factors
- Demand
- Vulnerability
- Heterogeneity
- Determination
- Mental health

Communication
- Tailored delivery
- Rapport
- Enthusiasm
- Level of intervention
- Holistic care
- Training

Systemic Factors
- Annual review
- Continuity of care
- Time and workload
- Primary care team
- Software support
- Other services
- Social environment
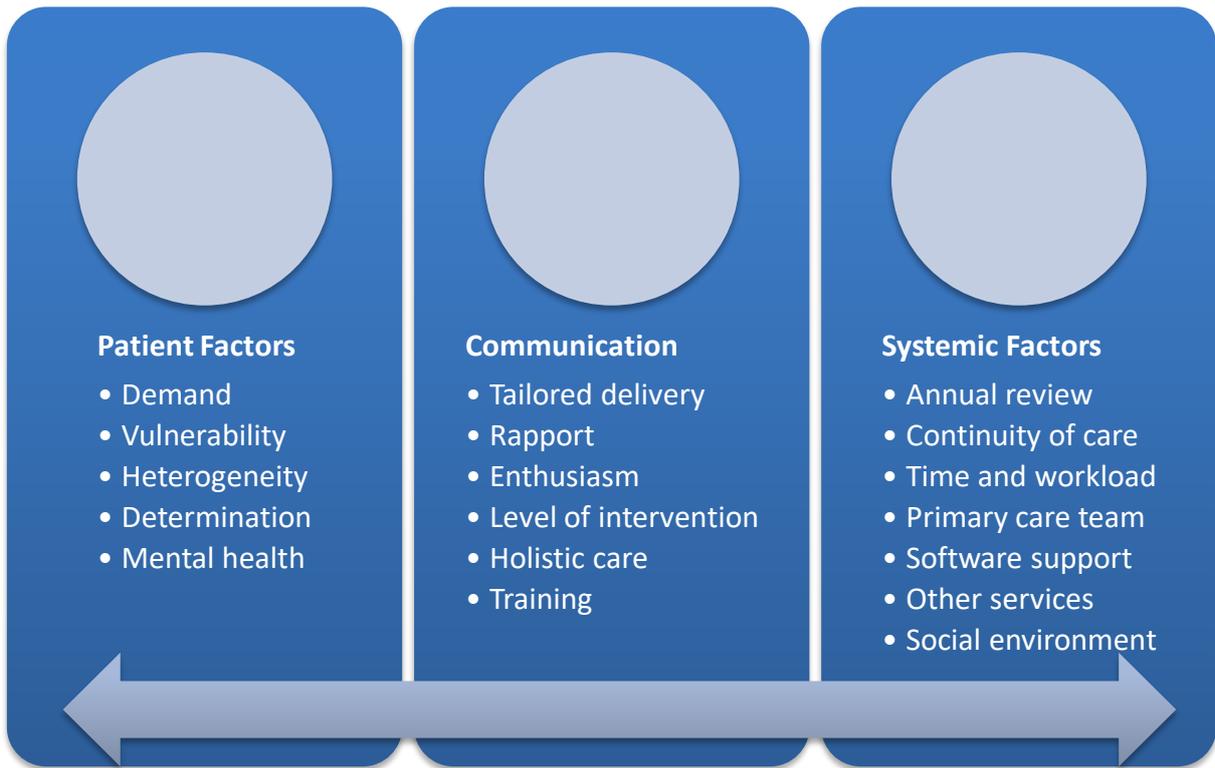
Figure 3 Themes

4.3 Patient Factors

There were many interconnected factors affecting people with mental health problems that were discussed that would affect the implementation and effectiveness of making every contact count. Main categories within this theme included the increased demand for brief interventions, due to the increased vulnerability of patients. Interviewees with mental health problems were heterogeneous groups that were more vulnerable and potentially needed to be targeted. However, patient determination in making lifestyle changes was raised as paramount. Making a lifestyle change could have an effect on their mental health, and conversely the state of their mental health potentially determined their ability to make a lifestyle change. These mainly involved contexts from CMO configurations.

4.3.1 Demand for brief interventions. Patients expressed clearly that they wanted brief interventions and that they found them a valuable part of their primary care experience. An example of this was wanting brief interventions '*brought up all the time, yes, because it's good, because it's helping the person* (Thomas).' The demand for brief interventions was felt regardless of the stage of TTM the patient was in. In fact, even when patients did not feel in a position to make changes, in the precontemplative stage, they still felt that the advice should be offered. For example, regarding smoking cessation, '*You're doing a positive thing by mentioning it. Whether the patient wants to take it up, it's down to them really but yeah, I think it's good* (Teresa).*' A reason or the demand for brief interventions was often that patients were partaking in unhealthy lifestyles and wanted to make a change, and they were waiting for a primary care clinician to raise the intervention and offer a practical way of changing their lifestyle. This is the context in which the mechanism of brief interventions may be delivered, with patients potentially willing to move up their stage of the TTM.

However, a minority of patients did not feel they needed brief interventions. When Anna was asked if she thought it was negative that she had not been offered any advice to her unhealthy lifestyle behaviours, she *stated 'I think the thing is I haven't asked for a solution… it's the patient's responsibility for me to ask you* (Anna).*' This implies that the onus is on patients to raise their unhealthy lifestyles and ask for advice rather than being brought up opportunistically by clinicians. In this case the patient perception was to address solely the problem that they presented with; however from the clinical perspective there was a

described need to manage the patient holistically and ensure lifestyle interventions were also addressed.

4.3.2 Vulnerability. Vulnerability here refers to the increased susceptibility to health problems as well as reduced coping mechanisms or ability to make lifestyle changes without support. This is another factor affecting the context of the delivery of brief interventions. Vulnerability made seemingly simple habitual acts become challenging, as Sarah explained that '*it is a big thing for me to have a shower every day, brush my teeth every day* (Sarah).*'* If such acts require significant motivation and determination, it can only be assumed that achievements such as stopping smoking and other lifestyle changes would be more challenging. Dr Smith highlighted that '*it's the motivation in everyone that is the problem in stopping smoking, but it may be more of an issue when you are already battling with mental health problems* (Dr Smith).*'* The increased challenge may be because when a person is '*battling mental health problems'* not only may they have extra social and other challenges as Dr Khan highlighted, but also the nature of mental illness and its effect on cognitive thinking processes as well as the medication which may also disturb cognitive processes. Dr Williams stated that *'if you have got hypomania or depression your memory is not so good you are not functioning so good, mentally your higher cerebral functions are not as good* (Dr Williams).' For example, when asked a question during conversation, Thomas often asked for phrases to be repeated after appearing to lose concentration. The interview with Fiona was extremely brief due to a non-engagement with the interview process and inclination to answering questions with a *yes, no* or *I don't know.* Whilst non-engagement may be due to a number of reasons such as lack of interest or having other commitments to go to, I perceived her body language to be that of someone struggling to concentrate on the questions due to impaired

cognition. This context makes it more challenging for brief interventions to cause the outcome of moving up the stage of the TTM.

Clinicians noted higher levels of non-engagement stating that achieving patient attendance at annual reviews was challenging and they were more likely to miss appointments. Non-engagement increases vulnerability by reducing access to healthcare. A reason for this was suggested that *'their psychological mental needs don't put their physical health anywhere near the top* (Dr Williams).' Hence patients may not value their physical health as much due to the priority of their mental health. Dr Williams felt that the reason for this may come from clinicians themselves who focus on mental health and ignore these patients' physical health problems. This highlights an effect from clinicians and potentially also wider society of not having an interest in this cohort's physical health which may cause patients to devalue their own physical health.

The demand for brief interventions was felt by clinicians to be stronger in this patient group due to increased vulnerability. Dr Ahmed described how '*mental health patients as a cohort are more vulnerable and a lot of them, there is a reliance on the GP to guide them* (Dr Ahmed).' This highlighted an increased responsibility of clinicians to be proactive when managing this cohort's health. Dr Mahmoud explained the reasoning for this, that '*patients with mental health problems, they don't necessarily have that lateral thinking in their mind set at that time because they are preoccupied with their thoughts, as an inclination I suppose we could be more proactive and opportunistic in terms of helping with just general lifestyle changes* (Dr Mahmoud).*'

Vulnerability is increased for people with mental health problems as they are more likely to

adopt unhealthy lifestyle behaviours, because '*clearly smoking and alcohol problems are far more common in that group (Dr Hughes).*' Hence the risk of lifestyle factors on their health, as well as the benefit of changing lifestyle, is greater. Due to this it can be argued that interventions should be focused towards '*people who need it the most,*' because '*if someone is dying 15 years younger you have got a lot more to play with than somebody who's already maximizing their life expectancy, you are only going to get another half a year (Dr Hughes).*'

Dr Khan further described a number of causes of the vulnerability that may lead to the poorer morbidity and mortality.

> '*They're feeling down, they're feeling lonely, they're isolated. They're probably jobless. Finance is a big problem. They're feel rejection from society, from family. So they've got a multitude of factors, dilemmas that they're having to grasp and deal with (Dr Khan).*'

He further stated a solution than '*you have to be quite wise and give them the time, and be able to carry on with the journey, as you bringing other priorities, so you have to be a lot more patient with this population, and not dismiss them (Dr Khan).*'

Access is another area that makes people with mental health problems more vulnerable as '*they may have no transport... They may not drive, have to get the bus and all that maybe scared of going out (Dr Smith).*' Access may be a greater challenge due to the patient's mental health, as '*All these facilities are available but I'm a little bit sometimes scared to use them with an issue with trust, so it is only me that is putting the barriers up (Marie).*' However, adaptions can be made to overcome access issues, as Kate explained '*I had a major breakdown in 2012 and I do know there is red marker against my name so that if I were to*

contact the surgery requesting any mental health assistance I should be seen on the same day (Kate).'

4.3.3 Heterogeneity. Whilst all people with mental health problems may be considered to be vulnerable, Sarah suggested when interviewed that this heterogeneous group can be further disaggregated to focus on those most vulnerable. This translates as different contexts of patients, of which the more vulnerable may be more challenging for the mechanism of brief interventions to move them along the TTM. There are certain groups that are particularly vulnerable, such as '*young men who often have a combination of mental health problems and substance misuse… older women who perhaps have more in terms of weight issues, possibly also smoking and alcohol, and they may be, particularly if they've had a long history of mental illness, have maybe become resigned to a poor physical health as well* (Dr Long).' Dr Jones felt that poor physical health and co-morbidities were the most challenging factor in changing lifestyle.

As well as health problems, Dr Ahmed also described social problems as a factor making it more challenging for this group. Within social factors, a lack of employment was highlighted as a particular barrier as '*people who are not in work I find are often more resigned to both poor physical and mental health and therefore don't really see that they could achieve very much* (Dr Long).' This also leads to financial hardship which was considered by Dr Ahmed as another barrier. Support systems from family and friends as well as work were felt to be a protective factor to mood as well as lifestyle as '*a lot of people with chronic mental health problems who don't have the social support or the insight, become very socially isolated and do smoke heavily and do drink heavily* (Kate).' However, family support was not always felt to be useful in helping patients make lifestyle interventions, as Thomas stated '*Well, I think*

family are certainly not trained and don't know how to deal with it and they just turn a blind

eye (Thomas).*'*

Level of education was also explored. Patients did not think this was important, contrary to clinicians. Dr Stevens felt that education and support were facilitators to brief intervention stating, '*the well-educated with family support are more likely to be receptive* (Dr Stevens).*'*

Dr Mahmoud further elaborated on education as a facilitator.

> *'Obviously the more educated may have more resources and they may have more knowledge about the risk and benefits of continuous smoking or alcohol or being overweight, having high blood pressure and everything about having a bad diet they often have more access, more knowledge of them things* (Dr Mahmoud).*'*

4.3.4 Determination. Determination came through as an integral aspect to making any type of lifestyle change. Without clear knowledge of the benefit of making the lifestyle change or until being afflicted with a related illness, there was inertia of patients to making lifestyle changes. For example, William stated that '*most people know the harm of it (smoking) anyway so, I just think it's up to the individual to either pack up or not pack up, I just think it's up to the individual, it's pointless dictating to people* (William).' He further described not giving up smoking '*until it was life threatening* (William).' This implied that until patients were at the contemplation or preparation stage of the TTM, action would not be achieved from brief interventions.

Anna felt that this could only work in a '*partnership approach*' of joint responsibility and understanding between the patient and clinician. Clinicians understood patient determination

very well. Dr Smith stated, '*you cannot do an intervention until someone is ready to do it*' and explained '*we discuss things people will take it or leave it and they are welcome to do that* (Dr Smith).' Hence in the context of patients who are not ready to make a change, the mechanism of brief interventions are unlikely lifestyle changes and the focus should be on moving them from precontemplation to contemplation.

4.3.5 Mental health. The mental health effects of unhealthy lifestyle behaviours and lifestyle change were explored, an outcome, as well as how the patient mental health would affect the delivery of the brief intervention, a context. When patients' mental health was stable, clinicians felt more able to take opportunities to deliver brief interventions. Dr Ahmed gave an example of seeing a stable patient for a medication review and utilising that opportunity to discuss smoking. A number of clinicians also felt that outside of a crisis the consultation and approach to delivering brief interventions is the same as in any other cohort of patients. Dr Smith explained '*in fact they have just got a mental health issue just like someone a lung problem and they are just getting on with it and managing it fine, so they should be treated exactly the same as all other patients* (Dr Smith).' By having healthier lifestyles patients felt that their mental health improved. Sarah explained a sense of self-value from making a small change lead to an increased sense of wellbeing.

The mental health benefits of lifestyle change were also appreciated by clinicians. Dr Stevens stated that '*diet and exercise is the best intervention*' explaining '*I've certainly seen mental health can be improved greatly by exercise* (Dr Stevens).' Dr Jones further agreed that changing detrimental lifestyle factors to healthier ones empowers patients making them more able to deal with life stressors. Dr Jones went further explaining that even if a patient presented in crisis, it might be appropriate to review lifestyle factors which could benefit their

mental health.   However, some clinicians were less positive with regards to the mental health benefits of unhealthy lifestyle factors, perceiving that the unhealthy lifestyle could be benefiting or at least sustaining the mental health, causing a tension in priorities of physical and mental health. Dr Hughes described hesitancy in delivering a brief intervention as '*it is a hard challenge to ask about smoking where you think that perhaps their mental health will become more deteriorated if they didn't smoke* (Dr Hughes).' Some patients similarly felt that unhealthy lifestyle behaviours may actually be beneficial to their overall wellbeing during periods of mental illness as a coping strategy. Due to the comfort of the unhealthy lifestyle factor, even if only short-lived, it may cause a resistance to change. Thomas stated unhealthy lifestyle choices '*can make your depression but it's like being in heaven for a short time* (Thomas).' Hence, whilst negative impact long-term on mental health is known, this short-term benefit may be enough to cause resistance to change and stop the patient moving along the TTM. Furthermore, when one's mental health and state of wellbeing is worse it makes patients less able to carry out lifestyle changes and more likely to engage in poor lifestyle choices.

Clinicians were less willing to deliver brief interventions when a patient's mood was unstable. Dr Smith gave the example that '*I do have one particular lady alcoholic causing her a lot of mental health issues but the only time you could address her alcohol intake was when she was not in crisis and that was quite useful, but you cannot do it at a crisis time* (Dr Smith).' This may be because in a crisis a patient '*has lost the ability to retain information* (Dr Avons).' If one were to bring up lifestyle intervention in this stage it could give the impression that '*I am not listening* (Dr Hughes).' If a clinician raises lifestyle interventions during a period of crisis, then not only will the patient not address the crisis, but it may cause deterioration in their mental health. Sarah gave a clear answer when asked about raising

lifestyle interventions during a period of crisis:

'I think at the time no, I wouldn't have listened, it wouldn't have gone in and I would have probably taken it as another insult and that I wasn't worth anything, and that's what goes around in your mind in them first instances of wanting to commit suicide, you're not worth anything and for a doctor to then go well, you know, have you had a look at your weight, and you're just thinking oh thank you very much (Sarah).'

If however the crisis is directly related to the unhealthy lifestyle intervention then patients appreciated the need for it to be brought up. When asked if interventions could be raised during crisis periods Kate replied, '*Depends on the crisis alcohol can cause many crises, yes it would be appropriate at that point in time with somebody who misuses alcohol* (Kate).' And whilst it is understandable in periods of crisis not to bring up brief interventions, in periods of low mood it may be beneficial via giving small achievable targets which can boost self-confidence and morale. This approach of '*building yourself up'* was agreed with by Dr Khan who described even when a person has other health priorities, dealing with something like smoking can lead to a '*quick win'* that may build confidence and coping ability (Dr Khan). By the patient changing a lifestyle factor moving along the stages of the TTM, it may give more confidence they can do the same with other lifestyle factors. Understandably one may aim for a lifestyle intervention which is easier to change and not to overburden the patient with multiple interventions.

4.3.6 Summary. The findings from the patient factors were presented, which were categorised into demand, vulnerability, heterogeneity, determination and mental health. The theme of clinical communication will now be presented.

4.4 Clinician Communication

Clinician communication is a core concept in effectiveness of any brief intervention or any fruitful clinician-patient relationship. If the clinician does not have good communications skills and causes a negative experience for a patient '*they're not going to want to come to the doctors for anything* (Kate).' A number of interconnected categories emerged from the interviews including tailoring the delivery of the brief intervention, rapport and clinician enthusiasm which affected the level of intervention offered and providing holistic care. Some training needs were also highlighted. These mainly involved mechanisms from CMO configurations.

4.4.1 Tailored delivery. Overall, clinicians were felt to be effective communicators. For example, when asked if doctors are good at explaining William replied, '*Most doctors are, yes* (William).' A main area of effectively communicating brief interventions to facilitate lifestyle change was felt to be highlighting the benefit of changing one's lifestyle and the harms of not doing so. This involves a clinician having the knowledge of the unhealthy lifestyle and being able to transmit this knowledge in a clear manner. Kate summed up clearly and succinctly '*I think for the clinician it would get across a very powerful message if they could point out the health risks of continuing with these lifestyles* (Kate).' Her main message for the interviewer was again regarding delivering knowledge, stating '*It is about education, educating patients, more information, written information and advice* (Kate).' Dr Khan felt that this is effective when discussing the long-term consequences of smoking.

Dr Stevens explained how he practically did this in a case of a patient with depression and a high alcohol intake, '*So rather than me telling what he needed to do, we talked about the link between the alcohol and the depression* (Dr Stevens).' Dr Avons further elaborated '*it's*

about listening to what the various problems are and seeing if there's a link between them and then trying to allow the patient to understand the link (Dr Avons).*'* When delivering the intervention, it is necessary to '*tailor-make'* the intervention according to the patient's understanding and interests (Dr Jones).

This personalised approach should not be restricted to only the physical health benefits. One patient mentioned the harms of alcohol on their mood, another the financial benefit of quitting smoking which was pertinent as they had money worries and switched to electronic cigarettes due to this. Hence, part of *tailoring* the intervention includes understanding the patient's negative habit within the sphere of their life and providing healthy alternatives or something to change to rather than purely something to stop. This includes education patients that *'there's other ways of relaxing* (Dr Smith).*'* To be able to personalise the brief intervention a layer of theoretical scaffolding was necessary to which the intervention could be placed. Dr Ahmed described mapping where the patient was in the TTM and encouraging them to move forwards from whichever stage they were at. If this mechanism of a tailored delivery was not done, the brief intervention was thought to be ineffective and also potentially harmful due to damaging rapport.

4.4.2 Rapport. Rapport was highlighted by both patients and clinicians as a key facilitator and mechanism enabling the success of brief interventions moving patients across the TTM. Dr Khan described rapport *'is half the battle or probably more to be honest (Dr Khan).'* Without rapport it was felt that patients may withhold their negative health behaviours, or the extent of them, and be less willing to act upon brief interventions. They would also possibly stop seeing the clinician, such as Thomas's experience of not seeing a specific doctor due to being upset by him in the past. A key factor within the development of rapport was mutual

trust between the clinician and the patient. Marie stated if '*you can trust someone you can open up so much more*' and described a doctor-patient relationship without trust as a barrier to acting upon brief interventions (Marie). Dr Long felt that for open and honest dialogue to take place this trust was essential. Dr Mahmoud explained that without rapport, a fear of stigmatisation and being judged may prevent an effective communication encounter.

Rapport can be developed via good listening skills such as '*good eye contact, active listening, actually listening to their problems especially with say a patient with mental health they have a lot of verbal and none verbal cues you need to pick up on them, make them know you are interested in them... Your body language has to be right, so whilst you might be polite to somebody, but your body language might be negative, the patient will see those signals* (Dr Khan).' Kate similarly described listening skills as important, in particular good eye contact and not being interrupted made her feel that she was being listened to. Sarah felt that as well listening skills, to develop rapport with people with mental health problems it is essential for the clinician to have systematic and refined history-taking skills. She felt this was more challenging with people with mental health problems as they may not think clearly or use their judgement as they normally would when they are experiencing an episode of illness and hence the history may not be delivered in a logical manner. Sarah highlighted the personal touch of the clinician remembering the patient as important to developing rapport.

There was a concern from clinicians that rapport could be damaged by discussing brief interventions, as '*some people could take offence that you're asking them to stop drinking, stop smoking* (Dr Jones).' A dictatorial attitude from the clinician was particularly concerning for patients. William stated, '*the more you dictate to them the more they get stubborn and not do it* (William).' This concept seemed well understood as Teresa stated that she had never

come across a clinician who had been forceful and clinicians describing not wanting to be forceful. This fear of brief interventions damaging rapport appeared to be more of a potential rather than actual experience, as Teresa stated, '*I've not known it to go down badly* (Teresa)*'* and Dr Stevens explained that bringing up lifestyle interventions had '*never caused a consultation to deteriorate* (Dr Stevens)*.'*

Dr Avons described the clinician's role as simply being an agent of change. Even when apparently unrelated to the consultation, with adept communication skills clinicians should not feel wary of bringing up brief interventions and moving the patient along the TTM. Sarah felt a communication tool to raise brief interventions in a non-judgemental attitude and maintain rapport was utilising open questions. Dr Avons described similar in a slightly more nuanced manner such as '*Have you thought about how that would affect your health, whether that be emotional or mental health?* (Dr Avons)' He further described a practical example relating to a patient he knew was drinking alcohol excessively.

> '*So rather than myself telling that he was drinking I got him to tell me he was drinking, and then I used kind of the Socratic questioning around, "Well what do you think it's – the drinking, is that causing problems for you?" And he was able to say, "Well yeah, it is a problem and I've been thinking about doing something about it." And I said, "Do you need some help with that, or is that something you can do yourself?"... So rather than me telling what he needed to do, we talked about the link between the alcohol and the depression* (Dr Avons)*.'*

Clinician attitude has a strong effect on rapport, as Marie explained it would '*definitely'* affect the likeliness of her acting upon brief interventions. A positive attitude can lead to patients perceiving that the clinician is *'nice'* and that they care about the patient. Simply by

giving this impression it can be enough for patients to want to make lifestyle changes. Sarah stated her reason for making a lifestyle intervention was that '*you know try and cut down like (Name) says. Because (Name) is nice and very kind* (Sarah).' Dr Khan described how this attitude comes from '*being genuine in what you're doing* (Dr Khan).'

4.4.3 Clinician enthusiasm. Clinician enthusiasm to deliver brief interventions was a recurrent mechanism for moving patients along the TTM. There was a significant variety in clinicians' sense of importance of delivering brief interventions. A number of clinicians and patients felt the primary care was the best place to advise on lifestyles. Thomas argued that whilst psychiatric services focus on psychiatric problems, primary care should focus on the holistic care of these patients including lifestyle interventions '*because I've got a psychiatrist I've been seeing, (only asking) how are you today, how are you feeling? How's the, are you still low mood?* (Thomas)' Dr Khan explained this from a clinical perspective stating, '*the mental health professionals will tend to generally only tend to deal with their mental health issues the GP has got to be the one who takes the holistic approach and deals with everything that is going on* (Dr Khan).' Dr Hughes said that the '*primary care team are best placed*' to deliver brief interventions (Dr Hughes). He further added the relationship between primary care clinicians and patients is what makes this the case. Dr Stevens was very enthusiastic about discussing diet and exercise stating, '*the single best intervention for anything is diet and exercise* (Dr Stevens).' Similarly, Dr Smith regarded it as very much an integral part of a clinician's role. Dr Khan found encouragement a powerful tool when delivering interventions. He would often tell patients '*ninety percent of our patients who go to (Name) quit (smoking) after three months, she's that good, so you have to kind of emphasise on that, because it gives them hope* (Dr Khan).' Patients felt clinician enthusiasm was essential, for example Teresa below.

> *'Oh, you do need a lot of encouragement, especially when I was losing weight. It was nice to come in and actually see you're actually losing weight when you got weighed and that (Name) was always praising me and (saying) I was doing well (Teresa).'*

This enthusiasm was not perceived to be present amongst all clinicians, as Dr Ahmed highlighted this discrepancy between a clinician enthusiastic about lifestyle interventions and one who focuses purely on the medical model of health. Dr Khan described how '*the reality is that we are quite poor at brief intervention… quite often it might just be a flying remark that doesn't get anywhere* (Dr Khan). Sarah stated '*no-one ever pin-pointed the fact that I was overweight. You know, I was, I was very overweight, I was 14, nearly 14 stone and a size 22 (Sarah).*' Kate described '*I would have just liked a little bit more advice and support than I felt that I got. It was just you are pre-obese you are not actually obese* (Kate).' Clinicians less enthusiastic about brief interventions may only bring up lifestyle interventions when directly related to the consultation, as Dr Smith described his approach. Dr Jones stated when taking a structured medical history, '*if anybody comes in and they're talking about low in mood or depression as part of that assessment I'd ask them about alcohol, smoking, lifestyle, support, hobbies – it all tends to come up with that* (Dr Jones).' Dr Long explained that diet and exercise are less emphasised in the medical history and appeared to be more challenging for clinicians to discuss. Clinicians also described due to the emotional strain of mental health consultations upon them, it made it more challenging to deliver brief interventions.

Clinician experience and level of enthusiasm to deliver brief interventions may be related. Dr Williams suggested that newly qualified clinicians are better at delivering brief interventions

due to changes in training. He further suggested that clinicians who have been working for decades may become cynical and less active in delivering brief interventions.

4.4.4 Level of intervention. Depending on the clinician, their enthusiasm and rapport with the patient, there were different levels of intervention delivered. These different levels of mechanisms produce different outcomes depending where the patient is in the TTM. Brief interventions ranged from asking about an unhealthy lifestyle to delivering some information and signposting with possible follow-up as well as using techniques such as motivational interviewing. The most minimal of brief interventions can be useful, as Stephen stated '*(Name) practice nurse he said cut down smoking, so I did do* (Stephen).' Dr Stevens felt that within the time constraints he was able to deliver a brief message which was still effective, stating '*It has been shown that GP's just saying, "stop smoking" is actually better than nothing* (Dr Stevens).' A potential cumulative effect of repeated brief interventions was understood to have an effect. Dr Long suggested:

> '*It's about having a conversation repeatedly over several consultations, maybe with several different people, everybody saying "Actually you ought to stop smoking" or "Actually you ought to think about your alcohol consumption." So, I think every conversation is important, but it isn't necessarily the conversation that makes somebody stop smoking* (Dr Long).'

In addition to awareness raising, signposting was viewed as a major aspect of lifestyle interventions. Anna explained '*I think it's a signposting role really* (Anna).' Clinicians repeatedly used examples of when signposting, for example Dr Stevens stating, '*Of course I will offer referral to smoking cessation and if alcohol is a real issue I'll offer (name of misuse service), which obviously they refer themselves to* (Dr Stevens).'

Dr Avons described how more sophisticated levels of a brief intervention may involve using tools for motivational interviewing or cognitive behavioural therapy to tailor the brief intervention and make it most effective within the time constraints. In some cases, an intensive intervention was being offered by the clinician. Dr Stevens gave the example of a patient he helped to reduce alcohol intake describing '*I was bringing him back myself to see me once every fortnight, just to give a bit of help for him* (Dr Stevens).' Marie described a preference for follow up with the primary care clinician after a brief intervention stating they should say '*and then maybe come back and see me in 6 weeks and let's talk about how you are getting on, follow it up. Sometimes it is not always followed up* (Marie).'

4.4.5 Holistic care. The holistic care of patients is important in delivering brief interventions. The effect of an enduring mind-body dualism was highlighted as an area where brief interventions were considered less when dealing with people with mental health problems, with less mechanisms firing to move patients along the TTM. Lucy described her difficult journey with fibromyalgia being put down to her schizophrenia for several years. She stated that '*I think my other practitioners had ignored (symptoms of fibromyalgia) because of my mental health problem* (Lucy).' Dr Ahmed felt that '*You are either doing someone's physical health problem or you are doing someone's mental health problem often, that is how people perceive things* (Dr Ahmed).' Dr Williams felt that there was an expectation of poor physical health in patients with mental health problems stating, '*there is an acceptance of their physical health will be bad that they are overweight, and they smoke and then there is alcohol chucked in there as well and street drugs and prescription drugs so methadone and so on and so forth* (Dr Williams).' Dr Khan felt that whilst training has improved for clinicians to deliver holistic care, this can be lost due to the pressures of clinical practice. Yet the essence of general practice should be '*holistic*' and '*a continuity of holistic*

care not just your mental health it should be whatever, mental, physical, psychological,

social (Dr Williams)*.'*

4.4.6 Training needs. Patients felt that clinicians were doing well at their jobs and did not

need any further training. For example, when asked if any further training was needed

William answered, *'not that I can think of no'* (William) and Teresa said, '*I always think a*

doctor knows what they're on about (Teresa)*.'* Kate felt that due to training improvements

doctors are more skilled communicators than ever before.

The only training need highlighted by a patient was with regards to how to manage brief

interventions within a ten-minute consultation. Kate argued:

> '*It is a question of being in the right psychological place to be able to lose weight*
>
> *which is something I don't feel that is offered really by the health services… I would*
>
> *have liked a little bit more, even just a dietary talk just to know that there was a bit*
>
> *more willingness to support and recognition that maintaining a healthy weight is very*
>
> *difficult particularly for some people* (Kate)*.'*

The above highlights the need for training in psychological interventions such as motivational

interviewing as well further as information and advice to improve the mechanism of brief

interventions in moving patients along the TTM. This is in agreement with a general feeling

amongst clinicians, who felt that they were not specifically trained in brief interventions and

that this would have been useful. Dr Hughes felt that the training need was not in how to

deliver brief interventions but the evidence behind the effectiveness that would encourage

clinicians to use them. He stated that '*just seeing that evidence in the first instant gives me*

encouragement to do brief interventions and the value of them (Dr Hughes)*.'* Dr Avons felt

training would be useful in improving the delivery of brief interventions through consultation skills and motivational interviewing as well as cognitive behavioural therapy (CBT).

'There's something about general consultation skills. There's something about being non-judgmental. There's something about picking up on cues, because if you can't pick up on a cue when to back off on something, you know you've got to know when to say I'm going to leave this alone. I'm not going there now, it's not the right time. All I'm going to do is get someone's antibodies going here and that's not helpful, so something about that. Something about how we establish rapport. Something about continuity – how we could facilitate continuity in the appointment system, and then down to motivational interviewing specific things. Maybe even basic CBT that you could just implement for a couple of minutes quite easily (Dr Avons).*'*

Motivational interviewing was brought up by a number of clinicians as a training need. In terms of practically having the training sessions there were different views amongst clinicians of how it should be planned. Dr Jones preferred some sort of '*work between each other or role play'* to practically apply brief interventions during '*VTS (GP training scheme) training'* as well as at general practices '*in-house* (Dr Jones).*'* Dr Ahmed agreed that '*it would be nice for practices to have training* (Dr Ahmed).*'* Dr Hughes felt there is more of a need to push public health in general in '*undergrad programmes* (Dr Hughes).*'* Dr Avons felt more could be done amongst clinicians '*sharing resources, watching each other's videos* (Dr Avons).*'* Dr Khan highlighted that within the GP appraisal system there are certain continuing professional development areas that are compulsory but there is no emphasis on a need to develop preventative medicine. He further highlighted a training need for clinicians to be aware of services, describing the need '*to be hot on facilities available'* to support patients (Dr Khan).

4.4.7 Summary. A number of interconnected categories emerged from the interviews including tailoring the delivery of the brief intervention, rapport and clinician enthusiasm which affected the level of intervention offered and providing holistic care. Training needs were highlighted in particular for the evidence behind brief interventions and motivational interviewing. The theme of systemic factors will now be presented.

4.5 Systemic Factors

When patients are offered brief interventions within a primary care context it is important to understand the broader issues and barriers and facilitators to their implementation. Categories that emerged from the interviews conducted included the annual review system, continuity of care, time and workload constraints, utilising the wider primary care team, software support, other services and the wider social environment in which primary care is based. These involved a mixture of contexts and mechanisms from CMO configurations.

4.5.1 Annual review. All patients with a severe and enduring mental illness currently should be reviewed annually according to the Quality and Outcomes Framework (QOF). There is a target of percentage of patients reviewed which is linked to payment and may change annually. Annual reviews are a mechanism for moving patients along the TTM by including a computerised template which requires alcohol and smoking history, body mass index and other physical health variables. Clinicians from different practices displayed significant variance in how they undertook the annual review. This included pre-booked appointments with a specific nurse at some practices, pre-booked with doctors at other practices, and other practices did them opportunistically within appointments. Some practices gave extra time for the annual review such as by booking double appointment whilst others kept them within ten-minute slots. One practice booked the review at the end of surgeries allowing time to run

over. All of the patients interviewed were from one practice in which the reviews were done by a practice nurse.

The annual review was highlighted as an excellent opportunity for health promotion advice by both clinicians and patients. All of the patients interviewed stated that they were having their annual reviews. The annual review in fact may be the only time when health promotion messages are being put across. Dr Jones described the annual review as an excellent opportunity to discuss lifestyle interventions due to being embedded within a template and patients attend with this expectation. Dr Long explained that '*it is a perfectly reasonable opportunity because people usually aren't arriving in a crisis they usually come in because they are on a recall system* (Dr Long).' However, a drawback of the annual review can be poor attendance to appointments as Dr Long described that '*the process of calling people in for annual reviews is sometimes quite painful with this group of people, because they're not wonderful at attending'* and there is '*sometimes a chaotic use of our services* (Dr Long).' Another drawback Dr Smith highlighted was cases the issue of multiple medical problems needing an annual review, such as diabetes as well as a mental health reviews, all the problems would be reviewed within the same time leading to a less detailed review.

The annual review was argued to be superficial in addressing physical health problems. A number of patients described concerns about this. For example, Anna stated that she was informed she was drinking '*too much'* alcohol with no further advice ever being given (Anna). One explanation for the way in which the review used a '*tick box'* approach (Dr Hughes). Dr Hughes questioned the value of this type of review, stating '*it is a tick box symmetric culture have you done this tick, if you press tick you get paid. People will ask you because they get a tick in a box, but do they care anymore I don't know* (Dr Hughes).'

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Another critique of the annual review was made by Dr Avons. He alluded to a developing culture within general practice of illness-based reviews, which reduces holistic care by its very nature and also makes practices less accessible by using the appointments.

Medication reviews take place in the annual review. If the patient is under secondary care for their mental health problem the psychiatry team review this. Dr Mahmoud felt that secondary care is '*quite good from my experience, they do take all the responsibility of some of the medication that's been prescribed, so the anti-psychotic medications* (Dr Mahmoud).' Patients under secondary care on antipsychotic medication were comfortable with their medications being managed appropriately. Sarah replied a resounding '*Yes, yes*' when asked if she was comfortable with her medication reviews (Sarah). However, there were a minority of patients who had been discharged from secondary care who remained on antipsychotics. These patients did feel that their medication was not being managed adequately in primary care. In this case, a reason for the lack of trust in primary care managing the medications was due to the fact '*the practice nurse he does a mental health review and says how you doing, fine. But I know he's highly qualified but he's not a psychiatrist* (Anna).' Anna felt that medication reviews should be managed by '*a GP with specialist interest* (Anna).'

The lack of confidence and anxiety with the management of antipsychotic medication was also felt by clinicians. Dr Williams suggested a lack of knowledge and experience with antipsychotic medications and that they are not initiated in primary care. Dr Hughes felt that this lack of confidence was more of an issue with recently qualified GPs as previously in primary care there had been an expectation to manage these medications which is no longer present. Dr Stevens also cited the same lack of confidence changing medication but explained he would refer back to secondary care services if he felt a change to medication

was necessary. Dr Williams described that changing antipsychotic medication '*is more in the realm of secondary care'* and not the responsibility of generalists (Dr Williams). Not all clinicians would be comfortable to refer back to psychiatry services for dose adjustments feeling they are '*wasting people's time* (Dr Avons).*'*

4.5.2 Continuity of care. Continuity of care is another mechanism to improve the efficiency of moving patients across the TTM. Patients saw the same clinician during annual reviews and were keen on this approach. Kate said, '*You build up the rapport through continuity* (Kate).*'* This continuity of care made patients feel more likely to act upon brief interventions, as William stated:

> '*If they know the patient and how the patient's going to react, because if you've seen the doctor and you don't really know them, and they bring it up, I think the patient is less likely to listen to them, but if you know the doctor, you've seen them regular, you're going to know that they're not just bringing it up, just for hell of it, they're doing it for the best* (William).*'*

In this case it is the continuity of care that made the patient feel that they could trust their doctor due to the relationship built, leading to potentially better health outcomes. Clinicians were further supportive of continuity of care as a facilitator in the delivery of brief interventions. Dr Jones felt able to build up interventions in a step-by-step manner when appropriate during multiple consultations to maintain continuity of care. In contrast, a lack of continuity of care can damage the consultation. Sarah felt it is more damaging for people with mental health problems due to their vulnerability and past experiences, making it more difficult for them to develop rapport and trust others.

Continuity of care could be considered for specific periods of illness rather than seeing the same clinician all the time. Dr Jones stating that *'I don't think continuity of care necessarily needs to be the same clinician all the way through somebody's life, but for an episode of illness (Dr Jones).'* Dr Jones described continuity care was needed to be able to share management plans step by step. Otherwise in single encounters the GP would be overloading the patient, '*because if you send people out with "Right well you're going to do this with your exercise, you're going to do this with your diet and you're going to do this with your alcohol and this is what medication means, and this is what the IAPT service is and this is all the other ones around" they're not gonna take that on board (Dr Jones).'*

Whilst continuity of care was regarded as important, the practicality of ensuring this was perceived differently by patients. William felt it was very much possible. Dr Long explained that continuity of care was practical at her practice stating, *'for people with mental health problems I'm the identified doctor so a lot of people know that and will tend to come to me (Dr Long).'* Dr Khan felt that continuity of care was manageable in smaller practices particularly where GPs work full-time. Anna described a more challenging experience of wanting to maintain continuity of care but not being able to achieve it. Dr Smith felt that continuity of care is very important but not possible in present times due to the increase in workload. Kate felt a shift between general practice in its current form and general practice of recent decades in which continuity of care was more valued and applied. Dr Ahmed explained that continuity of care was further affected by the structure of appointments and the balance between pre-bookable appointments and providing emergency appointments.

As well as continuity of care with the same clinician, there was also a type of institutional continuity of care in respect that patients preferred to be seen by services in the same building

as opposed to services outside of the building. Kate preferred to be seen in *'a familiar environment'* (Kate) and Anna described a loss of ownership by being sent to different places. This was felt by clinicians as well, with Dr Khan attributing the success of a case of quitting smoking due to institutional continuity of care. Dr Williams described this further explaining that patient vulnerability such as transport factors makes institutional continuity of care more important. However, this preference of institutional continuity of care, whilst mainly prevalent amongst those interviewed, was not always the case.

4.5.3 Time and workload constraints. The strongest, most recurrent and emotive category during all interviews was the issue of time within general practice. This is a powerful context that was argued to be a barrier to moving patients across the TTM. Most practices had ten-minute consultations. This was felt to be *'certainly a barrier to having more holistic care* (Dr Mahmoud).*'* In particular a new presentation of mental illness was felt to be demanding on time. Dr Jones explained:

> *'So out of ten minutes it might take them 30 seconds to get to my room, probably the first two or three minutes they're quite upset they're not sure what to say and it's really not the kind of consultation where you can cut people short* (Dr Jones).*'*

Due to the lack of time, clinicians felt they were only able to address lifestyle interventions that were directly relevant. Depending on the GP structure time could be more or less of an issue. Dr Long explained time being a greater pressure at her surgery due to having nurse practitioners who saw all the quicker same day appointments. However, after the initial consultation, for reviews the consultation may be quicker than other consultations, which Dr Jones suggested may be an ideal opportunity to deliver brief interventions.

The lack of time was managed in a number of different ways. Dr Williams had a sign on his door saying *one appointment one problem*. Whilst this helped manage the time, he felt it may detract from reviewing and managing physical health opportunistically because '*even if they thought there was a physical health problem they won't mention it because there is a sign on the door that says only one problem* (Dr Williams).' Dr Jones explained he made a conscious decision to run late regularly to provide optimal patient care, reducing long-term workload and increasing job satisfaction. An ideal time-frame of fifteen or twenty minutes was discussed by clinicians with a challenge of the practicality of moving the consultation towards this.

The patient experience contrastingly perceived that there was sufficient time in the consultation. For example, William describing that '*any doctor that I've seen always given me enough time* (William).'

The issue of time was felt by clinicians to be compounded by and increasing complexity and workload. A minority view was that delivering brief interventions *'does not necessarily (increase workload) if you fit it in within your time scale* (Dr Long).' The majority of clinicians perceived that by delivering brief interventions their short-term workload would increase, although it would potentially decrease the long-term workload; which is more difficult to consider during a busy day. Dr Jones described:

> '*It (lifestyle interventions) increases the workload and it increases the time. Having said that I very much believe that I would like to empower patients to look after themselves so if that means that they can take some of these things on board and then they find it easier to deal with their situation, then that hopefully saves me time in the*

long run, because they might recover better, they might not be on medication for so

long (Dr Jones).*'*

Dr Williams described the increased workload because '*there are more and more problems*

out there because medicine has I suppose made advances and therefore there are guidelines

that we should do this, and we should do that (Dr Williams).*'* Dr Hughes felt that the

increased workload was a direct contributor to brief interventions not taking place, explaining

that '*It is not happening because people are just trying to get through the working day, they*

are just trying to manage (Dr Hughes).*'* Dr Williams agreed, stating '*GPs are all*

overworked we try and fight fire and you prioritise things, this I suspect you say right where

is patients with mental health physical health on your priority list and I think it would be

pretty low near the bottom...(Dr Williams)*'* Dr Mahmoud, explained that '*workload is*

increasing, I've just worked, I qualified in 2014 and I've noticed that the workload has

increased since then (Dr Mahmoud).*'* This was also felt by patients as a reason for brief

interventions not being offered as Teresa explained '*cos I think the doctor's got enough to do*

(Teresa).*'* Dr Hughes believed the dense workload was having a significant effect on morale

within general practice which lead to a reduced delivery of brief interventions.

4.5.4 Utilising the wider primary care team. A way of managing the workload is to

involve the wider primary care team to deliver brief interventions, potential mechanisms

supporting patients move along the TTM. In some cases, they may be better than clinicians,

as Dr Long stated that she was '*not always brilliant about the physical health side of things.*

So, for that sort of data collection, I need to be careful to signpost people back, it's actually

our healthcare assistants who do that, who are very good at ticking those boxes (Dr Long).*'*

Patients also felt that other members of the primary care team should be utilised. William

stated '*everyone*' should be involved in the delivery of brief interventions, due to increased contact with others in the primary care setting (William). Kate similarly described how a healthcare assistant was more helpful in discussing weight loss, possibly due to the clinician concentrating on medication and side effects. Dr Khan felt that even staff in administrative roles could play a part if trained appropriately. However, Dr Avons highlighted that they still need to be equipped with the skills and training to deliver brief interventions. As well as the clinical team, having access to someone, possibly a non-clinician from a similar mental health background was something that Marie felt would be beneficial. Patients were concerned about confidentiality and training issues in non-clinical staff utilising brief interventions, as Lucy stated, '*Obviously I wouldn't like to deal with the receptionist because it is a public room* (Lucy).' Stephen did not want administrative staff involved in delivering brief interventions because '*they are not qualified a lot of them* (Stephen).'

In Dr Smith's practice there were nurses trained in smoking cessation, but they were only able to see patients with known respiratory problems due to limited funding. Dr Smith described how people with mental health problems should also be regarded as a target group who should be provided this service due to their vulnerability.

Whoever is involved, it is important for patients to know who they can discuss lifestyle challenges with. Anna described a sense of confusion when asked about who she felt was best placed to deliver brief interventions stating, '*I don't, it's one of the problems that the NHS has is knowing who's the right person isn't it, like people like cutting a finger and going to A and E* (Anna).'

4.5.5 Software support. Software was found to be a supportive mechanism in the delivery of brief interventions triggering patients to move across the TTM. Dr Hughes explained that '*when people come in for their medication review with doctor and with patient we would look at the icon in the corner of the box to see if there are any outstanding other issues that we could do on the day (Dr Hughes).*' Dr Avons described '*you've got things flashing up on your screen which act as reminders (Dr Avons).*' However, software support also had its criticism as Dr Khan explained the purpose of following the computerised reminders for financial benefit and the drawback of not delivering quality brief interventions due to this focus.

4.5.6 Other services. Patients such as Teresa were generally positive about specialist services which they had been signposted to. The services available are part of the context as well as mechanism supporting patients moving along the TTM. Kate described her journey in stopping smoking:

> '*I think again I might have had a 6 monthly or annual check-up and it was brought up then and I was given a leaflet and told when the next course would be which was convenient because it was within walking distance to me and I was able to go on the course and I did it for 3 months so I was able to stop smoking and that was 2008 so I have actually given up for 8 years now (Kate).*'

This follow-up and continued support was viewed as an integral part of the process of making lifestyle changes. Marie described the positive value of such follow-up in encouraging patients to keep up lifestyle changes. However, Dr Khan felt the noticeable shift from managing alcohol and smoking for example from primary care to specialist services has led to '*deskilling GPs (Dr Khan).*'

Signposting was seen as so crucial that Thomas stated his most important message was to '*Keep up the good work and keep having the people for the weight, the sensation (cessation) clinic and gyms and things what you can do* (Thomas).' Signposting can be delivered by clinicians but there is also a role of other mechanisms of signposting that can be delivered within primary care. Lucy suggested that '*leaflets are a good idea* (Lucy)' and Teresa requested '*more leaflets outside* (Teresa).' More detailed information such as books could be useful as Kate stated, '*I have ended up buying doctor (named media doctor) books* (Kate).' Sarah suggested personalised leaflets with individual stories that empower patients to feel that they can also make the change.

Other services were thought of such as self-help groups, continuing this theme of having support from like-minded people of similar backgrounds who had made the lifestyle changes. Marie suggested drop-in sessions would be most beneficial for people with mental health problems. Anna gave a further mention of utilising the back sheet on letters for health promotion advice. Kate felt that '*For the younger generation those (social meetings and websites) are perhaps the better forums because they always seem to be on the phones or computers* (Kate).' From the patients it is very clear that a number of further methods could be utilised in conveying brief interventions than currently take place.

Private services were also felt to have a role. Kate described success with her weight when she tried '*slimming world, I did well and maintained the same weight for a number of years* (Kate).' Funding of these services could also be considered as she mentioned '*at one time they did used to pay for people to go to weightwatchers or other slimming clubs the exercise at the gym are good ways of encouraging people to change* (Kate).' Marie expressed in detail how other holistic services could be helpful. This was agreed by clinicians who felt to be

fighting against a tide without the needed support. Dr Khan highlighted flexibility and accessibility as a key facilitator to any service for this population.

Dr Long felt that there is an opportunity for CCGs to develop something more holistic and beneficial for patients with mental health problems as opposed to the current annual health reviews stating, '*It might be nice if in the sort of restructuring of the Quality Frameworks that I know is going on here and presumably in other CCGs, that something more practical for people with mental health would be useful, rather than the tick box exercise* (Dr Long).' This sentiment was shared by Dr Khan who felt that the current form of allocation of resources is too disease-focused leading to under-funding of preventative medicine.

Dr Williams suggested CCGs could fund a nurse practitioner to solely look at improving the physical health of people with mental health problems in the CCG, stating *'You could employ somebody probably part time to look after the patients with mental health, physical health. You could create clinics and it could be done properly* (Dr Williams).' He also felt that community psychiatric nurses are in a very good position to deliver brief interventions due to regular patient contacts stating '*I can't understand why the CPNs (community psychiatric nurses) can't be skilled up to do simple health… They spend a lot of time with the patients they are nurses... it wouldn't be much more than a day's course on the physical health of their patients* (Dr Williams).'

Developing technologies such as phone applications and social media as well as public health marketing options were some areas that Dr Khan felt is lacking at present. The National Health Service 111 was raised by Kate as a poor service factor which leads to sending patients to inappropriate places which may potentially increase workload.

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4.5.7 Wider social environment. There was an important contextual factor of a perception amongst patients that primary care deals with illness and preventative medicine is not a part of this. This made brief interventions less effective in moving patients along the TTM. However, this perception was felt to need shifting, as Kate stated, '*I think yes the health service as a whole should be more working towards more prevention* (Kate)*.*' Dr Jones further highlighted the value of preventative medicine stating, '*hopefully you're doing health promotion and therefore they won't develop whatever illnesses in the future* (Dr Jones)*.*' As well as preventative medicine, boundaries around illness and what is normal may need challenging. Marie stressed the importance of accepting people with mental health problems into society as opposed to stigmatising them being a form of therapy. Lucy felt that it was becoming increasingly challenging to make good health choices in present society. Dr Hughes explained that more needs to be done from a societal level in terms of supporting people rather than encouraging unhealthy behaviours due to financial and business incentives. He further described how public health needs to be considered centrally by government and issues such as marketing of unhealthy behaviours should be reviewed. Dr Hughes further described the need to train communities to be more resilient in managing unhealthy lifestyle behaviours rather than having an over-reliance on clinicians.

4.5.8 Summary. The theme of systemic factors was presented. Categories that emerged included the annual review system, continuity of care, time and workload constraints, utilising the wider primary care team, software support, other services and the wider social environment that primary care is based within. Dr Williams summarised succinctly '*I don't think without changing the system dramatically that you are going to have major input* (Dr Williams)*.*' The findings, initially presented in a thematic format which contained a mixture

of contexts, mechanisms and outcomes, will now be presented in context-mechanism-outcome statements (CMOs) as a further layer of data analysis.

4.6 Context-Mechanism-Outcome Statements

Context-mechanism-outcome statements (CMOs) were drawn out from the categories within the themes to summarise and further understand what works, for whom, in what respects, to what extent, in what contexts, and how. These are in illustrated in table 3 below. As described in the methodology section, the adapted CMOs based on the work of Dalkin and colleagues (Dalkin et al., 2015) were used of:

Mechanism (Resources) + Context→ Mechanism (Reasoning) = Outcome.

Table 3 CMOs of the Findings

Theme	Mechanism (Resources)+	Context→	Mechanism (Reasoning)=	Outcome
Patient factors	M(Re)[1] Lack of interventions to address physical health	C[1] Mental health problems; Unhealthy lifestyle used as a coping strategy	M(Ra)[1] Increased vulnerability; Not feeling valued holistically	O[1] Non-engagement; Increased unhealthy lifestyle choices; Increased morbidity and mortality; Increased need
	M(Re)[2] Clinician taking opportunities to communicate of how to change of unhealthy lifestyle	C[2] Non-engagement; Increased unhealthy lifestyle choices; Increased morbidity and mortality; Increased need	M(Ra)[2] Patient knows how to make lifestyle change; Made to feel capable of making change; Clinician focus on groups where the biggest difference could be made (proportionate universalism)	O[2] Made to feel valued holistically as a human being; Increased self-worth; Feels empowered and able to make lifestyle change
	M(Re)[3] Brief intervention delivered in contemplative stage	C[3] Made to feel valued holistically as a human being;	M(Ra)[3] Patient wants to be informed of how to make lifestyle change; Willing to make change	O[3] Improved morbidity and mortality;

		Increased self-worth; Feels empowered and able to make lifestyle change		Improved mental health
Clinical communication	M(Re)[1] Lack of delivery of brief interventions M(Re)[2] Superficial brief interventions M(Re)[3] Integrated undergraduate and postgraduate training in brief interventions, including motivational interviewing and basic cognitive-behavioural therapy techniques; Training in and utilising good quality of brief intervention Good rapport; Enthusiasm;	C[1] Mental health crisis C[2] Fewer brief interventions delivered C[3] No change in TTM; Continue unhealthy lifestyles	M(Ra)[1] May impair mental health in a crisis; Not a priority M(Ra)[2] Patient not aware of delivery of intervention M(Ra)[3] Tailored intervention based on individual to move forwards on TTM; Patient more willing to listen to clinician;	O[1] Fewer brief interventions delivered O[2] No change in TTM; Continue unhealthy lifestyles O[3] Patient awareness of being offered brief intervention; Moved forwards in TTM from precontemplation to contemplation and action; Value physical health more; Improved morbidity and mortality;
Systemic factors	M(Re)[1] Limited services available to support lifestyle change; Reduced funding in primary care preventative medicine; Time and workload pressures M(Re)[2] Integrated approach of mental and physical health; Repeated brief interventions; Annual review system; Full primary care team	C[1] Medical and societal lack of focus on preventative medicine C[2] Brief interventions not done; Patients remain in precontemplative and	M(Ra)[1] Lifestyle interventions not prioritised; M(Ra)[2] Valuing of physical and mental health equally; Development of trust and rapport; Transport less challenging; Signposting and encouragement to	O[1] Brief interventions not done; Patient unaware of effects of unhealthy lifestyle; Patient unaware of how to change unhealthy lifestyle; Continue unhealthy lifestyles; Potentially move backwards on TTM; O[2] Utilisation of services; Patient expectation of physical health being addressed; More likely to move forwards in TTM

utilised; Software support; Continuity of care and institutional continuity of care; Other services including funded and voluntary services	contemplative stages	other services who may offer more intensive support in making lifestyle changes	from precontemplation to contemplation and action; Improved morbidity and mortality

4.7 Chapter Summary

This chapter contains a detailed account of the findings which were three interconnected themes of patient factors, clinical communication and systemic factors. A number of categories are examined within each of these. CMO statements were developed within each theme as a further layer of data analysis. Of note, not all patients and clinicians we equally quoted. For example, Kate was a key informant on behalf of patients. In a small study of ten patients interviewed she repeated many points that others stated but articulated them in a clear and succinct manner and hence her quotes were used more than those of others. The discussion of the above findings will follow in the next chapter.

CHAPTER 5: DISCUSSION, CONCLUSION, RECOMMENDATIONS

5.1 Introduction

This chapter presents the themes and CMO statements identified and discusses the extent to which the TTM works as a candidate theory, in light of the published literature. Methodological weaknesses of the research and limitations have been discussed in chapter three. The purpose of this study was to explore the barriers and facilitators of the MECC approach for clinicians and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of people with mental health problems. The research addressed what works, for whom, and under what circumstances. Identified themes related to patient factors, clinician communication and systemic factors.

5.2 Patient Factors

There was a clear demand from patients for brief interventions. The desirability of such interventions was felt by both clinicians and patients to be more important in this client group due to perceived complexities and vulnerability. For clinicians, this importance also related to an acknowledged heterogeneity within the overarching mental health category, with a diverse range of need and vulnerability. Patients would only make a lifestyle change if they themselves were determined to do so. Making a lifestyle change could have a positive effect on their mental health, but the state of their mental health complicated their ability or motivation to make a lifestyle change. The TTM provides a constructive theoretical perspective for more detailed discussion and explication of these factors and the mechanisms that are triggered within specific contexts to shape outcomes.

5.2.1 Thematic discussion of patient factors. Patients very clearly demanded and expected to be offered brief interventions. They expected that is was a clinician's role to offer brief interventions, and were vocal that their primary mental health diagnoses should not lead to any devaluation of their physical health needs. Notably, even if a patient was unwilling at the time to make any lifestyle change they still had an appreciation for those aspects of the MECC approach that involved positive and proactive enquiries regarding their wellbeing. This may be due to aspects of identity, whereby self-worth is associated with the desire to be treated as a person rather than a diagnosis. Clinicians demonstrating concern for holistic care may thus reinforce a more positive sense of personhood and improve trust and relationship variables within the clinical encounter. By clinicians having a concern for individuals' smoking, weight and so on, individuals were given this holistic value and not identified singularly as a 'mental health' patient, with other aspects of their health ignored.

This embrace of holism concords with the policy narrative of *Bringing together physical and mental health: a new frontier for integrated care* in 2016 in which the fourth priority of strengthening primary care for the physical health needs of people with severe mental illness states:

> '*Primary care can play an important role in ensuring that people with mental illnesses receive equitable access to care across the system*' (Naylor et al., 2016 p. 28).

Implicitly, the clinicians may also be communicating a sense they perceive the patient to be able to make lifestyle changes even if they are yet to enact these, implicitly acknowledging personal potential and capacity to make changes. Depending upon how they are conducted, repeated MECC interventions reinforce this implicit confidence in personal potential and

capacity to make changes. This is an important finding as it validates and encourages clinicians to deliver brief interventions to this client group in a context when previously held concerns or assumptions regarding capability may have impeded proactive intervention.

Nevertheless, respecting the capabilities and potential of mental health service users need not blind us to various dimensions of vulnerability and engagement with services that complicate applications of MECC. The perception of vulnerability was based on two influences; vulnerability due to unhealthy lifestyle behaviours and vulnerability due to the challenge in making alternative choices. This was for a number of reasons as described in the findings chapter, such as reduced cognitive function potentially due to the nature of their illness or its treatment with psychotropic medications, social isolation and unemployment. These factors make it more challenging for patients to move along the TTM to making lifestyle changes. This explains in part the reduced life expectancy of 15 to 20 years in comparison to the general population (Russ et al., 2012; Wahlbeck et al., 2011; Correll et al., 2017; Starace et al., 2017) as well as the higher rates of unhealthy lifestyles (Baker et al, 2011; Starace et al., 2017). These multiple factors led to the context of vulnerability allowing for a mechanism of a more paternalistic doctor-patient relationship to operate. The outcome of this is an increased perceived need by clinicians to be proactive and engaged with MECC-type behaviours as well as a greater expectation from patients that this will be done. This does not imply a paternalistic doctor-patient relationship is positive. Rather, paternalism on the part of doctors in this context may be more sophisticated than merely 'doctor knows best' forms. Such paternalistic concern may indeed be appreciated by patients who seemingly have their personhood validated by attention to their physical health as opposed to a singular focus upon psychiatric diagnoses.

Patients and clinicians felt that clinicians should be more proactive in offering brief interventions due to patient vulnerability and their potential reduced ability to manage their own health. Just as the Marmot Report 2010 advocated 'proportionate universalism' i.e. having proportionate intervention based on the level of inequality to improve health, this proportionate universalism is needed on an individual level by clinicians investing more effort in consultations with people with mental health problems when delivering brief interventions (Marmot, 2010).

Clinicians highlighted patient engagement as a challenging issue with higher rates of non-attendance. When called in for appointments such as the annual review, they were more likely to miss them as well as appointments they had booked themselves. Not only could brief interventions not be given in non-attendance, it meant when they attended there were more areas to discuss with potentially less time to speak about lifestyle interventions. Furthermore, patient engagement can be challenging even when patients have attended consultations if not engaging within the clinical encounter. Non-engagement may be due to some contexts which are unavoidable for primary care clinicians, such as the patient having financial concerns or social isolation and not prioritising the health. However, there are also factors which can be managed by primary care clinicians such as supporting patients to be aware of their agency and ownership of their health. Hence, the patient-clinician relationship becomes a means of facilitating agentic empowerment and individuals' motivation to improve their health. MECC conversations can act as mechanisms to increase the sense of personal responsibility for health, without neglecting consideration for socio-economic/structural factors. This may cause an outcome of increased engagement. Thus in a further context of increased patient engagement, further mechanisms for successful MECC conversations are able to operate.

Despite acknowledgement of aspects of vulnerability and challenges to engagement, there need not be a contradiction with the aforementioned appreciation of patients' capabilities. The frequent and iterative nature of MECC can be simultaneously justified on the basis of perceived vulnerability necessitating a proactive approach and assumed capability, demanding that physical health needs are not neglected because of therapeutic pessimism. The subtle messages thus communicated play into understandings of motivation and readiness to contemplate or begin to make lifestyle changes that are understandable with regard to the TTM candidate theory.

5.2.2 Patient factors: Context-Mechanism-Outcome Statements & TTM.

Table 4 presents the CMOs of patient factors followed by their relation to the TTM.

Table 4 CMOs of Patient Factors

Mechanism (Resources)+	Context→	Mechanism (Reasoning)=	Outcome
M(Re)[1] Lack of interventions to address physical health	C[1] Mental health problems; Unhealthy lifestyle used as a coping strategy	M(Ra)[1] Increased vulnerability; Not feeling valued holistically	O[1] Non-engagement; Increased unhealthy lifestyle choices; Increased morbidity and mortality; Increased need
M(Re)[2] Clinician taking opportunities to communicate how to change of unhealthy lifestyle	C[2] Non-engagement; Increased unhealthy lifestyle choices; Increased morbidity and mortality; Increased need	M(Ra)[2] Patient knows how to make lifestyle change; Made to feel capable of making change; Clinician focus on groups where the biggest difference could be made (proportionate universalism)	O[2] Made to feel valued holistically as a human being; Increased self-worth; Feels empowered and able to make lifestyle change
M(Re)[3] Brief intervention delivered in contemplative stage	C[3] Made to feel valued holistically as a human being; Increased self-worth; Feels	M(Ra)[3] Patient wants to be informed of how to make lifestyle change; Willing to make change	O[3] Move along TTM into action stage; Improved morbidity and mortality; Improved mental health

	empowered and able to make lifestyle change		

The TTM is useful as a candidate theory in understanding the above CMO statements. In particular, the movement from the precontemplation to the contemplation stage can be well understood in terms of a patient not presently interested in making a lifestyle change. By being offered MECC they feel a greater sense of self-worth and capability which makes them believe they can make a change, potentially moving from precontemplation to contemplation. Once in a state of contemplation, individuals will be optimally receptive to the direct positive health messages of MECC, virtuously enhanced by the more subtle communication of appreciation of individuals' agency and capability. In this contemplative stage, when further offered MECC they may move to the action stage. However, for certain individuals, despite the potential for MECC to communicate implicit psychologically beneficial messages, the transition from precontemplation to contemplation to action may be inhibited. There may be a significant shift and change when a patient is in the precontemplative stage and they gain the increased self-worth and feel more holistically valued, but that may not actually push them into the contemplative stage. Hence there may be significant benefit in delivering MECC due to its effect on patient psychology but uncomplicated progression through the cycle of behavioural change is not achieved. This does not necessary refute the TTM as a candidate theory, but behoves practitioners to consider the complexities of individual circumstances and mental health status, requiring perhaps more sophisticated interventions than simple MECC and/or a commitment to perseverance to achieve positive lifestyle changes.

5.3 Clinician Communication

Clinician communication had a significant effect on brief interventions depending on how the clinician would tailor the brief intervention to the individual patient, rapport and clinician

enthusiasm. This led to different levels of intervention being offered, ranging from not at all, to a brief discussion to regular reviews and support to maintain lifestyle changes. This mechanism of level of intervention offered within MECC conversations affected the outcome of patient action.

5.3.1 Thematic discussion of clinician communication. The patient demand for brief interventions was not wholly mirrored or replicated by clinicians who described a worry and hesitancy to deliver brief interventions due to a concern for possible deterioration in mental health of patients changing their lifestyles. This mechanism could be considered as reasoning for potential negative consequences leading to an outcome of fewer MECC conversations. If this was associated with a lack of confidence in patient capability, it could be seen as potentiating a self-fulfilling prophecy of failure to achieve lifestyle changes. Improving health in the most vulnerable groups can make important contributions to preventing further increases in health inequalities, including the physical health care of those with mental health conditions who have a reduced life expectancy due to unhealthy lifestyle behaviours (Baxter et al., 2016). Whilst this is very understandably not a priority within the context of a patient crisis, in other contexts it is something which needs to be addressed. Outside of crisis situations, mechanisms can potentially operate which improve the mental health of patients by making lifestyle changes.

When clinicians considered they were delivering brief interventions, it was often not noticed by patients that this had occurred. Hence, the patient did not have any awareness or consciously register that this has taken place, nor did they act upon the brief intervention and move along the TTM cycle. Furthermore, brief interventions were often superficial such as the clinician saying that a patient drank too much alcohol or was overweight, without giving

any further advice. In this instance clinicians felt that they had delivered the brief intervention. Patients however were frustrated and did not feel that they received the advice or support or knowledge how to carry out the lifestyle change, such as safe reduction of alcohol, changing to drinks with a reduced alcohol content or how to build exercise into their lifestyle. The quality of the brief intervention is thus essential to enable any change. Otherwise within this context, and the mechanism of poor quality MECC conversations, the desired outcomes will not be achieved, and indeed may cause negative outcomes including patient frustration. Clinician awareness of risk factors is not the outcome that is desired, but rather developing the patient awareness and providing them with the necessary tools and supporting them to make healthy lifestyle changes. The message of '*don't just screen— intervene*' appears not yet to be ingrained within professionals and more work is needed to make this mantra part of clinical practice (Shiers, Rafi, Cooper, & Holt, 2014, p.2).

Whilst health promotion is included within the GP training curriculum, based on anecdotal experience it is not an area which is emphasised with medical school teaching or GP training. Lawrence and colleagues found that trained practitioners showed significantly better and more regular use of the communicative skills needed to assist behaviour change when compared to untrained peers (Lawrence et al., 2016). The Royal College of General Practitioners (RCGP) appreciate this and deliver a half day course entitled *Tackling chronic diseases through lifestyle behavioural changes, nutrition and physical activity*, which is free and discusses the evidence base and best practice for brief interventions, including some tools of motivational interviewing. Hence the mechanism of training for clinicians will cause the outcome of higher quality MECC conversations which will ideally be more likely to trigger lifestyle changes. However, until training in brief interventions such as MECC is integrated within undergraduate and postgraduate medical training, there will always be a fight against a

tide of the culture and context of clinical practice not emphasising lifestyle interventions. The effectiveness of MECC depends upon the context of which stage the patient is at in the transtheoretical model as well as the mechanism of the clinician assessing this and delivering appropriate tailored advice. This allows for patients to move from precontemplation to contemplation to preparation to action to maintenance. Hence, in any opportunity of delivering lifestyle advice, it is not always appropriate to aim for action as if the patient is at the precontemplation stage the call to action will fall on deaf ears. Conversely, if they are at the stage of preparation and are given advice for precontemplation it may lead to frustration which seems evident from a number of patient interviews. Therefore, the clinician should gather information before offering the brief intervention. This may be as brief as one further question such as asking if they have thought about quitting, and extrapolating where the patient is in terms of readiness to change based on their answer, or potential further question(s) if time allows. This mechanism of delivering MECC is more effective and efficient than offering the same advice to every patient. A '*one size fits all*' approach is likely to have little effect.

A second area of tailored delivery is to understand the patient as an individual within the context of their family and society, appreciating their vulnerability and capability. Thus, the lifestyle advice depends on the individual patient. Advising a patient to go to the gym or start swimming is not appropriate if they cannot afford to go and there are no financial support systems in place, or the transport is challenging. For someone else, encouraging them to go on walks may be limiting the amount of exercise when they are able to do more. This can be applied to lifestyle interventions; based upon the patient context the mechanism of the clinician tailoring their advice depending on the wider contexts of the individual may be more beneficial.

Related to tailoring information in a practical way, it is important to understand a very simple concept of c*hange*. To make a lifestyle *change* involves moving from an unhealthy habit into a healthier one, not stopping the unhealthy habit. This parallels the law of conservation of energy which states that energy cannot be created or destroyed, it can only be changed from one form to another (Feynman, Leighton, & Sands, 1963). One may argue that just like energy, lifestyle factors and habits cannot be created or destroyed, they can only be changed from one form to another. For example, someone may find it easier to move from a cigarette to an electronic cigarette or even having a pen to hold due to the habitual act. It is not the clinician who needs to come up with personalised answers for the patient depending upon their lifestyle, but merely to assist the patient to consider how they could *change* their unhealthy habits into something healthier. Many of the techniques of motivational interviewing pivot on this facilitation of individual imagination for the costs/benefits of particular changes that may be contemplated. By clinicians considering this, their brief interventions would be far more effective. For MECC conversations to have a generative potential to an outcome of sustained change, there must be a context of services and supportive groups available as well as clinician awareness and ability to direct towards them. There is a significant role for voluntary services as well as families and friends in developing this context.

5.3.2 Clinician communication: Context-Mechanism-Outcome Statements & TTM.

Table 5 presents the CMOs of clinician communication followed by their relation to the

TTM.

Table 5 CMOs of Clinician Communication

Mechanism (Resources)+	Context→	Mechanism (Reasoning)=	Outcome
M(Re)[1] Lack of delivery of brief interventions	C[1] Mental health crisis	M(Ra)[1] May impair mental health in a crisis; Not a priority	O[1] Fewer brief interventions delivered
M(Re)[2] Superficial brief interventions	C[2] Fewer brief interventions delivered	M(Ra)[2] Patient not aware of delivery of intervention	O[2] No change in TTM; Continue unhealthy lifestyles
M(Re)[3] Integrated undergraduate and postgraduate training in brief interventions, including motivational interviewing and basic cognitive-behavioural therapy techniques; Training in and utilising good quality of brief intervention Good rapport; Enthusiasm;	C[3] No change in TTM; Continue unhealthy lifestyles	M(Ra)[3] Tailored intervention based on individual to move forwards on TTM; Patient more willing to listen to clinician;	O[3] Patient awareness of being offered brief intervention; Moved forwards in TTM from precontemplation to contemplation and action; Value physical health more; Improved morbidity and mortality;

The TTM as a candidate theory can be used to understand well the above CMO statements. If

a patient is in the precontemplative or contemplative stage, a poor quality brief intervention

will have little effect on moving them forwards in the TTM. In fact, if the brief intervention is

of poor quality, it may actually move the patient backwards, such as from contemplative to

precontemplative. A way of improving the quality of brief interventions to move patients on a

national level more from precontemplation towards contemplation and action is by

embedding training in brief interventions within undergraduate and postgraduate medical education.

5.4 Systemic Factors

The main data categories identified as systemic factors included the annual review system, continuity of care, time and workload constraints, utilising the wider primary care team, software support, other services and the wider social environment that primary care is based within. These are relevant specifically to the context in which MECC operates.

5.4.1 Thematic discussion of systemic factors. Clinicians felt constrained by the focus of primary care to manage and cure disease and felt that it needs to have much more of a focus on preventative medicine. However, this would require a change to the status quo and current culture and context of general practice towards more integrated care. Patel and colleagues warned that there were risks involved for an integrated approach, including that some mental disorders could be overlooked, that the workload may be overburdening for the already frail health systems, and that research is lacking for integrated interventions and their success (Patel al., 2013). Hence there may be unintended outcomes of operating the mechanism of integrated care if the context of the current system is not in a position to adapt. Furthermore, Martin and colleagues stated that UK GPs were more stressed than other international colleagues, with 59% stating the job is stressful or very stressful and 92% spending less than 15 minutes per patient (Martin et al., 2016). The contrast in perception of appropriateness of the ten-minute consultation between clinicians and patients can be understood in terms of priorities. The patient priority may be addressed initially, and a lack of time may mean that clinicians are unable to bring up other relevant issues which are part of their workload. Such a context is unproductive for MECC being effective and may need to be

changed to allow the mechanism of MECC conversations to generate the intended outcomes in actuality.

The annual reviews are a mechanism by which many positives can be drawn, such as a high level of patients attending the reviews as well as documentation of brief interventions being delivered. However, this did not equate to the outcome of patients feeling that they had been given brief interventions or interventions of any useful quality so that they would be equipped with the knowledge or skills to make any change. There was a clinicians' view that this lapsed into a 'tick-box' exercise limiting its value. This is a key lesson for MECC as it is important that proponents of lifestyle change maintain a goal not simply of delivering brief interventions (figuratively or actually ticking a box), but of aiming for actual lifestyle change. Changes to GP funding will have an impact on the annual reviews as a mechanism of opportunistic health promotion. The Quality and Outcomes Framework (QOF) previously incentivised primary care in England to monitor the physical health of patients with mental health problems. Since 2014 this stopped and dramatic change has been seen in documentation of physical health parameters such as such as BMI with 88.9% documented in 2013-2014 in comparison to 57.4% in 2015-2016 (Horne, 2017). This changes the context within primary care. It goes only so far as informing that primary care is no longer monitoring these parameters when no longer incentivised; however, the quality of brief interventions if any, which is what would potentially lead to practical improvement in patient lives, is not addressed by these figures. The drop in documentation is of concern since one would reasonably expect a context where cardiometabolic risk factors are routinely documented within consultation notes to be more conducive for mechanisms to operate within consultations which address the risk factors.

In terms of medication management there is a lack of clarity with regards to psychotropic medication with the majority of the responsibility on psychiatrists who usually initiate the medications, but then may discharge patients who are stable to be under the care of the general practice. In this case clinicians within primary care acknowledge either a learning need in psychotropic medication management or that it should still be psychiatrist-led with regards to medication changes, in which case they would seek specialist help. Patients at present do not have trust in primary care to manage their psychotropic medications when not under psychiatry. This is due to a knowledge gap, annual reviews being done ad hoc and different clinicians undertaking the annual reviews such as the practice nurse, GPs and trainees. The outcome of reduced trust may lead to a further context in which MECC conversations are less likely to be effective.

As described, continuity of care and institutional continuity of care were key mechanisms for facilitating change. MECC should be viewed not as a singular encounter, but rather as repeated encounters. The concept of MECC being based on clinicians taking opportunities to deliver health promotion by way of healthy conversations means continuity of care allows for a context of trust to develop (Local Government Association, 2014). Patients are more willing to listen to clinicians in a context of trusting relationships. If these are present, then it can act as a great facilitator for patients to make lifestyle changes from brief interventions. If lacking, then the value and uniqueness of primary care in delivering brief interventions that patients are keen to act upon deteriorates. Hence, this continuity of care, on an individual level of clinician continuity of care as well as institutional continuity of care, needs to be developed as a mechanism for facilitating MECC.

In the context of challenges for patient transport and potential anxiety in different

environments, supportive facilities which are local to patients and accessible are significantly more important. Facilities may include support services such as smoking cessation services, alcohol support services, weight management services, sexual health clinics, and more holistic services such as local swimming pools, gyms and exercise classes. Exercise and activity can also enhance self-esteem, improve mood, reduce anxiety, increase stress resilience, as well as improve sleep (Cooney, Dwan, & Mead, 2014; Fox, 1999). These are contextual factors, and CCGs need to invest in such services to allow for mechanisms of MECC encounters to operate to improve physical health. By this being in place, these will facilitate patients to move along the TTM cycle.

5.4.2 Systemic factors: Context-Mechanism-Outcome Statements & TTM

Table 6 presents the CMOs of systemic factors followed by their relation to the TTM.

Table 6 CMOs of Systemic Factors

Mechanism (Resources)+	Context→	Mechanism (Reasoning)=	Outcome
M(Re)[1] Limited services available to support lifestyle change; Reduced funding in primary care preventative medicine; Time and workload pressures	C[1] Medical and societal lack of focus on preventative medicine	M(Ra)[1] Lifestyle interventions not prioritised;	O[1] Brief interventions not done; Patient unaware of effects of unhealthy lifestyle; Patient unaware of how to change unhealthy lifestyle; Continue unhealthy lifestyles; Potentially move backwards on TTM;
M(Re)[2] Integrated approach of mental and physical health; Repeated brief interventions; Annual review system; Full primary care team utilised; Software	C[2] Brief interventions not done; Patients remain in precontemplative and contemplative stages	M(Ra)[2] Valuing of physical and mental health equally; Development of trust and rapport; Transport less challenging; Signposting and encouragement to other services who may offer more	O[2] Utilisation of services; Patient expectation of physical health being addressed; More likely to move forwards in TTM from precontemplation to

support; Continuity of care and institutional continuity of care; Other services including funded and voluntary services		intensive support in making lifestyle changes	contemplation and action; Improved morbidity and mortality;

The TTM is partially useful as a candidate theory in understanding the above CMO statements. The challenges of funding, services, time and workload pressures in primary care causes lifestyle interventions to be less prioritised which leads to patients being less likely to move along the stages of the TTM. A number of resources are available and suggested which can help to support them to move along the TTM cycle.

5.5 Implications

The need for primary care to be a bastion for preventative medicine is clear, and there are many examples of good practice. However, due to the challenges discussed, there is still some way to go for primary care to address this. MECC is perhaps an ideal approach to dealing with poor physical health of people with mental health problems, the relative neglect of which is arguably a national scandal. This approach has a significant potential to improve the physical health of people with mental health problems if used appropriately. Its strength is that it is a potentially cost-effective ideology and approach that can be applied to existing practice in a whole manner of contexts. However, for MECC to be effective and transferable, contextual factors must be put in place so that mechanisms can be generated which produce positive outcomes. Without this occurring, MECC may remain an interesting idea without fulfilling its potential.

MECC should be considered to be everyone's responsibility, not restricted to clinicians or to primary care, but to be taken up by allied health professionals, other services, families and friends. The level of intervention should be different depending on the skills and knowledge

of those delivering the brief intervention as well as the stage the person is at who is receiving the brief intervention and the context. For example, physiotherapists, dieticians and an array of multi-professional team members involve themselves in MECC (Local Government Association, 2014). However, I would argue that the greatest responsibility is on primary care clinicians with leadership responsibility for holistic patient care to support a culture whereby all disciplines can contribute effectively. This is needed through a collaborative and integrative approach; in fact, nurses and health care assistants may be better placed to deliver brief interventions due to differences in training and potentially more time spent with patients. The context of a culture of supportive health advice needs to be led by professionals with funding attached and supported by CCGs operating a public health ethos in a context of commitment to wider, progressive societal change. Arguably, this is very much something that can be achieved.

The need to develop resources appropriate to the present digital age is clear, with leaflets, television adverts, phone applications, and social media. The context of society has changed dramatically with burgeoning access to social media, offering valuable opportunities to action effective MECC health promotion within these formats. Utilising these tools can be a means of reducing health inequality as well as reaching out to large numbers (Welch et al., 2016). The extent to which a supposed digital revolution is able to impact health inequalities is itself subject to critique. For some, the fact that even smart phones are seemingly ubiquitous is a positive development, for others there is scepticism that the most disadvantaged populations can access even basic technologies (McAuley, 2014).

Interventions should be targeted towards the most vulnerable groups as well as the issues causing most vulnerability. For example, services tend to be much better developed with

regards to interventions for alcohol and smoking, but weight is often a larger concern for patients and is one that clinicians are less comfortable in raising. Hence, a mechanism of weight management services could be considered a priority amongst other services as well a focus on specific groups. People with mental health problems are more vulnerable and services should be targeted towards this group amongst other vulnerable groups.

The issue of what to change *to* is one that needs addressing on a CCG level in terms of services offered. Exercise on prescription, smoking cessation services and similar services need to be accessible from primary care. These mechanisms should cause improved outcomes. An example of this in Worcestershire of the Supporting Health and Promoting Health Programme (SHAPE), which is a 12-week programme with gymnasium and consultation room facilities directed towards young people diagnosed with psychosis and includes integrated support from different specialities including nutritionists, exercise physiologists and health trainers (Smith et al., 2014). Voluntary services are always useful, such as local gardening clubs offering social integration separate to for example alcohol environments, but there is always the concern with voluntary services' sustainability.

5.6 Recommendations for Action

Training is an area that needs addressing within primary care. Public health as a part of general practice needs to be emphasised and given its right amongst other fields that a general practitioner would not miss out in ensuring to be knowledgeable such as paediatrics, respiratory medicine and so on. Basic training in motivational interviewing needs to be integrated within the curriculum. This should be done at an undergraduate level as health promotion is not restricted in any way to primary care clinicians. Medical students are taught to ask about smoking, alcohol, sexual health, exercise and so on, and it is useful to gain this information. However, they should be taught what to do with this information, with skilful

brief intervention. MECC or similar approaches need to be taught in a practical and evidence-based manner. This could be incorporated within the GP vocational scheme training such as small group work developing skills of brief interventions as well as presentations of the evidence base behind it. By integrating health promotion deeper within the curriculum, this could change the context within which healthcare operates, facilitating clinicians to view MECC approaches as part of their core work.

With regards to the annual review, more nuanced forms of quality improvement could be put in place to achieve benefit for the patients, which include addressing core problems within general practice, allowing GPs to perform opportunistic healthcare. The carrot and stick method of quality improvement is of limited use when clinicians are feeling like they are firefighting continuously. The mechanisms operating within the annual review have limited success and should be reviewed and improved. Furthermore, practices have a clinical lead for mental illness and this lead could undertake some basic training in psychotropic medication management if they are not experienced with them. They could also arrange for annual reviews to be separate appointments and not done opportunistically when the patient presents with other problems- except in the case of non-compliant patients.

Clinical commissioning groups should prioritise preventative medicine incentivising services further, but during a time of cuts and financial drawbacks it is challenging to push this agenda. Ultimately, until and unless the context of the core issues of primary care workforce and workload are addressed, preventative medicine will never thrive within general practice. In the background of this any significant change within the context of general practice is difficult to expect and potential MECC mechanisms are unlikely to be generated or be effective. For this to occur, more than further rhetoric on parity of esteem, investment is

needed on a grass-roots level.

5.7 Recommendations for Further Research

The first recommendation for future practice is to implement a mixed methods study in other areas in the UK, in order to determine the differences or similarities in applying MECC in other geographical areas. Such a study may provide a deeper understanding of further challenges which may be faced by clinicians in different areas.

The second recommendation for future research would be to conduct a longitudinal study on people with mental health problems and the influences of MECC on their lives and their physical health. Conducting a longitudinal study will provide insight into the frequency of exposure to the MECC approach, how long it takes for patients to make a change in their lifestyle, and the long-term consequences.

The third recommendation would be to undertake research with a larger cohort of patients and clinicians via stratified sampling and analyse if the results were similar. Interviewing patients from different practices where different systems are in operation, such as different systems of review and longer 15-minute appointments would be a further area of research. The results of such a study would also be very insightful, to see if there was any difference in the patient experience of brief interventions given the extra time with clinicians.

5.8 Chapter Summary

The purpose of this qualitative study was to explore the barriers and facilitators of the MECC approach for clinicians and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of people with mental health problems. It was

based on principles from realist evaluation. Mental health problems are a widespread

challenge, and research indicates that mortality and morbidity rates are increased for

individuals with severe mental illnesses (De Hert et al., 2011, Russ et al., 2012; Wahlbeck et

al., 2011, Correll et al., 2017; Starace et al., 2017). This study explored which barriers and

facilitators exist for clinicians to implement brief intervention approaches to improve the

physical health of people with mental health problems; furthermore which barriers and

facilitators exist for people with mental health probelms to engage in measures to improve

their physical health. Key findings included a demand from patients for the delivery of brief

interventions, a need for training clinicians in the delivery of quality brief interventions, and

the challenging context within primary care which makes the regular delivery of brief

interventions difficult.

The research gave a local service provider and patient perspective on barriers and facilitators

to developing brief intervention models in the future from a primary care perspective.

Perceived challenges and training needs were identified. This further informed practice as to

how clinicians in primary care can Make Every Contact Count to improve the physical health

of people with mental health problems and lead to systematic and organisational

improvements of the health of this cohort.

The findings substantially answered the research questions, allowing for discussions of what

works, for whom, and under what circumstances. This was discussed in terms of contexts,

mechanisms and outcomes. The transtheoretical model was found to be an effective

theoretical framework for expanding understanding how MECC works and how to optimise

its use and effectiveness within primary care. Consideration of a cycle of behavioural change

such as offered by the TTM, moving through phases of precontemplation, contemplation and

action, suggests that clinicians need to be cognisant of the preparedness of patients to undertake lifestyle change and tailor their approach accordingly; otherwise certain applications of MECC will be unsuccessful, at least in the short-term. An iterative, long-term application of MECC may opportunistically catch people at the optimum phase of the TTM, but more sophisticated communicative approaches may be much more effective and require additional training.

Implications and recommendations were discussed. The challenge for NHS and health in general in the United Kingdom is to find innovative solutions to improve care with funding concerns. This is a challenging task and against the tide of acute priorities health, but MECC may be well be one of the solutions.

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15 September 2016

Dear Dr Awan and Professor Duxbury

Letter of HRA

Study title:	**To explore the barriers and facilitators for clinicians, stakeholders and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of patients with mental illness.**
IRAS project ID:	**200959**
REC reference:	**16/NW/0632**
Sponsor	**University of Central Lancashire**

I am pleased to confirm that **HRA Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications noted in this letter.

Participation of NHS Organisations in England

The sponsor should now provide a copy of this letter to all participating NHS organisations in England.

Appendix B provides important information for sponsors and participating NHS organisations in England for arranging and confirming capacity and capability. **Please read *Appendix B* carefully**, in particular the following sections:

- *Participating NHS organisations in England* – this clarifies the types of participating organisations in the study and whether or not all organisations will be undertaking the same activities
- *Confirmation of capacity and capability* - this confirms whether or not each type of participating NHS organisation in England is expected to give formal confirmation of capacity and capability. Where formal confirmation is not expected, the section also provides details on the time limit given to participating organisations to opt out of the study, or request additional time, before their participation is assumed.
- *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria) -* this provides detail on the form of agreement to be used in the study to confirm capacity and capability, where applicable.

Further information on funding, HR processes, and compliance with HRA criteria and standards is also provided.

It is critical that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details and further information about working with the research management function for each organisation can be accessed from www.hra.nhs.uk/hra- approval.

Appendices

The HRA Approval letter contains the following appendices:

- A – List of documents reviewed during HRA assessment
- B – Summary of HRA assessment

After HRA Approval

The document *"After Ethical Review – guidance for sponsors and investigators",* issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

In addition to the guidance in the above, please note the following:

- HRA Approval applies for the duration of your REC favourable opinion, unless otherwise notified in writing by the HRA.
- Substantial amendments should be submitted directly to the Research Ethics Committee, as detailed in the *After Ethical Review* document. Non-substantial

  amendments should be submitted for review by the HRA using the form provided on the HRA website, and emailed to hra.amendments@nhs.net.
- The HRA will categorise amendments (substantial and non-substantial) and issue confirmation of continued HRA Approval. Further details can be found on the HRA website.

Scope

HRA Approval provides an approval for research involving patients or staff in NHS organisations in England.

If your study involves NHS organisations in other countries in the UK, please contact the relevant national coordinating functions for support and advice. Further information can be found at http://www.hra.nhs.uk/resources/applying-for-reviews/nhs-hsc-rd-review/.

If there are participating non-NHS organisations, local agreement should be obtained in accordance with the procedures of the local participating non-NHS organisation.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please email the HRA at hra.approval@nhs.net. Additionally, one of our staff would be happy to call and discuss your experience of HRA Approval.

HRA Training

We are pleased to welcome researchers and research management staff at our training days
– see details at http://www.hra.nhs.uk/hra-training/

Your IRAS project ID is **200959**. Please quote this on all

correspondence. Yours sincerely

Isobel Lyle
Senior Assessor

Email: hra.approval@nhs.net

Appendix A - List of Documents

The final document set assessed and approved by HRA Approval is listed below

Document	Version	Date
Copies of advertisement materials for research Participants	1	15 June 2016
Copies of advertisement materials for research Participants	1	15 June 2016
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only)		01 August 2016
GP/consultant information sheets or letters	1	15 June 2016
Interview schedules or topic guides for participants	1	30 May 2016
IRAS Application Form [IRAS_Form_29072016]		29 July 2016
Letter from funder		30 September 2015
Other [Caldicott Guardian]		
Other [Letter from GPs to relevant patients]		
Other [Statement of Activities]	1	25 August 2016
Other [Schedule of Events]	1	25 August 2016
Participant consent form [Patient]	2	25 August 2016
Participant consent form [Staff]	2	25 August 2016
Participant information sheet (PIS) [Patient]	2	25 August 2016
Participant information sheet (PIS) [Staff]	2	25 August 2016
Referee's report or other scientific critique report [Referee Critique]		
Research protocol or project proposal	2.13	15 July 2016
Summary CV for Chief Investigator (CI) [CI CV]		
Summary CV for student [Student CV]		
Summary CV for supervisor (student research) [Supervisor CVs]		
16.NW.0632 REC favourable opinion		14 September 2016

Appendix B - Summary of HRA Assessment

This appendix provides assurance to you, the sponsor and the NHS in England
that the study, as reviewed for HRA Approval, is compliant with relevant
standards. It also provides information and clarification, where appropriate, to
participating NHS organisations in England to assist in assessing and arranging
capacity and capability.

For information on how the sponsor should be working with participating

NHS organisations in England, please refer to the, *participating NHS organisations, capacity and capability* and *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* sections in this appendix.

The following person is the sponsor contact for the purpose of addressing participating organisation questions relating to the study:

Denise Forshaw, dforshaw@uclan.ac.uk

HRA assessment criteria

Section	HRA Assessment Criteria	Compliant with Standards	Comments
1.1	IRAS application completed correctly	Yes	No comments
2.1	Participant information/consent documents and consent process	Yes	No comments
3.1	Protocol assessment	Yes	No comments
4.1	Allocation of responsibilities and rights are agreed and documented	Yes	Although formal confirmation of capacity and capability is not expected of all or some organisations participating in this study (see *Confirmation of Capacity and Capability* section for full details), and such organisations would therefore be assumed to have confirmed their capacity and capability should they not respond to the contrary, we would ask that these organisations pro-actively engage with the sponsor in order to confirm at as early a date as possible. Confirmation in such cases should be by email to the CI and Sponsor confirming

			participation based on the relevant Statement of Activities and information within this Appendix B.

Section	HRA Assessment Criteria	Compliant with Standards	Comments
4.2	Insurance/indemnity arrangements assessed	Yes	IRAS A76 states that the design, management and conduct of the study is covered by the NHS but the Sponsor is the University. The applicant has confirmed that the design and management will be covered by the Sponsor. Where applicable, independent contractors (e.g. General Practitioners) should ensure that the professional indemnity provided by their medical defence organisation covers the activities expected of them for this research study
4.3	Financial arrangements assessed	Yes	The study is funded by East Lancashire Clinical Commissioning Group
5.1	Compliance with the Data Protection Act and data security issues assessed	Yes	No comments
5.2	CTIMPS – Arrangements for compliance with the Clinical Trials Regulations assessed	Not Applicable	
5.3	Compliance with any applicable laws or regulations	Yes	No comments
6.1	NHS Research Ethics Committee favourable opinion received for applicable studies	Yes	14 September 2016

6.2	CTIMPS – Clinical Trials Authorisation (CTA) letter received	Not Applicable	
6.3	Devices – MHRA notice of no objection received	Not Applicable	
6.4	Other regulatory approvals and authorisations received	Not Applicable	

Participating NHS Organisations in England

This provides detail on the types of participating NHS organisations in the study and a statement as to whether the activities at all organisations are the same or different.

There is 1 site type for this study. Activity at site is limited to the inclusion of GP's as participants and patients, participating in a 1 hour interview.

GP's and participants will be identified via a poster on the PPI facebook group and also through the GP practice. If there are any suitable patients that a GP from the surgery feels may be appropriate they may write to them to ask if they would be interested to participate - this has been discussed with the GP Surgery Caldicott Guardian who has written a letter of support (attached).

The GP practice will also need to provide a room for the interviews to take place.

The Chief Investigator or sponsor should share relevant study documents with participating NHS organisations in England in order to put arrangements in place to deliver the study. The documents should be sent to both the local study team, where applicable, and the office providing the research management function at the participating organisation. For NIHR CRN Portfolio studies, the Local LCRN contact should also be copied into this correspondence. For further guidance on working with participating NHS organisations please see the HRA website.

If chief investigators, sponsors or principal investigators are asked to complete site level forms for participating NHS organisations in England which are not provided in IRAS or on the HRA website, the chief investigator, sponsor or principal investigator should notify the HRA immediately at hra.approval@nhs.net. The HRA will work with these organisations to achieve a consistent approach to information provision.

Confirmation of Capacity and Capability

This describes whether formal confirmation of capacity and capability is expected from participating NHS organisations in England.

Participating NHS organisations in England **are not expected to formally confirm their capacity and capability to host this research**.

- The HRA has informed the relevant research management offices that you intend to undertake the research at their organisation. However, you should still support and liaise with these organisations as necessary.
- It is expected that these organisations will become participating NHS organisations 35 days after the date of issue of this letter (no later than **6 October 2016**):
  - o You may not include the NHS organisation if they provide justification to the sponsor and the HRA as to why the organisation cannot participate
  - o You may not include the organisation if they request additional time to confirm, until they notify you that the considerations have been satisfactorily completed.
  - o You may not begin the research at any participating NHS organisation in England until a Letter of HRA Approval has been issued.
- You may include NHS organisations in this study in advance of the deadline above where the organisation confirms by email to the CI and sponsor that the research may proceed, and a Letter of HRA Approval has been issued.
- The document "Collaborative working between sponsors and NHS organisations in England for HRA Approval studies, where no formal confirmation of capacity and capability is expected" provides information for the sponsor and NHS organisations on working collaboratively with NHS organisations in England where no formal confirmation of capacity and capability is expected, and the processes involved in adding new organisations. Further study specific details are provided in the *Participating NHS Organisations* and *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* sections of this appendix.

Principal Investigator Suitability

This confirms whether the sponsor position on whether a PI, LC or neither should be in place is correct for each type of participating NHS organisation in England and the minimum expectations for education, training and experience that PIs should meet (where applicable).

A Local Collaborator will be required at site to facilitate letters of access and identify potential participants.

GCP training is not a generic training expectation, in line with the HRA statement on training expectations.

HR Good Practice Resource Pack Expectations

This confirms the HR Good Practice Resource Pack expectations for the study and the pre-engagement checks that should and should not be undertaken

A letter of access, occupational health and DBS checks will be required for staff who are not employed by the organisation.

Other Information to Aid Study Set-up

This details any other information that may be helpful to sponsors and participating NHS organisations in England to aid study set-up.
The applicant has indicated that they <u>do not intend</u> to apply for inclusion on the NIHR CRN Portfolio.

Appendix B: Letter of REC Approval

NHS
Health Research Authority

North West - Lancaster Research Ethics Committee
Barlow House, 3rd Floor 4 Minshull Street Manchester
M1 3DZ

Telephone: 020 71048008

20 September 2016

Dr Hassan Awan

███████████████████████

Dear Dr Awan

Study title:	**To explore the barriers and facilitators for clinicians, stakeholders and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of patients with mental illness.**
REC reference:	**16/NW/0632**
IRAS project ID:	**200959**

Thank you for your email of 19 September. I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 14 September 2016

Documents received

The documents received were as follows:

Document	Version	Date
Participant information sheet (PIS) [patient]	3	19 September 2016
Participant information sheet (PIS) [staff]	3	19 September 2016

Approved documents

The final list of approved documentation for the study is therefore as follows:

Document	Version	Date
Copies of advertisement materials for research participants	1	15 June 2016
Copies of advertisement materials for research participants	1	15 June 2016
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Insurance]		
Interview schedules or topic guides for participants	1	30 May 2016

IRAS Application Form [IRAS_Form_29072016]		29 July 2016
IRAS Application Form XML file [IRAS_Form_29072016]		29 July 2016
Other [Caldecott Guardian]		
Other [Letter from GPs to relevant patients]		
Participant consent form [Patient Consent Form]	1	19 May 2016
Participant consent form [Staff Consent Form]	1	19 May 2016
Participant information sheet (PIS) [patient]	3	19 September 2016
Participant information sheet (PIS) [staff]	3	19 September 2016
Referee's report or other scientific critique report [Referee Critique]		
Research protocol or project proposal	2.13	15 July 2016
Summary CV for Chief Investigator (CI) [CI CV]		
Summary CV for student [Student CV]		
Summary CV for supervisor (student research) [Supervisor CVs]		

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor's responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

16/NW/0632	Please quote this number on all correspondence

Yours sincerely

[signature]

PP.

Carol Ebenezer REC Manager

E-mail: nrescommittee.northwest-lancaster@nhs.net

Copy to: *Dr Hassan Awan, NHS Blackburn with Darwen CCG*

Appendix C: Letter of UCLan Ethical Approval
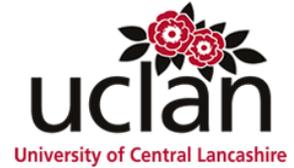
27th September 2016

Michael Mckeown/Hassan
Awan School of Nursing
University of Central

Lancashire Dear

Michael/Hassan,

Re: STEMH Ethics Committee
Application Unique reference
Number: STEMH 550

The STEMH ethics committee has granted approval of your proposal application 'To explore the barriers and facilitators for clinicians, stakeholders and patients in a primary care setting in endeavouring to implement approaches to improve the physical health of patients with mental illness'. Approval is granted up to the end of project date* or for 5 years from the date of this letter, whichever is the longer. It is your responsibility to ensure that:

- the project is carried out in line with the information provided in the forms you have submitted
- you regularly re-consider the ethical issues that may be raised in generating and analysing your data
- any proposed amendments/changes to the project are raised with, and approved, by Committee
- you notify roffice@uclan.ac.uk if the end date changes or the project does not start
- serious adverse events that occur from the project are reported to Committee
- a closure report is submitted to complete the ethics governance procedures (Existing paperwork can be used for this purposes e.g. funder's end of grant report; abstract for student award or NRES final report. If none of these are available use e-Ethics Closure Report Proforma).

Please also note that it is the responsibility of the applicant to ensure that the ethics committee that has already approved this application is either run under the auspices of the National Research Ethics Service or is a fully constituted ethics committee, including at least one member independent of the organisation or professional group.

Yours sincerely,

Kevin
Butt
Vice
Chair
STEMH Ethics Committee

Appendix D: Letter from Caldicott Guardian at GP Surgery

[redacted]

24.0616

To Whom it may concern,

I, can confirm, as Caldicott Guardian, that the research project 'Making Every Contact Count: Mental Health' has been approved by the Practice in line with Caldicott principles I will work with the researcher Dr Hassan Awan to ensure that the principles listed below are adhered to:

1. Justify the purpose(s) of using confidential information
2. Don't use patient identifiable information unless absolutely necessary
3. Use the minimum necessary patient-identifiable information
4. Access to patient identifiable information should be on a strict need-to-know basis Everyone with access to patient identifiable information should be aware of their responsibilities
5. Understand and comply with the law

Yours Sincerely

[signature]

[redacted]

Appendix E: Patient Invitation Poster

Patient Version 1 15/06/16

uclan
University of Central Lancashire

Research Participants Needed

Are you under the care of a mental health team for a mental illness?

If yes, would you be willing to take part in our study?

What is the aim of the study?

Patients with mental health problems often access physical health interventions less which can lead to worse health outcomes. The aim of the study is to look at how we can improve physical health by taking more and better opportunities to make every contact count.

What is involved?

Interviews in person exploring barriers and facilitators to physical health interventions lasting 40-60 minutes. Please see the information sheet for more details.

How will my interview be used?

The interview will be transcribed and anonymised as part of a postgraduate research degree.

Who is doing the research?

Dr Hassan Awan, a GP trainee and academic clinical fellow as part of a Masters by Research with the University of Central Lancashire, funded by East Lancashire Clinical Commissioning Group.

Interested to participate?

Please contact Dr Awan for more details on: hawan1@uclan.ac.uk

Appendix F: Staff Invitation Poster

Participant Information Sheet

Making Every Contact Count (MECC) in Primary Care:

Improving Physical Health of Patients with Mental Health Problems

Invitation to participate:

You are invited to take part in a research study. Before you decide if you would like to take part, it is important to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish. Ask if there is anything that is not clear or if you would like further information.

What is the purpose of the study?

People with mental health problems are known to often have worse physical health than people without. The purpose of this study is to find out the barriers and facilitators in implementing brief interventions to improve the physical health of people with mental health problems. A brief intervention is a technique used to initiate change for an unhealthy or risk behavior such smoking, alcohol, exercise and may last a few minutes. Whilst there is a lot of research about individual interventions and their effectiveness, there is little about how a combined approach may help. The study will last a year and will involve interviews.

Why have I been invited to participate?

You have been invited because you have been diagnosed with a mental health problem and are under the mental health team.

What will the research involve?

The research will involve an interview of up to one hour. The interview will ask you about your views and experiences of healthcare workers taking opportunities to address your physical health. They will include how often you are asked about your physical health, smoking, alcohol and so on. Including what approaches you think work and don't work. The interview will be voice-recorded with your permission. Any recordings will be erased after the project is completed. Travel expenses will not be paid.

Do I have to take part?

No - it is entirely up to you to decide whether or not to take part. We will explain the study to you and give you this information sheet to keep. If you decide to take part we will ask you to sign a consent form to show that you have an understanding of the research and have agreed to take part. The consent form will also ask for permission to use anonymised information from the interview. You can bring a friend to the interview if you prefer. You can choose not to answer questions and can leave the study at any time and without giving a reason. However, you will only be able to remove all your information up to the time anonymised data analysis is completed. A decision to leave the study, or a decision to not take part at all, will not affect the standard of care patients receive in any way.

What are the possible benefits of taking part?

There is no direct benefit to taking part although you may feel benefit from talking about your experiences. We hope that the information we get from this study will help us to understand how best to take opportunities to improve the physical health of patients with mental health problems. Hopefully the project will improve understanding of what works best.

What are the possible risks of taking part?

There are no particular risks to taking part in this study. If a person finds any part of the interview upsetting we can stop it at any time. The interviewer is a doctor and GP trainee who has worked in mental health settings and is experienced in dealing with distress. Other GPs at the Surgery will also be available if needed.

What happens when the research study stops?

When the research study stops we will examine the information we have collected and use it to inform healthcare workers, researchers, patients and commissioners as to the best way forward.

Will my taking part in this study be kept confidential?

All information collected during the research will be kept strictly confidential. Personal data will be coded so that no individual can be recognised. We will only break confidentiality if there is a risk of harm to a person or others. We will not let anyone else have this link. If you give permission, we will let your GP know that you are taking part. After the study is published, the link will be destroyed, and then your name cannot be matched up with the information you have provided. Only members of the research team will listen to recordings and read the interviews. The information we collect may also be looked at by regulatory authorities but

only to check that the researchers are carrying out the study correctly. Your name will not be given to anyone. All personal information will be destroyed within 6 months of its collection. All collected data will be securely stored on password protected/encrypted computer files and locked filing cabinets at the University of Central Lancashire. The anonymised data will be used to inform teaching and future research. It will not be possible to identify any one individual from this data.

What will happen to the results of the research study?

If you want to find out the results of the study, please leave your name with Dr Awan. We will send out a brief report to you when the study is finished. We hope to publish our findings in a medical journal and present the findings at national or international conferences, so that best practice can be shared, and care can be improved. You will not be identified in any report/publication.

Who is organising and funding the research?

This research forms the basis of a post-graduate degree for Dr Hassan Awan in University of Central Lancashire School of Nursing. East Lancashire Clinical Commissioning Group funds the research studentship.

Who has reviewed the study?

The study has been reviewed by experienced UCLan academics Dr Mick Mckeown, Professor Joy Duxbury and Dr Karen Whittaker. This study has also been reviewed through the RES Committee North West- Lancaster and by the University of Central Lancashire Research Ethics Committee.

Contact for Further Information

Dr Hassan Awan

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████████████

████████

Hawan1@uclan.ac.uk

What if there is a problem?

If you have any concerns about your involvement in this research, in the first instance, raise them with Dr Awan via the email address above or 01706 253 300, or academic supervisor Dr Mckeown (mmckeown@uclan.ac.uk). If you have concerns about the way that the research

has been conducted, please contact the University Officer for Ethics (OfficeforEthics@uclan.ac.uk).

Thank you

Thank you very much for considering taking part in this study. You can have a copy of this and your signed consent form to keep should you wish to take part.

Participant Information Sheet

Making Every Contact Count (MECC) in Primary Care:

Improving Physical Health of Patients with Mental Health Problems

Invitation to participate:

You are invited to take part in a research study. Before you decide if you would like to take part, it is important to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish. Ask if there is anything that is not clear or if you would like further information.

What is the purpose of the study?

People with mental health problems are known to often have worse physical health than people without. The purpose of this study is to find out the barriers and facilitators in implementing brief interventions to improve the physical health of people with mental health problems. A brief intervention is a technique used to initiate change for an unhealthy or risk behavior such smoking, alcohol, exercise and may last a few minutes. Whilst there is a lot of research about individual interventions and their effectiveness, there is little about how a combined approach may help. The study will last a year and will involve interviews.

Why have I been invited to participate?

You have been invited because you are a primary health clinician who treats patients with mental health problems.

What will the research involve?

The research will involve an interview of up to one hour. The interview will ask you about your views and experiences of taking opportunities to address the physical health of patients with mental health problems. They will include how often you ask about physical health, smoking, alcohol and other brief interventions. Including what approaches you think work and don't work. The interview will be voice-recorded with your permission. Any recordings will be erased after the project is completed. Travel expenses will not be paid.

Do I have to take part?

No - it is entirely up to you to decide whether or not to take part. We will explain the study to you and give you this information sheet to keep. If you decide to take part we will ask you to sign a consent form to show that you have an understanding of the research and have agreed to take part. The consent form will also ask for permission to use anonymised information from the interview. You can choose not to answer questions and can leave the study at any time and without giving a reason. However, you will only be able to remove all your information up to the time anonymised data analysis is completed. A decision to leave the study, or a decision to not take part at all, will not affect the standard of care patients receive in any way.

What are the possible benefits of taking part?

There is no direct benefit to taking part although you may feel benefit from talking about your experiences. We hope that the information we get from this study will help us to understand how best to take opportunities to improve the physical health of patients with mental health problems. Hopefully the project will improve understanding of what works best.

What are the possible risks of taking part?

There are no particular risks to taking part in this study. If a person finds any part of the interview upsetting we can stop it at any time. The interviewer is a doctor and GP trainee who has worked in mental health settings and is experienced in dealing with distress.

What happens when the research study stops?

When the research study stops we will examine the information we have collected and use it to inform healthcare workers, researchers, patients and commissioners as to the best way forward.

Will my taking part in this study be kept confidential?

All information collected during the research will be kept strictly confidential. Personal data will be coded so that no individual can be recognised. We will only break confidentiality if there is a risk of harm to a person or others. We will not let anyone else have this link. After the study is published, the link will be destroyed, and then your name cannot be matched up with the information you have provided. Only members of the research team will listen to recordings and read the interviews. The information we collect may also be looked at by regulatory authorities but only to check that the researchers are carrying out the study correctly. Your name will not be given to anyone. All personal information will be destroyed within 6 months of its collection. All collected data will be securely stored on password

protected/encrypted computer files and locked filing cabinets at the University of Central Lancashire. The anonymised data will be used to inform teaching and future research. It will not be possible to identify any one individual from this data.

What will happen to the results of the research study?

If you want to find out the results of the study, please leave your name with Dr Awan. We will send out a brief report to you when the study is finished. We hope to publish our findings in a medical journal and present the findings at national or international conferences, so that best practice can be shared, and care can be improved. You will not be identified in any report/publication.

Who is organising and funding the research?

This research forms the basis of a post-graduate degree for Dr Hassan Awan in University of Central Lancashire School of Nursing. East Lancashire Clinical Commissioning Group funds the research studentship.

Who has reviewed the study?

The study has been reviewed by experienced UCLan academics Dr Mick Mckeown, Professor Joy Duxbury and Dr Karen Whittaker. This study has also been reviewed through the RES Committee North West- Lancaster and by the University of Central Lancashire Research Ethics Committee.

Contact for Further Information

Dr Hassan Awan

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Hawan1@uclan.ac.uk

What if there is a problem?

If you have any concerns about your involvement in this research, in the first instance, raise them with Dr Awan via the email address above or 01706 253 300, or academic supervisor Dr Mckeown (mmckeown@uclan.ac.uk). If you have concerns about the way that the research has been conducted, please contact the University Officer for Ethics (OfficeforEthics@uclan.ac.uk).

Thank you

Thank you very much for considering taking part in this study. You can have a copy of this and your signed consent form to keep should you wish to take part.

CONSENT FORM

Making Every Contact Count (MECC) in Primary Care:

Improving Physical Health of Patients with Mental Health Problems

Dr Hassan Awan, Lead Researcher, hawan1@uclan.ac.uk:

Please read the following statements and initial the boxes to indicate your agreement

Please initial box

I confirm that I have read and understand the information sheet, dated 19/09/16 for the above study and have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason. ☐

I agree to take part in the above study. ☐

I understand that it will not be possible to withdraw my data from the study after final analysis has been undertaken. ☐

I agree to the interview being audio recorded. ☐

I agree to the use of anonymised quotes in publications . ☐

I understand that relevant anonymised data collected during the study may be looked at by individuals from the University of Central Lancashire, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to this data. ☐

_____   _____   _____

Name of Participant   Signature   Date

_____   _____   _____

Name of Researcher   Signature   Date

Appendix J: Consent Form for Staff

University of Central Lancashire

CONSENT FORM

Making Every Contact Count (MECC) in Primary Care:

Improving Physical Health of Patients with Mental Health Problems

Dr Hassan Awan, Lead Researcher, hawan1@uclan.ac.uk:

Please read the following statements and initial the boxes to indicate your agreement

Please initial box

I confirm that I have read and understand the information sheet, dated 19/09/16 for the above study and have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason.

☐

I agree to take part in the above study.

☐

I understand that it will not be possible to withdraw my data from the study after final analysis has been undertaken.

☐

I agree to the interview being audio recorded.

☐

I agree to the use of anonymised quotes in publications .

☐

I understand that relevant anonymised data collected during the study may be looked at by individuals from the University of Central Lancashire, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to this data.

☐

_____   _____   _____

Name of Participant   Signature   Date

_____   _____   _____

Name of Researcher   Signature   Date

Topic Guide for Making Every Contact Count (MECC) in Primary Care: Improving

Physical Health of Patients with Mental Health Problems

Introduction:

Thank the interviewee for agreeing to the interview and to the recording of the interview.
Remind them of the purpose of the interview:
The purpose of this study is to find out the barriers and facilitators in implementing brief
interventions to improve the physical health of people with mental health problems.
Ask if they have any questions before the interview begins.

Demographics:
Age 30-40, 40-50, 50-60, 60+
Sex
Ethnicity
Job role

**Topics to be covered (exploring contexts, mechanisms and outcomes throughout and
testing if TTM works as candidate theory):**

Past experience of brief interventions. A brief intervention is a technique used to initiate
change for an unhealthy or risk behavior such smoking, alcohol, exercise and may last a few
minutes. To cover areas including:
Can you give me an example of a time when you received/delivered a brief intervention to a
patient with mental illness?
What brief interventions they have received/given to improve physical health (for patients
with mental health illness) e.g. smoking, alcohol, diet, exercise? Was it a combined
approach or based on a specific intervention, e.g. purely smoking?
What was given? How well given. How well they went down. How effective. How often.
What barriers were faced to making a change for physical health? Was time an issue?
Priorities in the consultation? Workload? Was it a case of seeing the clinician/patient in
crisis? Do they remember having an annual review in the last year and is this a better time
to deal with physical illness? What are the facilitators they faced? Rapport? Trust?
Continuity of care?

What went badly. Can it be counterproductive?

Ideas about best practice. To cover areas including:
Should brief interventions be given when patients presenting with mental health problems
or just at annual reviews or when seeing the doctor for something else?
Why. What are the benefits in doing this? What are the negatives? In what way should they
be given? How long should be spent on this in a GP or practice nurse or HCA consultation?

Are there specific consultations which this works and which it doesn't? Is a combined approach better or specific intervention-focused programme better?
What is the best way of implementing brief interventions? Signposting, motivational interviewing, CBT techniques.
Continuity.
Workload

Medication review- how often? Effective?

Areas of development of clinicians:
Are there any training needs for clinicians in delivery of brief interventions? Any knowledge gaps highlighted?

Clinician specific questions:
Were there different groups of patients, which reacted or would react differently to these questions? Are there different situations in one may discuss brief interventions in a consultation but not in another? Treat patients same or differently to others without a diagnosis?

Ending the interview:

Clarify and summarise main points.
Is there anything else you'd like to say?
What is the message you'd like me to really take away today?
Close the interview and thank the interviewee for their participation.

Appendix L: Example of Coding

Example of coding from clinician interviews:

Theme	Category	Code	Quote
Patient factors	Understanding	Patient understanding	ST108 from a patient perspective, we said facilitators, they need to be ready, they need to able understand what you're saying, they need to be willing to go through the journey, if they're not then, no matter how much you drag them, they're not going to come.
Consequence	Benefit of intervention	Lifestyle interventions prevent illness	ST102 The long term benefits are hopefully you're doing health promotion and therefore they won't develop whatever illnesses in the future.
Patient wellbeing	Benefit of intervention	Lifestyle interventions empower patients	ST102 I think from relating it back to the mental health I see it as empowering people to help look after their own lives, because however their treatment runs there will always be time in lives where all of us have stresses and if they have fairly simple things like exercise and looking after themselves that will help them deal with that then that can only be beneficial. So I think it's important from that point of view.
Clinician factors	Positivity	Hope	ST108 Right, ninety percent of our patients who go to [name] quit after three months she's that good, so you have to kind of emphasise on that, because it gives them hope.
Patient factors	Vulnerability	Unhealthy lifestyle far more common in this group	ST103 I mean, clearly smoking and alcohol problems are far more common in that group and I would do my best, but I wouldn't want to be too forceful.
Patient factors	Understanding	Patient understanding	ST108 from a patient perspective, we said facilitators, they need to be ready, they need to able understand what you're saying, they need to be willing to go through the journey, if they're not then, no matter how much you drag them, they're not going to come.
Clinician factors	Proactive clinician	Support motivation by champix prescription same day	We have brought in various things to try and keep up the motivation if someone goes down to (named place) and is prescribed say Champix not so much in your mental health patients although I think they are changing the guidance, if they get a prescription for Champix they bring it back to us, we have brought in a policy where it's issued there and then so you say to the patient sit down and we will get the duty doctor to do this prescription now for you so that they are not even got 24 hours to start again you want to strike while the iron is hot really that is quite a good thing.

Example of coding from patient interviews:

Theme	Category	Code	Quote
Clinician factors	Clinician communica	Non-dictatory clinician attitude	PT101: Because the more you dictate to them the more they get stubborn and not do it, in my view anyway. PT101: Because you can't dictate to people about not smoking because it's a habit, isn't it?
Clinician factors	Clinician communica	If patient priority not addressed can be negative	PT101: when I first started having trouble with my back…And they said pack up smoking, well my answer was, well how is that going to help my back? You know what I mean? I couldn't see where the two was connected…So and I did actually say, well what's the point in packing up smoking, it's not going to help my back. PT101 I: let's say if you go to see the Doctor and you've got a backache or whatever and let's say that, and you still smoke. Do you think it's the Doctors job to think about the other things as well, or to focus on your health problem, or both? P: Well focus on my health problem really.
Clinician factors	Clinician communica	Can bring up lifestyle intervention if patient priority addressed	PT101 I: And then if they deal with your back pain, it's possible that they can also talk about other things, but… P: Yeah, yeah. PT103 I: So it's really important to be listened and to be believed and I guess is there something about when you've come about something, you want to make sure that that thing is addressed before going on to something else. P: Yeah, it is properly, yes.
Clinician factors	Clinician communica	Clinicians good at explaining	PT101 I: Do you think Doctors are good at explaining or? P: Most Doctors are, yes, I think so, yes
System factors	Other services	111 inappropriately sends places	PT108 R: That is a terrible thing when it was run by doctors and nurses the system worked very well but now again they are not medically trained it is a tick box thing and we will just send you to A & E, just clogs up A & E then.