University of Wales
Trinity Saint David
BIRMINGHAM

Institute of Inner-City Learning

Birmingham Campus

BSc (Hons) Health and Social Care

DISSERTATION

Disclaimer

This document was correct at the time of publication. The Module Coordinator reserves the right to modify any statement if necessary, make variations to the content or methods of delivery of programmes of study, to discontinue programmes, or merge or combine programmes if such actions are reasonably considered to be necessary by UWTSD. Every effort will be made to keep disruption to a minimum, and to give as much notice as possible. An electronic copy of this handbook can be found on the Moodle page for the module.

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree

Signed: H. Sasaraku

Date: 27th November 2025

STATEMENT 1

This dissertation is being submitted in partial fulfilment of the requirements for the degree of BSc.

Signed: H. Sasaraku

Date: 27th November 2025

STATEMENT 2

This dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed: H. Sasaraku

Date: 27th November 2025

STATEMENT 3

I hereby give consent for my dissertation, if accepted, to be available for photocopying and for interlibrary loan, and for the title and summary to be made available to outside organisations.

Signed: H. Sasaraku

Date: 27th November 2025

STATEMENT 4

I hereby give consent for my dissertation, if accepted, to be available on the university's IT system to those who have consent to use the system.

Signed: H. Sasaraku

Date: 27th November 2025

ETHNIC DISPARITIES IN THE PREVALENCE AND MANAGEMENT OF GESTATIONAL DIABETES AMONG PREGNANT WOMEN IN THE UK:

A SYSTEMATIC REVIEW.

Hannah Serwaah Sasaraku

Student ID: 2127147

Dissertation submitted as part of the requirements for the award BSc (Hons) Health and Social Care

ACKNOWLEDGEMENTS

Reaching this final stage of my degree is a moment filled with gratitude and deep reflection.

When I left Italy on 28th December 2018 to pursue my education in the United Kingdom, I was young, afraid and stepping into an unfamiliar path. I did not know how the journey would unfold, but I carried hope and determination to build a better future. Today, I stand here knowing that every challenge I faced was worth it.

I want to begin by thanking my family. Thank you for trusting my decisions, supporting me from afar and believing in who I am becoming. Your love, prayers and encouragement gave me strength when the journey felt overwhelming, and this achievement would not have been possible without you.

I extend my heartfelt appreciation to the University and every lecturer who has contributed to my growth. I would especially like to thank Dr. Fahad Khan and Parese Ahmed, whose guidance, support and belief in my ability inspired me throughout this journey, both knowingly and unknowingly. You have played a significant role not only in my academic success but also in my confidence as a woman and a future professional.

I also want to acknowledge my friends and colleagues who supported me through long nights of study, emotional moments and seasons of responsibility. Your presence and encouragement made the difficult times easier to overcome.

Most importantly, I want to thank myself. To the version of me who fought through homesickness, loneliness and fear. To the version of me who worked difficult jobs, who cried but still kept studying, who fell yet kept falling forward. To the version of me who stayed in the United Kingdom even when returning to Italy seemed easier. Thank you. You found strength when it felt like you had none left. You believed that this moment would arrive, and today, it has. I am incredibly proud of the woman I am becoming.

I also thank my younger self, who held onto dreams even when the path felt unclear. Thank you for not giving up.

Above everything, I want to thank God. He has been my guide, my provider, and my comforter throughout this journey. His grace carried me in every moment of doubt, and His faithfulness is the reason I am here today. This achievement is a testimony of His goodness, and I know that this is only the beginning of greater things to come.

To every tear, every breakthrough and every prayer, thank you. I am grateful, I am proud and I am excited for all that lies ahead.

ABSTRACT

This dissertation explores ethnic disparities in the prevalence and management of gestational diabetes mellitus (GDM) among pregnant women in the UK. This topic is vital in health and social care because minority ethnic groups still face unequal maternal outcomes despite the universal availability of maternity services. A systematic review of UK literature was carried out using desk-based research methods. Sources were gathered through structured database searches and analysed with thematic analysis to identify patterns related to prevalence, care access, and self-management.

The results identified three main themes. The first theme showed that women from South Asian, Black African, and Black Caribbean backgrounds have significantly higher GDM rates than Caucasian women. The second theme revealed inequalities in GDM management, such as delays in follow-up care and inconsistent access to culturally sensitive support. The third theme discussed barriers related to socioeconomic status, culture, and language that hinder women's understanding and management of GDM. Limitations include reliance on secondary data and variability in study quality.

The study recommends earlier antenatal screening, culturally competent maternity care, and improved communication and health literacy support to address maternal health inequalities in the UK.

Table of Contents

Disclaimer....1

ACKNOWLEDGEMENTS....5

ABSTRACT....7

CHAPTER 1: Introduction....9

1.1 Introduction....9

1.2 Definitions and Terminology....10

Acronyms and Abbreviations....11

1.3 Rationale for Research....12

Aim:....13

Objectives:....13

CHAPTER 2 – Background Information and Analysis....14

Development of the Topic....15

Significant Historical Figures and Contributions....16

Key Theories and Concepts....16

Application of Theories....17

Critical Evaluation....18

CHAPTER 3 – Methods and Search Strategy....22

3.1 – Introduction....22

3.2 – Search Strategy....22

3.3 – Searching for Information....23

3.4 – **Research Validation**....24

3.5 - Inclusion and Exclusion Criteria....26

3.6 – Analysing Research....27

3.7 – Ethical Considerations....27

3.8 – Chapter Conclusion....28

CHAPTER 4 – Findings and Discussion....29

4.1 – Introduction 29

4.2 – Thematic Analysis 29

4.3 – Theme 1: Ethnic Disparities in the Prevalence of Gestational Diabetes Mellitus (GDM) 30

4.4 – Theme 2: Inequalities in Access to GDM Management and Care Pathways 34

4.6 – Chapter Conclusion 43

CHAPTER 5 – Conclusion and Recommendations 44

CHAPTER 6 – References and Appendices 48

6.1 – References list 48

1/3 48

6.2 – Chapter 3 References (Images / Graphs / Tables) 59

2/3 59

6.3 Appendix from Chapter 3 poster 60

CHAPTER 1: Introduction

1.1 Introduction

Gestational diabetes mellitus (GDM) is a temporary but serious form of glucose intolerance that occurs during pregnancy. As reported by the World Health Organisation (WHO, 2023), GDM can result in significant complications, such as pre-eclampsia, preterm delivery, and an elevated risk of type 2 diabetes for both the mother and the child. In the United Kingdom, around 4–5% of pregnancies are affected by this condition; however, the rates are considerably higher among ethnic minority groups. According to the National Health Service

(NHS England, 2019), these disparities persist despite ongoing efforts to improve antenatal care across all populations. Research shows that pregnant women from Black African, Black Caribbean, South Asian, and Middle Eastern backgrounds are at a higher risk of developing GDM and often receive inconsistent standards of care, as highlighted by Public Health England (PHE, 2018).

This dissertation intends to investigate ethnic disparities in the occurrence and management of GDM among pregnant women in the UK. The emphasis will be on analysing how cultural, social, economic, and systemic factors contribute to these disparities. A systematic review will be performed to assess existing literature and identify the gaps that persist in both clinical knowledge and healthcare delivery. By leveraging academic evidence, this dissertation aims to provide practical recommendations that can guide maternity services and public health policy.

The following chapter will clarify key terminology, offer background context, and outline the rationale behind the research.

1.2 Definitions and Terminology

This dissertation analyses the differences in prevalence and management of gestational diabetes mellitus (GDM) among pregnant women in the United Kingdom based on ethnicity. To enhance understanding and interest in the topic, this section outlines key terms and discusses their significance to the study.

The primary concepts central to this research include GDM, ethnic disparities, prevalence, and management, each of which is essential for the framework, focus, and interpretation of the study's results.

The World Health Organisation (WHO, 2023) defines gestational diabetes mellitus as a form of glucose intolerance that is diagnosed for the first time during pregnancy, usually in the second or third trimester. Although GDM typically resolves after delivery, it is associated with various complications, such as high birth weight, neonatal hypoglycaemia, pre-eclampsia, and an elevated risk of developing type 2 diabetes for both the mother and the child in the future. Grasping the nature of GDM is important, as it is the primary medical condition being investigated in this research.

Ethnic disparities refer to variations in health outcomes, disease prevalence, and quality of care perceived by individuals from different ethnic groups. According to NHS England (2019),

these disparities often stem from intricate interactions between systemic inequality, socioeconomic factors, cultural obstacles, and differences in service delivery. In relation to this study, the term illustrates how women from minority ethnic backgrounds may be more severely impacted by GDM and may also experience inequitable healthcare standards.

Prevalence indicates the extent to which a condition exists within a specified population. In the context of GDM, prevalence statistics help highlight which ethnic groups are most affected and the rates at which this occurs. For instance, the Office for Health Improvement and Disparities (2022) noted that GDM is more frequently diagnosed in women of Black African, South Asian, and Middle Eastern descent compared to White British women.

Management refers to the approaches used to oversee and treat GDM. This encompasses lifestyle modifications, such as changes in diet and increased physical activity, in addition to clinical strategies like blood glucose monitoring and insulin administration. The National Institute for Health and Care Excellence (NICE,2021) offers recommendations for managing GDM through evidence-based antenatal pathways designed to decrease risks for both mothers and newborns. Understanding how management varies across different ethnic groups is crucial for identifying systemic inequalities in maternal care.

Acronyms and Abbreviations

The terms listed below will be used consistently throughout the dissertation:

- NHS – National Health Service
- NICE – National Institute for Health and Care Excellence
- GDM – Gestational Diabetes Mellitus
- OHID – Office for Health Improvement and Disparities
- WHO – World Health Organisation
- PHE – Public Health England
- BME – Black and Minority Ethnic

- BDA – British Dietetic Association
- BMI – Body Mass Index
- GOV.UK – Government of the United Kingdom website

1.3 Rationale for Research

Gestational diabetes mellitus (GDM) is a rising concern in maternal health, particularly within the United Kingdom's diverse population. Although GDM can affect women of all ethnic backgrounds, existing research highlights that it is more commonly diagnosed among women from Black African, Black Caribbean, South Asian, and Middle Eastern backgrounds compared to those from White British backgrounds. These disparities highlight the need to investigate how ethnicity influences not only the prevalence of GDM but also the quality and consistency of its management. According to Public Health England (2018), women from minority ethnic groups are significantly more likely to develop GDM and are at increased risk of poor maternal outcomes.

The National Health Service England (2019) has shown several contributing factors to these inequalities, including socioeconomic deprivation, language barriers, limited access to culturally appropriate health education, and variation in healthcare provision. Despite this awareness, current healthcare strategies have not fully addressed how these social determinants of health interact with ethnicity to affect both the incidence of GDM, and the standard of care provided. Moreover, much of the existing academic literature tends to focus on either the clinical aspects of GDM or its epidemiology, rather than offering an integrated examination of both prevalence and management in ethnically diverse populations.

This dissertation seeks to bridge that gap by conducting a systematic review of UK-based studies that investigate ethnic disparities in both the prevalence and clinical management of GDM. The aim is to show patterns in diagnosis and care delivery that may inform culturally sensitive healthcare policies and contribute to more equitable maternity services for all ethnic groups in the UK.

1.4 Aim and Objectives

Aim:

The purpose of this dissertation is to investigate the ethnic differences in the occurrence and treatment of gestational diabetes mellitus (GDM) among expectant women in the United Kingdom.

This research will evaluate how variations in diagnostic and care procedures among different ethnic groups may lead to disparities in maternal health outcomes.

Objectives:

1. To assess the occurrence of GDM among various ethnic groups in the UK.
2. To examine the management of GDM among both ethnic minority and majority populations.
3. To recognise social, cultural, and structural factors that contribute to disparities in GDM care.
4. To offer recommendations aimed at promoting equitable and culturally sensitive maternity care services.

1.5 Conclusion

This chapter has highlighted the essential components of the dissertation, starting with an overview of gestational diabetes mellitus (GDM) and its unequal effects on women from ethnic minority groups in the UK. Important definitions and terminology have been defined to maintain consistency throughout the study. The rationale for the research has been examined concerning health disparities, and the aim and objectives have been identified. The following chapter will conduct a critical review of the existing literature regarding the prevalence and management of GDM among various ethnic groups.

CHAPTER 2 – Background Information and Analysis

2.1 Introduction

This chapter provides the crucial background needed to comprehend the wider context of this dissertation, which examines ethnic disparities in the occurrence and treatment of gestational diabetes mellitus (GDM) within the United Kingdom. By establishing a foundational understanding through historical, theoretical, international, and national perspectives, this chapter seeks to uncover how cultural, policy-related, and systemic factors have influenced healthcare responses to GDM, especially among ethnic minority groups.

The aim of this chapter is to extend beyond singular clinical observations and investigate how broader frameworks, including historical events, public health initiatives, theoretical models of inequality, and international benchmarks have shaped contemporary maternal care systems.

It also examines how significant organisations and national health guidelines have progressed in their methods for diagnosing and managing GDM.

By providing this background, the chapter ensures a comprehensive understanding of the topic before moving into the method and analysis phases. The information contained here will aid in a critical evaluation of current care practices and guide the innovation of equitable, culturally aware recommendations for maternal health.

2.2 Historical Background

Development of the Topic

Gestational diabetes mellitus (GDM) was first identified as a medical condition in the mid-20th century, characterised by glucose intolerance arising during pregnancy, which usually resolves after childbirth (American Diabetes Association, 1979). Over the years, the diagnostic criteria and awareness surrounding GDM have greatly advanced, especially as studies have revealed the short- and long-term risks it poses for both mothers and their infants. Initially, there was a lack of global consistency in the definition and diagnosis of GDM, leading to varying maternal health outcomes across different healthcare systems (Metzger et al., 1998).

In the United Kingdom, a significant shift occurred with the release of guidelines by the National Institute for Health and Care Excellence (NICE, 2008), which introduced standardised recommendations for the screening, diagnosis, and management of GDM. These guidelines were designed to mitigate complications such as macrosomia, pre-eclampsia, and perinatal mortality. Over time, NICE (2020) revised these protocols to incorporate emerging evidence and to better assist women who are at greater risk of developing GDM.

As national health records became more thorough, data began to uncover disproportionate rates of GDM among women from ethnic minority backgrounds. This increasing awareness prompted research into how social determinants like ethnicity, deprivation, and access to culturally appropriate care were impacting maternal health outcomes. According to the National Health Service (NHS, 2019), the prevalence of GDM is significantly higher in women of South Asian, Black African, and Black Caribbean descent compared to those from White ethnic backgrounds. This underscored the necessity for more customised public health strategies and fair healthcare delivery.

Significant Historical Figures and Contributions

Numerous global and national organisations have made essential contributions to the understanding of GDM and its connection to ethnicity. A particularly influential study was the Hyperglycaemia and Adverse Pregnancy Outcomes (HAPO) study, which established a definitive association between maternal blood glucose levels and adverse outcomes for newborns. This research directly affected the diagnostic criteria later adopted by the World Health Organisation (WHO, 2013), leading to a more consistent approach across nations.

In the UK, Public Health England (PHE, 2018) has been instrumental in emphasising disparities in maternal health, proving that women from ethnic minority backgrounds are at a higher risk of encountering negative outcomes during pregnancy, including complications related to GDM. Their findings informed future national strategies aimed at reducing inequality.

The Office for Health Improvement and Disparities (OHID, 2021), alongside NHS England, has continued to prioritise this issue by incorporating culturally suitable practices and improving data collection regarding maternal ethnicity and outcomes. These advancements establish the historical groundwork for this dissertation's concentration on ethnic disparities in GDM care and highlight the need for additional research and policy reform.

2.3 Theoretical Background

Key Theories and Concepts

The Social Determinants of Health (SDH), as described by the World Health Organisation (WHO, 2023), refer to the circumstances under which people are born, develop, live, work, and age. These determinants including income, education, housing, and healthcare access affect an individual's susceptibility to conditions like GDM. NHS England (2023) has incorporated the SDH model to elucidate the reasons why women from ethnic minority groups are disproportionately confronted with maternal health issues, as they frequently encounter structural obstacles that hinder timely screening and treatment.

Intersectionality, a concept introduced by Crenshaw (1989), serves as a theoretical framework for understanding how different facets of a person's identity, such as ethnicity, gender, class, and immigration status combine to form unique experiences of oppression or privilege. This

concept helps clarify the compounded difficulties that ethnic minority women face in accessing GDM care, rather than examining identity factors in isolation. Salway et al. (2016) pointed out that such intersections lead to cumulative disadvantages, including miscommunication, language difficulties, and cultural disconnects between patients and health providers.

The Health Belief Model (HBM), created by Rosenstock (1974), investigates the psychological factors influencing health behaviour. It suggests that individuals are more inclined to undertake preventative health measures if they perceive themselves at risk for a condition, regard the condition as serious, believe the advantages of taking action outweigh the obstacles, and own the self-efficacy to act. Public Health England (2018) remarked that some women from ethnic minority communities may refrain from GDM screening due to low perceived risk or cultural stigma, making the HBM a valuable framework for comprehending behavioural delays.

Cultural Competence in healthcare refers to the capacity of professionals to provide care that honours and addresses the cultural and linguistic needs of varied populations. As noted by the Office for Health Improvement and Disparities (OHID, 2021), culturally competent care enhances communication, adherence to treatment, and overall outcomes, particularly in managing GDM. NHS England (2023) has backed initiatives like interpreter services and cultural awareness training to boost interactions with ethnic minority patients.

Application of Theories

These theories have been utilised in diverse research and practical settings. The SDH framework informed NHS England's Maternity Transformation Programme, which pinpointed housing, deprivation, and healthcare access as critical factors in maternal health inequalities. Intersectionality has been extensively employed in qualitative studies to investigate how racism, migration, and gender norms intersect in maternity care (Salway et al., 2016). The HBM has shaped behavioural interventions aimed at ethnic minority groups, assisting in the development of communication strategies on diet, screening, and treatment compliance (Guariguata et al., 2019). Cultural competence principles have influenced NHS policy reforms, such as integrating diversity training into midwifery education and hiring community link workers.

Critical Evaluation

Although beneficial, each theory has its drawbacks. The SDH framework may oversimplify the intricate individual experiences by concentrating mainly on structural factors. While Intersectionality is a strong theoretical tool, it often proves difficult to translate into measurable policies or quantitative findings. The HBM has faced criticism for placing excessive focus on individual accountability and neglecting broader systemic barriers like poverty and discrimination. If applied superficially, cultural competence may degenerate into a tokenistic exercise that fails to confront underlying institutional inequalities (Truong et al., 2014).

Despite these limitations, combining these frameworks produces a multifaceted approach that is vital for understanding and tackling GDM disparities.

Collectively, they offer a comprehensive perspective on how social systems, personal behaviours, and institutional practices intersect to influence maternal health outcomes in ethnically diverse populations.

2.4 International Context

Gestational diabetes mellitus (GDM) is a global public health concern with differing prevalence rates, risk factors, and management methods in various countries. The International Diabetes Federation (IDF, 2020) indicates that around 16.7% of global live births experience some type of hyperglycaemia during pregnancy, with 84% of these instances linked to GDM. The frequency of GDM is especially high in low- and middle-income nations, where access to screening and postnatal care is often restricted.

In Canada, national guidelines stress the importance of early screening and culturally appropriate care for populations at risk. For instance, the Public Health Agency of Canada (PHAC, 2021) recognises Indigenous, South Asian, and African-Caribbean women as high-risk groups and advocates for community-based interventions to tackle health disparities. Similarly, Australia's National Diabetes Services Scheme includes culturally adapted dietary guidance and interpreters for immigrant communities, enhancing patient compliance and health outcomes (Diabetes Australia, 2022).

Conversely, nations such as India and Pakistan encounter considerable difficulties due to a lack of awareness, inconsistent diagnostic standards, and insufficient follow-up care.

Research by Bhavadharini et al. (2018) revealed that many women in South Asia do not undergo postpartum glucose testing, elevating their long-term risk of developing type 2 diabetes.

The World Health Organisation (WHO, 2023) promotes universal screening for GDM during antenatal visits and the inclusion of GDM policies in maternal health programs. Nevertheless, the execution of these policies differs significantly based on available resources and political commitment.

International collaboration initiatives, like the FIGO (International Federation of Gynaecology and Obstetrics) GDM Initiative, bolster global efforts to standardise diagnosis and enhance maternal health outcomes across various contexts (FIGO, 2019). These global models offer valuable perspectives that can inform and improve the UK's strategy for addressing ethnic disparities in GDM management.

2.5 National/Local UK Context

In the United Kingdom, gestational diabetes mellitus (GDM) has received increasing attention because of its growing prevalence and its connection to health disparities. The National Health Service (NHS England, 2023) acknowledges GDM as an escalating issue within maternity care, especially among women from ethnic minority backgrounds. Current estimates indicate that approximately 5% of pregnancies in the UK are impacted by GDM, with elevated rates observed in women of South Asian, Black African, and Middle Eastern descent (NHS Digital, 2022). These inequalities have led to a heightened national emphasis on fair antenatal care and preventive measures.

The National Institute for Health and Care Excellence (NICE, 2015) released clinical recommendations for identifying and managing GDM, advising on early screening for women at risk who have a high body mass index (BMI), a family history of diabetes, or belong to ethnic groups with a higher susceptibility. Although these guidelines aim to create a uniform standard of care, their application across different trusts has not always been uniform. Research conducted by Knight et al. (2021) reveals discrepancies in screening rates, diagnostic standards, and postnatal follow-up, particularly in areas with greater ethnic diversity and economic disadvantage.

The NHS Long Term Plan (NHS England, 2019) commits to alleviating health inequalities, which includes enhancing maternity services through the use of digital health records, custom care plans, and improved continuity of care models. Nevertheless, reports from the Care Quality Commission (CQC, 2021) indicate that in spite of policy advancements, women from ethnic minority groups still experience lower satisfaction and trust levels in maternity services compared to their White British counterparts.

Actions taken to tackle these issues have involved the development of maternity equity and equality action plans across Integrated Care Systems (ICSs), aiming to align service delivery more effectively with the needs of diverse communities (Department of Health and Social Care, 2023). Additionally, targeted funding has facilitated the hiring of community midwives and healthcare advocates from minority communities to foster cultural trust and engagement.

Overall, the UK has made notable advancements in recognising and addressing the challenges related to GDM. However, further enhancements in service delivery, cultural competence training, and care standardisation are crucial to achieving equitable outcomes across all ethnic groups.

2.6 Conclusion

This chapter explored the background of ethnic disparities in the prevalence and management of gestational diabetes mellitus (GDM) in the UK. It clarified key terms and introduced core theories such as the Social Determinants of Health, Health Belief Model, Intersectionality, and Cultural Competence, to offer a holistic view of the issue from structural, behavioural, and cultural standpoints. Guidance from the National Institute for Health and Care Excellence (NICE, 2015) and NHS England (2019), along with international practices, provided wider policy perspectives. This framework sets the stage for the next chapter, which will describe the method, including the systematic review design and the processes for evidence selection and analysis to meet the research aims.

CHAPTER 3 – Methods and Search Strategy

3.1 – Introduction

Purpose of the Chapter and Connection

This chapter outlines the methods used to conduct this dissertation, which adopted a desk-based, secondary research approach to examine ethnic disparities in the prevalence and management of gestational diabetes mellitus (GDM) in the United Kingdom. It expands on the Academic Methods Poster (**Appendix A**) by providing a detailed explanation of how relevant literature was identified, selected, and analysed. The chapter describes the search strategy, source validation, inclusion and exclusion criteria, and thematic analysis process used to ensure reliability and relevance. These methods were essential in generating the findings presented in Chapter 4 and supporting the research aim of exploring unequal maternal health outcomes across ethnic groups.

3.2 – Search Strategy

Developing Keywords:

Keywords were chosen based on the research topic and population being investigated. These included:

- Gestational diabetes mellitus
- GDM
- Ethnic disparities
- Minority ethnic women
- Maternal health inequalities
- South Asian women
- Black African women
- Black Caribbean women
- Access to care in the UK

Boolean Operators:

Boolean operators were used to refine and combine search terms effectively:

- AND (to connect terms, for example: GDM AND ethnic minorities)
- OR (to expand search terms, for example: South Asian OR Black African)
- NOT (used cautiously to exclude unrelated results)

Structured Search Plan:

To locate suitable sources for this research, the process included:

- Key terms used included: Gestational Diabetes, Ethnic Disparities, Minority Women, UK. (*O.2 Search Strategy, Appendix B*)
- Searches conducted on: Google Scholar, PubMed, NHS Digital and UWTSD Library Search. (*O.3 Searching for Information, Appendix B)*
- Filters applied to limit results to recent literature and English language publications.
- Boolean operators AND, OR and NOT were used to combine and refine search terms (*O.2 Search Strategy, Appendix B)*
- The research used secondary data only, and therefore no direct contact was made with human participants (*O.8 Ethical Considerations, Appendix E)*
- Final selected studies were included in the analysis and recorded in the (0.5 Results *Summary Table Appendix A*)

3.3– Searching for Information

These databases were chosen because:

- PubMed is reliable and provides trusted medical research;
- Google Scholar gives access to a wide range of studies;
- NHS Digital includes official UK healthcare reports;
- UWTSD Library Search offers full access to academic journals;

These sources are all credible and suitable for finding accurate information about gestational diabetes and health inequalities in the UK.

Using Filters:

Filters were applied to narrow down search results and find the most relevant studies:

- Peer-reviewed journal filter used to ensure academic reliability (*O2 Search Strategy, Appendix B*).
- Date range filter used to include recent and up-to-date evidence.
- English language filter applied so articles could be clearly understood.
- UK-based studies selected to match the research aim.

Search Process:

During the search, adjustments were made to improve the quality of results:

- Search terms were revised when too many unrelated articles appeared
- Extra keywords were added to make searches more specific
- A source tracking table was used to record useful studies
- Final included studies are shown in the Results Summary Table (Appendix A)

3.4 – Research Validation

Skimming Techniques:

- Title: to see if it focused on GDM and ethnic inequalities.
- Abstract: to check if the study answered the research aim.
- Source type: peer-reviewed journals and trusted organisations were chosen (Appendix D).
- Introduction: to understand the purpose of the research.
- Publication date: recent studies were prioritised to keep information up to date.
- Conclusion: to see if the findings were useful.

These quick checks showed the article was useful and reliable, then the full text was read.

Sources that lacked good quality or did not match the topic were rejected.

CRAAP Test Application:

The CRAAP test was used to check the quality of each source:

- C: Currency

  Checked the year to make sure the information was recent and up to date.

- R: Relevance

  I made sure the study matched my topic on GDM and ethnic groups.

- A: Authority

  Checked if the authors were trusted and the journal was recognised.

- A: Accuracy

  The information needed to be supported by real evidence or data.

- P: Purpose

  The reason for the research was reviewed to ensure it was impartial and written for an academic purpose.

Some articles did not pass every point, but the most important checks were currency, relevance and authority for this dissertation.

Decision-Making:

To decide if a source was reliable and suitable, I used a quick example approach:

- If an article was contemporary, peer-reviewed, and written by a trusted organisation like NHS or Public Health England.

Example: A study published in 2023 about ethnic inequalities in GDM was included because it was new, UK-focused, and supported by real data.

- Another study was excluded because it was older than 10 years and did not focus on UK women.

Only studies that were relevant, and helpful to the research aim were kept.

3.5- Inclusion and Exclusion Criteria

Inclusion Criteria:

To make sure the review only used suitable studies, clear criteria were applied:

- Studies published within the last 10 years.
- English language.
- Focus on GDM among different ethnic groups.
- UK-based research.
- Peer-reviewed or official health report (*Appendix C*).

Exclusion Criteria:

- Research older than 10 years.
- Not set in the UK.
- Did not focus on ethnicity or GDM.
- Unreliable sources such as blogs or opinion piece (*Appendix C*).

These criteria helped to ensure the evidence used was current, relevant, and high-quality.

3.6 – Analysing Research

Thematic Coding Approach:

To analyse the information, a simple thematic coding method was used:

- Keywords and ideas were highlighted in each article.
- Similar ideas were grouped together into classifications.
- The patterns that arose most often were kept and labelled as themes.

This helped to organise the findings and clearly show how ethnic inequalities affect GDM.

Developing Themes and organisation

After reviewing the full-text studies, common ideas were grouped together to form themes. This was done by comparing what each article said about GDM and ethnic inequalities. When the same cases occurred in several studies, they were organised into key themes that link directly to the research aim. The final themes developed were:

1. Ethnic Disparities in the Prevalence of Gestational Diabetes Mellitus (GDM)
2. Inequalities in Access to GDM Management and Care Pathways
3. Socioeconomic, Cultural and Linguistic Barriers Influencing GDM Experiences

These themes were supported by the evidence shown in the Results Summary Table (*Appendix A*) and were later explained in detail in Chapter 4.

3.7 – Ethical Considerations

- This research only used secondary data, so no contact with participants was needed
- All sources were publicly available and accessed legally (*Appendix E*)
- Information was used responsibly and not switched or misinterpreted.

- All authors were cited correctly using Harvard referencing to avoid plagiarism (*Appendix E*)
- No private or personal patient information was collected.

These steps helped ensure the research was carried out in an ethical and respectful way.

3.8 – Chapter Conclusion

This chapter summarised the main steps involved in locating, evaluating, and analysing the research underlying this dissertation. A systematic search strategy was employed using reputable academic databases, with clear inclusion and exclusion criteria to ensure selection of relevant, high-quality evidence. The CRAAP Test and skimming techniques helped verify the reliability of each source. A thematic coding method then organised the findings into three central themes that directly correspond to the research objective. These procedures also facilitated the creation of the Academic Methodology Poster included in this dissertation. Chapter 4 will now present the analysis results and explore each theme in detail concerning the research question.

CHAPTER 4 – Findings and Discussion

4.1 – Introduction

This chapter outlines the findings from the systematic review and critically examines the role of ethnicity in the prevalence and management of gestational diabetes mellitus (GDM) in pregnant women in the United Kingdom. The analysis is structured around themes that emerged from the reviewed literature, as developed through the coding and thematic framework proven in Chapter 3. The findings are discussed in relation to the aims and objectives of the research, which are centred on identifying disparities in the occurrence and treatment of GDM among ethnic minority populations. Evidence from national guidelines, public health reports, and epidemiological studies is integrated to investigate trends, inequalities, and systemic challenges that impact maternal health outcomes in the UK.

4.2 – Thematic Analysis

According to Braun and Clarke (2006), thematic analysis is a qualitative approach aimed at identifying, organising, and interpreting patterns within data to fulfil a specific research aim. It provides a flexible yet robust method that facilitates the exploration of complex issues across various sources. This method was chosen for the current systematic review because of the diverse nature of the included evidence, which made up national guidelines, epidemiological data, and public health reports addressing ethnic disparities in gestational diabetes mellitus (GDM) in the United Kingdom.

The coding process described in Chapter 3 involved extracting significant findings from each study reviewed and categorising recurring themes related to ethnicity, prevalence, management, and barriers to care. These findings were synthesised into a structured Results Summary and Coding Table, found in *Appendix A*, which aids in ensuring transparency and traceability within the analytical process. From the coding phase, several consistent trends were pinpointed in the literature, such as elevated GDM rates among ethnic minority populations, unequal access to clinical interventions, and the impact of socioeconomic and cultural factors on health outcomes.

These trends were further refined into three analytical themes introduced in this chapter, each closely linked to the aims and objectives of this dissertation.

4.3 – Theme 1: Ethnic Disparities in the Prevalence of Gestational Diabetes Mellitus (GDM)

Definition

This topic explores the unequal occurrence of gestational diabetes mellitus (GDM) among pregnant women from various ethnic backgrounds in the United Kingdom. Numerous studies have shown that women belonging to ethnic minority groups are considerably more likely to experience GDM compared to caucasian women, who are often utilised as the reference group in maternity research in the UK (NICE,2015). Consequently, this theme aims to understand the degree of these disparities and the factors influencing them.

Background Information

Gestational Diabetes Mellitus (GDM) remains a significant public health issue due to its links with negative outcomes for both mothers and newborns, such as pre-eclampsia, the progression to type 2 diabetes after childbirth, and macrosomia (WHO, 2023). Although the rates of GDM are increasing across various population groups, research consistently indicates that ethnic minority communities in the UK bear a disproportionate burden. Women of South Asian, Black African, Black Caribbean, and Middle Eastern descent have been repeatedly found to be at a higher risk for developing GDM (Yuen et al., 2018). These inequalities are well documented and highlight broader disparities entrenched in the UK health system and society.

Impact on Research Question

This theme directly supports Objective 1 outlined in Chapter 1, which is to evaluate the occurrence of GDM among different ethnic groups in the United Kingdom. Establishing the existence and scale of disparities in GDM prevalence is essential for developing interventions that can target the most affected communities and for understanding how inequalities later appear in clinical management, which will be discussed in the next theme.

Statistical Information

An increasing amount of epidemiological research reveals a distinct and alarming trend of ethnic disparities in the occurrence of gestational diabetes mellitus (GDM) throughout the United Kingdom (Yuen et al., 2018). National maternity data report that women of South Asian descent face a significantly higher likelihood of developing GDM compared with women of White British ethnicity (Farrar et al., 2015). Higher GDM prevalence has also been observed among pregnant women from Pakistani, Indian and Bangladeshi backgrounds when compared with the White British population (Garcia et al., 2021). Women of African heritage, including those from Somali and Nigerian communities, have similarly demonstrated increased GDM diagnoses relative to White British women (Nishikawa et al., 2017). Although improvements have been made in antenatal screening and clinical awareness, these disparities remain unchanged, suggesting that broader systemic, social and cultural inequalities continue to influence risk factors and maternal health outcomes (NICE, 2015).

Theories, Policies, and Legislation

The theoretical framework of Social Determinants of Health (SDH) is valuable for comprehending the reasons why women from minority ethnic groups face elevated rates of gestational diabetes mellitus (GDM) in the United Kingdom (Marmot et al., 2020). This framework, supported by the World Health Organisation, suggests that health outcomes are influenced more by economic, social, and cultural contexts than by biological factors alone (WHO, 2021). When examining GDM through this lens, it reveals how differences in education, income, language access, and healthcare availability lead to greater vulnerability.

National guidelines acknowledge these disparities. The National Institute for Health and Care Excellence identifies women from minority ethnic backgrounds as a clinical risk factor for GDM and advises early screening and closer monitoring for these individuals (NICE, 2020). NHS England (2019) underscores the necessity of minimising discrepancies in antenatal services across regions to guarantee equal access to care. Nonetheless, women from minority ethnic backgrounds are not uniformly receiving early risk assessments or interventions tailored to their cultural needs, demonstrating that gaps still exist between national standards and local execution (Marmot et al., 2020).

Implications Positive and Negative

According to Mistry et al. (2021), gestational diabetes mellitus (GDM) substantially increases the risk of adverse pregnancy outcomes such as pre-eclampsia, macrosomia and neonatal complications for both mother and baby. The increased prevalence of GDM among women from minority ethnic backgrounds therefore results in a disproportionate burden of these complications, with high-risk ethnicities experiencing poorer pregnancy outcomes than low-risk groups (Filardi et al., 2022). Harrison et al. (2025) further show that women from minority ethnic communities in England are more likely to report negative childbirth experiences and lower satisfaction with maternity care, suggesting that this unequal distribution of risk can heighten anxiety and pressure during pregnancy and birth.

Beyond pregnancy, women with a history of GDM are almost ten times more likely to progress to type 2 diabetes than those with normoglycemic pregnancies (Vounzoulaki et al., 2020). This long-term risk also increases demand on primary care and chronic disease services, particularly in communities with higher GDM prevalence (McMillan et al., 2018).

Despite these challenges, several studies suggest that early, structured interventions can reduce negative outcomes when disparities are recognised and addressed. Dubois and Giroux (2025) found that non-pharmacological interventions such as tailored diet, physical activity and lifestyle counselling improve glycemic control and help prevent GDM-related complications. Similarly, a randomised controlled trial by Chahed et al. (2022) demonstrated that a tailored self-care education programme for women with GDM improved both maternal and neonatal outcomes compared with usual care. Building on this, Jones et al. (2024) report that personalised and culturally tailored mobile applications can support adherence to

glycaemic and nutrition plans among women from diverse ethnic backgrounds, highlighting the potential for technology-enabled, culturally responsive care to promote greater health equity in the United Kingdom.

Examples from the Articles

Recent nationwide UK research confirms that minority-ethnic women are significantly more prone to developing gestational diabetes mellitus (GDM) than White British women (Saldanha et al., 2024). A large retrospective study in London found higher GDM rates among pregnant women of South Asian, Black African, and Middle Eastern backgrounds, often due to delayed antenatal booking and lower early screening participation (Rahman et al., 2023). Another study showed that Pakistani and Bangladeshi women consistently had some of the highest GDM rates, highlighting ethnic disparities in prevalence (Khan et al., 2022). Qualitative interviews with minority-ethnic women reveal that language barriers, cultural misunderstandings, and perceived discrimination in maternity services lead to late engagement with antenatal care, increasing the risk at diagnosis (Singh et al., 2023). Overall, these findings confirm that ethnicity is a key factor in GDM risk in the UK and emphasise the need for culturally sensitive, accessible maternity care (Patel et al., 2024).

Connections to Other Themes

Theme 1 has shown that women from minority ethnic backgrounds in the United Kingdom are disproportionately impacted by GDM, highlighting that inequality starts early in the pregnancy pathway. These differences in prevalence directly affect the subsequent stage of care, which is addressed in Theme 2, where variations in GDM management and access to clinical support are analysed. Women who enter antenatal services already at higher risk need timely and culturally appropriate care, meaning any inequalities in access or treatment delivery can further exacerbate the disadvantages outlined in Theme 1.

Additionally, there is a significant link with Theme 3, which examines how socioeconomic, cultural, and linguistic obstacles contribute to both increased prevalence and limited access to care. Many of the same systemic issues identified in this theme, such as delays in booking and communication barriers, not only heighten the risk of developing GDM but also hinder

women from receiving the necessary monitoring and interventions after a diagnosis. As a result, the themes intersect and collectively illustrate that ethnic health disparities in GDM are not isolated problems but rather interrelated challenges that evolve throughout the entire maternity care process.

4.4 – Theme 2: Inequalities in Access to GDM Management and Care Pathways

Definition

This theme explores the variations in access to gestational diabetes mellitus (GDM) management services among different ethnic groups in the United Kingdom. After diagnosis, women need ongoing clinical support such as blood glucose monitoring, necessary medications, and regular antenatal check-ups to reduce risks for both the mother and baby (Eastwood et al., 2023). However, studies indicate that women from minority ethnic backgrounds are less inclined to receive prompt follow-up care, proper nutritional advice, or participate in postnatal diabetes screening compared to women of White British ethnicity (Vijayakumar et al., 2022). These differences may be affected by issues related to communication, cultural beliefs about pregnancy, prior encounters with healthcare systems, and the level of trust in medical professionals (Chin et al., 2023). Consequently, this theme emphasises how inequalities persist beyond the point of diagnosis and how uneven service provision contributes to ongoing disparities in maternal outcomes among various ethnic groups in the UK (Desai et al., 2021).

Background Information

Once gestational diabetes mellitus (GDM) is diagnosed, effective management is crucial to reduce risks such as hypertensive disorders, caesarean delivery and neonatal complications (Vounzoulaki et al., 2020). Standard care involves regular blood glucose checks, nutritional counselling, and evaluating the need for medication or insulin therapy (McIntyre et al., 2019). However, evidence indicates that women from minority ethnic backgrounds often face less continuity of care and reduced access to culturally appropriate dietary advice compared to White British women (Webb et al., 2022).

Communication obstacles, such as limited health literacy and language barriers, can further impair understanding of medical guidance and hinder glycemic control (Patel et al., 2023). As a result, disparities in service access and communication quality lead to increased clinical risks and ongoing inequalities in pregnancy outcomes among different ethnic groups in the UK (Thomas et al., 2021).

Impact on Research Question

This theme plays a crucial role in the research question regarding the impact of ethnic disparities on the occurrence and management of GDM in the UK. While the first theme indicated that the likelihood of developing GDM is unevenly distributed, this theme illustrates that inequality persists during the management phase (Khan et al., 2022). This is significant because adequate clinical support is vital for preventing complications and ensuring positive outcomes for both the mother and the baby (Kim et al., 2020). When women who are already at increased risk experience difficulties in accessing consistent glucose monitoring, culturally appropriate dietary guidance or ongoing professional support, their vulnerability rises further (Ali et al., 2023). As a result, disparities in service provision reinforce and widen pre-existing health inequalities (Osei-Kwakye et al., 2021). By demonstrating that unequal management exacerbates existing risks, this theme directly and critically contributes to addressing the dissertation's overall objectives.

Statistical Information

Recent reviews of maternity care confirm significant disparities in the access and delivery of GDM management among different ethnic groups in the United Kingdom (NHS England, 2021). Evidence indicates that women from Black and Asian ethnic backgrounds are more likely to book their first antenatal appointment after 12 weeks of gestation, which can delay early screening and timely GDM care planning (Cresswell et al., 2013). Additionally, participation in antenatal education and dietary support programmes has been shown to be lower among minority ethnic women, often due to communication challenges and limited provision of culturally appropriate advice (Redshaw and Heikkilä, 2010). National evaluations further highlight inconsistencies in postnatal follow-up, with many women not returning for

recommended glucose testing after a pregnancy affected by GDM, which is an ongoing challenge in multi-ethnic NHS settings (Daly et al., 2018). These findings demonstrate that disparities in the maternity care pathway persist throughout the entire management process and are not limited to a single point of care (Rowe et al., 2023).

Theories, Policies, and Legislation

According to Campinha-Bacote (2002), the idea of culturally competent care stresses that healthcare services should honour and respond to an individual's cultural values, language requirements, and health beliefs. When maternity services fail to incorporate these principles, women from minority ethnic backgrounds may find it challenging to fully engage in treatment plans, such as dietary changes and consistent blood glucose monitoring, which can lead to worse clinical outcomes (Almeida et al., 2022).

Policy development in England have recognised the need to address these concerns more systematically. The NHS Long Term Plan outlines the necessity to enhance maternity experiences for underserved groups by increasing continuity of carer models and bolstering support for families at higher clinical risk (NHS England, 2021). However, studies indicate that these goals have not yet been completely realised. Watson et al. (2022) found considerable differences in the availability of culturally sensitive diabetes education and interpreter services, resulting in varied management support across different regions. NICE guidelines additionally advocate for personalised nutritional counselling and frequent follow-ups for women diagnosed with GDM, but the implementation of these recommendations remains inconsistent and does not always address the cultural or linguistic needs of diverse communities (NICE, 2020). Consequently, the disparity between national policy and local practice continues to perpetuate inequalities in GDM management (Rowe et al., 2023).

Implications

Differences in GDM management significantly impact women's confidence and trust in maternity care. When treatment plans are unclear or don't consider cultural food habits, women may feel misunderstood or struggle to follow medical advice, leading to poorer glycemic control and feelings of frustration or isolation (Almeida et al., 2022). These negative experiences can decrease adherence to glucose monitoring and deter women from seeking help when needed (Singh et al., 2023).

Inequities in management also affect engagement with future care. Women who feel unsupported during pregnancy are less likely to attend postnatal diabetes screening and may delay accessing maternity services in future pregnancies, perpetuating long-term disadvantage cycles (Jones & Khan, 2021). This is especially relevant to Theme 1, as women already at higher clinical risk might lack proper guidance after diagnosis, increasing inequality over time.

However, research shows that targeted management support can help reduce disparities. Culturally tailored dietary counselling, consistent follow-ups with trusted healthcare providers, and access to interpreter services have been shown to improve understanding of treatment and maternal satisfaction (Rahman et al., 2024). Thus, addressing inequalities at the management stage is vital for improving both clinical outcomes and emotional well-being, as well as the overall maternity experience.

Examples from Your Articles

The Results Summary Table in Chapter 3 highlights a substantial body of research pointing to inequalities in GDM management related to ethnicity and healthcare access. Broad reviews of maternity services in England suggest that women from ethnic minority backgrounds often face barriers in early antenatal booking and access to culturally responsive maternal care (Cresswell et al., 2013).

National guidance, such as that provided by NICE, recommends personalised management plans, regular monitoring, and follow-up for all women with gestational diabetes (NICE, 2020). Nevertheless, empirical studies show that implementation of these guidelines varies across regions and demographic groups, raising concern that not all women, especially those from minority ethnic communities, receive the same standard of follow-up care (Almeida et al., 2022). Some health inequality reports also document lower satisfaction levels among ethnic minority women regarding maternity services, highlighting communication, cultural sensitivity and equity of care as ongoing challenges (Redshaw and Heikkilä, 2010). Taken together, this evidence suggests that ethnic disparities in GDM may extend beyond incidence to include access to comprehensive management and supportive care, underlining the critical need for equity-focused policy implementation and culturally competent care.

Connections to Other Themes

Theme 2 builds on Theme 1 by showing that inequality persists even after a GDM diagnosis. While Theme 1 revealed that women from minority ethnic groups are more prone to develop

GDM, this theme emphasises how those already at higher risk face additional disadvantages when accessing management options that lack consistency, support, or cultural sensitivity. Consequently, Theme 2 not only affirms the previously identified vulnerability but also illustrates how disparities grow and deepen throughout the maternity care process.

This theme also overlaps with Theme 3, which explores broader socioeconomic, cultural, and linguistic barriers affecting women's engagement with maternity services. Many issues identified in Theme 2, such as limited understanding of medical advice, missed follow-up visits, and communication difficulties with healthcare providers; are influenced by the structural factors discussed in Theme 3. Therefore, Theme 2 serves as a vital link between the higher clinical risk described in Theme 1 and the social conditions that enable or hinder access to quality care outlined in Theme 3.

Together, these themes show that disparities in GDM are interconnected and span multiple stages of pregnancy care, from the risk of developing the condition to the support received post-diagnosis and the personal and systemic barriers affecting women's participation. This layered relationship underscores the need for targeted improvements across the entire care pathway, rather than focusing on a single aspect.

4.5– Theme 3: Socioeconomic, Cultural and Linguistic Barriers Influencing GDM Experiences

Definition

This theme examines how social and cultural factors impact a woman's ability to manage gestational diabetes mellitus (GDM). Economic issues like low income, job instability, and limited transport can hinder attendance at appointments or buying recommended foods (Kapaya et al., 2021). Cultural beliefs about pregnancy and illness may also influence how women interpret medical advice and decide on dietary or treatment options (Greenhalgh et al., 2015). Additionally, language barriers can restrict comprehension of complex health information, making self-management more challenging and reducing confidence in communicating with healthcare providers (O'Reilly et al., 2018). Overall, this theme explores how these factors can either support or hinder women's participation in GDM care.

Background Information

According to Marmot et al., (2020), social disadvantage significantly influences how women manage health conditions during pregnancy, especially those requiring continuous self-care such as GDM. Women who experience financial insecurity or unstable employment may find it challenging to prioritise medical appointments and dietary changes while meeting basic daily needs (Kapaya et al., 2021). Limited access to transportation can further restrict attendance to antenatal clinics where glucose monitoring and professional guidance are provided (Rowe et al., 2022). Cultural expectations surrounding food and family roles may also make it difficult for women to adapt eating habits, particularly when traditional meals consist of high-carbohydrate options (Greenhalgh et al., 2015). Language barriers contribute additional strain when women struggle to understand clinical information or feel unable to ask questions to clarify their care instructions (O'Reilly et al., 2018). Together, these factors highlight how wider circumstances can shape the experiences of managing GDM and engagement with maternity services.

Impact on Research Question

Nazar et al. (2022), states that inequalities in maternal health are intertwined with the social environments influencing women's healthcare decisions. For the research question, this viewpoint is vital because it connects variations in GDM outcomes to the circumstances that hinder women from engaging with care after diagnosis. O'Connor and Brown (2021), noted that clinical disparities are often worsened by the daily pressures women face, which explains why prevalence alone cannot account for outcome gaps seen in Theme 1. The social and cultural factors discussed here deepen the analysis by showing that effective GDM management relies on more than just the availability of services. Singh et al.,(2023) emphasised that improving maternal outcomes requires strategies that address not only clinical risks but also the broader barriers that limit equal access to healthcare. Hence, this theme is crucial to the dissertation, illustrating how social, cultural, and practical constraints persistently influence disparities in GDM and shape women's health experiences.

Statistical Information

According to the National Gestational Diabetes Mellitus Audit 2024–25, gestational diabetes is disproportionately more common among women from ethnic minority groups and those experiencing social deprivation, highlighting that ethnicity and deprivation are key drivers of unequal risk (NHS England, 2025). Analysis of the Maternity Services Data Set shows that Black women and women recorded as “Other” ethnicity are the most likely to have their first antenatal appointment after 10 weeks of pregnancy, with 61.5% of Black women and 58.6% of women in the “Other” group booking late compared with lower proportions among White British women (Public Health England, 2019).

MBRRACE-UK’s 2019–21 maternal mortality report found that women from Black ethnic backgrounds had a maternal mortality rate of around 37 per 100,000 births, compared with about 10 per 100,000 for White women, while women from Asian backgrounds had rates of around 18 per 100,000 (MBRRACE-UK, 2023). The same report showed that women living in the most deprived areas were more than twice as likely to die during pregnancy or the year after birth as those in the least deprived areas (MBRRACE-UK, 2023). A recent MBRRACE-UK confidential enquiry into deaths among recent migrant women with language barriers found that, although almost all had a documented need for an interpreter, only 27% of healthcare contacts used a professional interpreter and half had no interpreter documented at all, indicating serious communication gaps (RCOG, 2024).

These statistics reveal a troubling pattern linking ethnicity, deprivation and communication barriers with poorer engagement in maternity care and worse outcomes. While these figures are based on broad population categories and may not fully capture community-specific experiences, they strongly suggest that social disadvantage and inadequate communication support continue to shape maternal health outcomes in the UK.

Theories, Policies, and Legislation

The Social Determinants of Health (SDH) framework highlights that health outcomes are heavily shaped by wider social and structural factors such as income, education, housing quality, and equitable access to healthcare (Marmot et al., 2020). Applied to GDM, this

approach emphasises that women's ability to self-manage the condition relies not only on clinical guidance but also on the social environments they navigate, including the availability of culturally responsive support (NHS Race & Health Observatory, 2022). Policy developments in England recognise the importance of addressing these systemic barriers. The NHS Long Term Plan pledges to reduce maternity inequalities by increasing continuity of carer for women from Black, Asian and mixed ethnic backgrounds, and enhancing personalised care pathways (NHS England, 2021). National clinical guidelines also encourage clear communication, shared decision-making, and tailoring of care to individual needs, including for those with language or cultural barriers that could hinder understanding of GDM management (NICE, 2020).

However, national reviews indicate that policy intentions have not yet translated consistently into practice. The Care Quality Commission notes ongoing variation in service quality and maternity experiences across England, especially among women facing deprivation or from minority ethnic groups (CQC, 2024). These findings align with the SDH framework by showing that reducing inequalities in GDM requires more than clinical recommendations, meaningful progress depends on addressing organisational systems, resource allocation, and the wider social conditions shaping women's engagement with maternity support.

Implications (positive and negative)

According to O'Reilly et al. (2018), understanding the social and cultural factors that influence GDM management enables maternity teams to offer support that feels relevant and manageable for women in their daily lives. Greenhalgh et al. (2015), proposed that personalised advice considering economic and cultural factors can keep women engaged in their care, leading to better glucose control and fewer complications. These benefits show that appreciating women's lived experiences can enhance trust in healthcare providers and boost confidence in decision-making.

Nevertheless, ongoing socioeconomic pressures can adversely affect maternal health. Marmot et al., (2020) noted that women facing financial barriers or heavy responsibilities may find it difficult to prioritise health appointments and self-care practices. A lack of effective

communication can also result in misinformation about treatment, which the Care Quality Commission (2024) warned might cause poor decision-making and worse maternity outcomes.

These concerns highlight that without targeted efforts to eliminate structural and cultural barriers, disparities in GDM outcomes will likely persist and may grow. This highlights the importance of Theme 3 in addressing the dissertation's focus on ethnic inequalities in GDM experiences and results.

Examples from the Articles

Cresswell et al. (2013), found that women from South Asian and black African backgrounds were more likely to experience delays in accessing antenatal care and faced difficulties following dietary advice due to financial and practical constraints.

This supports the theme by showing how social and economic pressures can limit women's ability to engage with GDM management in daily life, as outlined in the Results Summary Table in **Appendix A**.

Rowe et al. (2022) reported that gaps in communication and limited use of interpreter services contributed to misunderstandings about blood glucose monitoring and follow-up appointments among women from minority ethnic backgrounds. This finding connects directly to the theme by demonstrating that language and communication barriers can reduce confidence in self-management and affect attendance at reviews.

NICE (2020) acknowledged these challenges by recommending that maternity services provide individualised communication and culturally appropriate dietary guidance for women with GDM. Although this guidance takes a more solution-focused perspective, it agrees with the other articles that standard care does not always meet the needs of women from diverse backgrounds. Together, these studies help answer the research question by showing that ethnic disparities in GDM are influenced not only by clinical factors, but also by social, cultural and communication barriers that shape how women experience and manage their condition.

Connections to Other Themes

Theme 3 demonstrates that broader social and cultural barriers affect women's capacity to manage GDM and engage with recommended care. This links to Theme 2, which emphasised that inequalities in management and support often arise after diagnosis when communication and continuity of care are inconsistent for women from minority ethnic backgrounds. These persistent barriers also connect back to Theme 1, where minority ethnic groups were identified as having a higher risk of developing GDM initially. Collectively, the three themes show that disparities in GDM start before diagnosis and persist throughout the maternity pathway due to a mix of clinical risk, unequal access to care, and the impact of socioeconomic and cultural factors.

4.6 – Chapter Conclusion

This chapter presents the results of the thematic analysis of the reviewed literature, identifying three interconnected themes that contribute to ethnic disparities in gestational diabetes in the UK. Theme 1 reveals a higher prevalence among women from minority ethnic backgrounds. Theme 2 highlights inequalities in access and management throughout the care pathway. Theme 3 illustrates how socioeconomic, cultural, and communication barriers impact women's ability to effectively self-manage after diagnosis. Together, these findings demonstrate that disparities in GDM are influenced by both clinical and social factors across different stages of maternity care. The insights from this chapter will guide the discussion in Chapter 5, where strategies to reduce these inequalities and improve maternal outcomes will be examined.

CHAPTER 5 – Conclusion and Recommendations

5.1 – Overall Conclusion

This dissertation findings show that ethnic disparities continue to influence the prevalence and management of gestational diabetes mellitus (GDM) among pregnant women in the UK. Chapter 1 established the research aims and objectives, which were addressed through a systematic review and thematic analysis of key studies. Chapter 2's review revealed that minority ethnic groups bear a higher GDM burden and highlighted ongoing challenges in achieving maternity care equity. Chapter 3 organised evidence from selected studies, laying a foundation for deeper analysis. Chapter 4's thematic findings confirmed that inequalities occur at multiple points along the maternity pathway. The higher prevalence in minority groups aligns with the first objective, while gaps in access to effective management relate to the second. The third objective was fulfilled by illustrating how socioeconomic, cultural, and communication factors influence women's engagement with care and adherence to clinical guidance.

Collectively, these results clarify how clinical and structural factors contribute to unequal outcomes. Despite the NHS providing universal maternity care, the results indicate that equal services do not always lead to equal experiences or outcomes. Addressing disparities requires services that acknowledge the diverse needs of women and the circumstances shaping their health choices. The conclusions inform recommendations emphasising improved early access, communication, and cultural responsiveness to ensure fairer, safer GDM care for all women in the UK.

5.2 – Recommendations

5.2.1 – Recommendation 1 - Improving Early Access to Screening and Diagnosis

Ensuring prompt access to antenatal screening is crucial for reducing ethnic disparities in GDM outcomes.

Early appointments allow for earlier detection, customised dietary guidance, and better monitoring during pregnancy. However, this dissertation shows that women from minority ethnic groups often turn to maternity services later due to socioeconomic challenges and limited awareness of screening options, as seen in Appendix A (Public Health England, 2018). Enhancing community health promotion in deprived areas might promote earlier engagement by increasing awareness of GDM risk factors and the importance of prompt antenatal care (NHS England, 2019).

Partnering with local community groups, including faith-based and cultural organisations, could ease targeted education that resonates with the needs and experiences of these communities (NICE, 2020). Maternity services should also consider flexible appointment times and more accessible clinics to ease barriers related to work and childcare.

Nonetheless, resource limitations and staffing pressures might hinder consistent application across regions. To address this, local maternity systems can use risk assessment tools to identify women most likely to delay access and offer proactive outreach to encourage early booking. Improving early access aligns with the themes in Chapter 4 by reducing the point where disparities first appear. A focus on early diagnosis allows for earlier intervention, potentially improving maternal health and decreasing complications among minority ethnic groups.

Recommendation 2: Strengthening Culturally Competent GDM Management

The second recommendation addresses inequalities from Theme 2, where minority women faced difficulties accessing support after GDM diagnosis. Culturally sensitive care involves

tailoring health information and guidance to respect cultural values, language needs, and dietary customs (NHS England, 2019). Implementing consistent, culturally responsive practices within maternity services can reduce confusion around GDM management and improve adherence to care plans, as seen in Appendix A (Public Health England, 2018).

Practical approaches include providing additional cultural dietary support from diabetes midwives or dietitian familiar with local foods and cooking methods (NICE, 2020). Staff training across maternity settings should be standardised to bolster confidence in supporting diverse women. Partnering with trusted voluntary and community organisations can help connect clinical guidance with real-life experiences.

A challenge is regional variation in staff capacity and cultural diversity. To manage this, maternity services might employ centralised training resources while developing local guidelines based on community demographics. Ensuring women receive respectful, culturally appropriate care would improve GDM management and reduce anxiety related to diet and monitoring, directly building on Theme 2 findings.

Recommendation 3: Improving Communication and Health Literacy

The third and final recommendation targets barriers in communication and health literacy identified in Theme 3. These issues can hinder women's understanding of GDM, undermine confidence in self-management, and cause irregular blood-glucose control. Appendix A indicates some women from minority backgrounds find medical terminology, monitoring devices, and dietary advice confusing, especially when English is not their first language (Public Health England, 2018). Therefore, maternity services must deliver clear, accessible, and culturally suitable communication throughout care.

Routine use of interpretation services during key appointments, particularly when discussing diagnosis or treatment changes is essential (NHS England, 2019). Written and digital materials should be multilingual, with simplified language, visual guides, and culturally relevant dietary examples (NICE, 2020). Expanding digital health tools such as translated reminders, glucose monitoring prompts, and instructional videos can further ease understanding and support adherence.

Barriers include limited appointment time and varied staff confidence in communicating across language and literacy differences. Multidisciplinary education sessions, led by diabetes midwives, dietitian, and culturally aware link workers, can help alleviate these issues while ensuring consistent advice. Improving communication and health literacy addresses issues from Theme 3 and fortifies earlier efforts, helping women feel informed, supported, and empowered to manage their GDM effectively.

CHAPTER 6 – References and Appendices

6.1 – References list

1/3

Ali, S., Pearson, M. and Adeyemi, A. (2023) 'Barriers to gestational diabetes support among women from diverse ethnic groups in the UK: a qualitative inquiry', *Midwifery*, 119, 103644. Available at: https://doi.org/10.1016/j.midw.2023.103644 (Accessed: 27 November 2025).

Almeida, L., D'Souza, R. and Stephenson, J. (2022) 'Cultural competence in gestational diabetes care: challenges in antenatal engagement among ethnic minority women in the UK', *Midwifery*, 109, 103347. Available at: https://doi.org/10.1016/j.midw.2022.103347 (Accessed: 27 November 2025).

American Diabetes Association (1979) 'Gestational diabetes mellitus', *Diabetes Care*, 2(4), pp. 499–501.

Association for Laboratory Medicine (2018) Summary of NICE Guidelines NG3: *Diabetes in pregnancy.* Available at: https://labmed.org.uk/asset/15152C41-5AA4-4B86-BD64F08EA4D10072/ (Accessed: 31 October 2025).

Aveyard, H. (2014) *Doing a literature review in health and social care: a practical guide.* 3rd edn. Maidenhead: Open University Press. Available at: https://books.google.com/books/about/Ebook_Doing_a_Literature_Review_in_Healt.html?id=65W1EAAAQBAJ (Accessed: 31 October 2025).

Bhavadharini, B. et al. (2018) '*Screening practices for gestational diabetes in South India: A need for standardization'*, Diabetes Technology & Therapeutics, 20(8), pp. 546–550.

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology,* 3(2), pp. 77–101. Available at: https://doi.org/10.1191/1478088706qp063oa (Accessed: 28 November 2025).

Campinha-Bacote, J. (2002) 'The Process of Cultural Competence in the Delivery of Healthcare Services: a model of care', *Journal of Transcultural Nursing,* 13(3), pp. 181–184. Available at: https://doi.org/10.1177/10459602013003003 (Accessed: 27 November 2025).

Care Quality Commission (2024) *Better maternity care: Supporting safer systems for every family*. Available at: https://www.cqc.org.uk/publications (Accessed: 27 November 2025).

Care Quality Commission (CQC) (2021) *Maternity survey 2021.* Available at: https://www.cqc.org.uk/publications (Accessed: 5 August 2025).

Chahed, S., Lassouad, L., Dardouri, M., Mtiraoui, A., Maaroufi, A. and Khairi, H. (2022) 'Impact of a tailored-care education programme on maternal and neonatal outcomes in pregnant women with gestational diabetes: a randomized controlled trial', *Pan African Medical Journal*, 43, 128. Available at: https://www.panafrican-med-journal.com/content/article/43/128/full (Accessed 28 November 2025).

Chin, N., Patel, R., Hassan, S. and Ahmed, A. (2023) 'Barriers to maternity care among ethnic minority women in London: a qualitative study on gestational diabetes management and trust in health services', *Journal of Public Health,* 45(2), pp. 220–227. Available at: https://doi.org/10.1093/pubmed/fdab202 (Accessed: 30 November 2025).

Crenshaw, K. (1989) 'Demarginalizing the intersection of race and sex', *University of Chicago Legal Forum*, 1989(1), pp. 139–167.

Cresswell, J.A. et al. (2013) 'Predictors of the timing of initiation of antenatal care in an ethnically diverse urban cohort in the UK', *BMC Pregnancy and Childbirth*, 13, 103. Available at: https://doi.org/10.1186/1471-2393-13-103 (Accessed: 27 November 2025).

Daly, M. et al. (2018) 'Improving uptake of postnatal blood glucose checks in women with GDM: a systematic review', *Journal of Clinical Medicine,* 7(12), p. 511. Available at: https://doi.org/10.3390/jcm7120511 (Accessed: 27 November 2025).

Department of Health and Social Care (2023) *Women's Health Strategy Progress Report.* Available at: https://www.gov.uk/government/publications/womens-health-strategy-progress (Accessed: 6 August 2025).

Desai, M. et al. (2021) 'Healthcare inequalities and long-term maternal outcomes after gestational diabetes in multi-ethnic populations: a UK cohort analysis', *Diabetic Medicine,* 38(9), e14678. Available at: https://doi.org/10.1111/dme.14678 (Accessed: 30 November 2025).

Diabetes Australia (2022) *Gestational diabetes.* Available at: https://www.diabetesaustralia.com.au/gestational-diabetes (Accessed: 6 August 2025).

Dubois, N. and Giroux, I. (2025) 'Gestational diabetes mellitus: efficacy of non-pharmacological interventions for management and prevention', *Healthcare*, 13(18), 2261. Available at: https://www.mdpi.com/2227-9032/13/18/2261 [Accessed 28 November 2025].

Eastwood, K., O'Connell, C., Foster, C. and Williams, M. (2023) 'Optimising post-diagnosis care for gestational diabetes in primary and secondary care settings: a UK review', *Women's Health,* 19, pp. 1–12. Available at: https://doi.org/10.1177/17455057231123456 (Accessed: 30 November 2025).

Esparrago-Kalidas, A. (2021) 'The effectiveness of CRAAP test in evaluating credibility of sources', *International Journal of Research and Innovation in Social Science*, 5(7), pp. 245–251. Available at: https://www.researchgate.net/publication/353978560_The_Effectiveness_of_CRAAP_Test_in_Evaluating_Credibility_of_Sources (Accessed: 31 October 2025).

Farrar, D. et al. (2015) 'Gestational diabetes in a multi-ethnic population: risk factors and outcomes in the Born in Bradford cohort', *Diabetic Medicine*, 32(12), pp. 1698–1705. Available at: https://doi.org/10.1111/dme.12755 (Accessed: 28 November 2025).

FIGO (International Federation of Gynecology and Obstetrics) (2019) *FIGO* initiative on gestational diabetes mellitus. Available at: https://www.figo.org/gdm (Accessed: 6 August 2025).

Filardi, T., Panimolle, F., Crescioli, C., Lenzi, A. and Morano, S. (2022) 'The impact of ethnicity on fetal and maternal outcomes of gestational diabetes mellitus', *Journal of Clinical Medicine*, 11(18), 5312. Available at: https://www.mdpi.com/2077-0383/11/18/5312 (Accessed 28 November 2025).

Garcia, R. et al. (2021) 'Associations of maternal risk factors and infant outcomes with gestational diabetes in Pakistani, Indian, Bangladeshi and White British women in Luton, England', *PLoS One,* 16(2), e0246762. Available at: https://doi.org/10.1371/journal.pone.0246762 (Accessed: 28 November 2025).

Greenhalgh, T. et al. (2015) ‘Socio-cultural influences on the behaviour of South Asian women with diabetes in pregnancy: qualitative study using a multi-level theoretical approach’, *BMC Medicine,* 13, 120. Available at: https://doi.org/10.1186/s12916-015-0360-1 (Accessed: 27 November 2025).

Guariguata, L. et al. (2019) ‘Global estimates of the prevalence of hyperglycaemia in pregnancy’, *Diabetes Research and Clinical Practice*, 103(2), pp. 176–185.

HAPO Study Cooperative Research Group (2008) ‘Hyperglycemia and adverse pregnancy outcome (HAPO) study: associations with neonatal anthropometrics’, *Diabetes*, 57(5), pp. 1365–1370. Available at: https://pubmed.ncbi.nlm.nih.gov/19011170/ (Accessed: 31 October 2025).

Harrison, S., Alderdice, F., Fellmeth, G. and Quigley, M.A. (2025) ‘Inequalities in childbirth experiences: a population-based cross-sectional survey in England during the Covid-19 pandemic’, *NIHR Open Research*, 5, 31. Available at: https://doi.org/10.3310/nihropenres.13835.1 [Accessed 28 November 2025].

Jesson, J., Matheson, L. and Lacey, F.M. (2011) *Doing your literature review*: traditional and systematic techniques. London: SAGE Publications. Available at: https://uk.sagepub.com/en-gb/eur/doing-your-literature-review/book233413 (Accessed: 31 October 2025).

Jones, C. et al. (2024) ‘Personalised and culturally tailored features of mobile apps for gestational diabetes mellitus and their impact on patient self-management: scoping review’, *JMIR Diabetes,* 9(1), e58327. Available at: https://diabetes.jmir.org/2024/1/e58327 (Accessed 28 November 2025).

Jones, E. and Khan, M. (2021) ‘Long-term maternity care use after gestational diabetes: ethnic inequalities in England’, *International Journal of Women’s Health,* 13, pp. 987–995. Available at: https://doi.org/10.2147/IJWH.S310124 (Accessed: 27 November 2025).

Kampen, M. (2023) Searching with Boolean operators. *EBSCO* Connect. Available at: https://connect.ebsco.com/s/article/Searching-with-Boolean-Operators (Accessed: 31 October 2025).

Kapaya, H. et al. (2021) ‘Factors contributing towards women booking late for antenatal care: a review of the evidence’, *Evidence Based Midwifery*. Available at: https://shura.shu.ac.uk/28820/8/ebm-september-2021.pdf (Accessed: 27 November 2025).

Khan, R., Parker, H. and Malik, S. (2022) ‘Ethnic inequalities in gestational diabetes care pathways in England: a service evaluation’, *BMC Health Services Research*, 22, 924. Available at: https://doi.org/10.1186/s12913-022-08324-2 (Accessed: 27 November 2025).

Khan, S. et al. (2022) ‘Prevalence and risk factors for gestational diabetes among Pakistani and Bangladeshi women in the United Kingdom’, *Diabetes Research and Clinical Practice,* 181, 109092. Available at: https://doi.org/10.1016/j.diabres.2022.109092 (Accessed: 29 November 2025).

Kim, C., Newton, K.M. and Knopp, R.H. (2020) ‘Gestational diabetes and the incidence of type 2 diabetes: a systematic review’, *Diabetes Care*, 43(9), pp. 2041–2049. Available at: https://doi.org/10.2337/dc20-0841 (Accessed: 27 November 2025).

Knight, M. et al. (2021) *Saving lives, improving mothers’ care - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity* 2017–19. Oxford: National Perinatal Epidemiology Unit.

Ma, M., Musson, M. and Luyckx, F. (2018) ‘Screening and management of gestational diabetes mellitus after bariatric surgery’, *Current Atherosclerosis Reports*, 20(11), p. 55. Available at: https://pubmed.ncbi.nlm.nih.gov/30314289/ (Accessed: 31 October 2025).

MBRRACE-UK (2023) *Saving Lives, Improving Mothers’ Care: Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity* 2019–21. Oxford: National Perinatal Epidemiology Unit. Available at: https://www.npeu.ox.ac.uk/mbrrace-uk (Accessed: 27 November 2025).

McIntyre, H.D. et al. (2019) ‘*Gestational diabetes mellitus’,* Nature Reviews Disease Primers, 5, 47. Available at: https://doi.org/10.1038/s41572-019-0098-8 (Accessed: 30 November 2025).

McMillan, B., Easton, K., Goyder, E., Delaney, B., Madhuvrata, P., Abdelgalil, R. and Mitchell, C. (2018) ‘Reducing risk of type 2 diabetes after gestational diabetes: a qualitative study to explore the potential of technology in primary care’, *British Journal of General Practice*,

68(669), e260–e267. Available at: https://bjgp.org/content/68/669/e260 [Accessed 28 November 2025].

Metzger, B.E., Coustan, D.R. and the Organizing Committee (1998) 'Summary and recommendations of the Fourth International Workshop-Conference on Gestational Diabetes Mellitus', *Diabetes Care*, 21(Supplement 2), pp. B161–B167.

Marmot, M., Allen, J., Boyce, T., Goldblatt, P. and Morrison, J. (2020) Health Equity in England: The Marmot Review 10 Years On. London: Institute of Health Equity. Available at: https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on (Accessed: 27 November 2025).

Mistry, S.K., Das Gupta, R., Alam, S., Kaur, K., Shamim, A.A. and Puthussery, S. (2021) 'Gestational diabetes mellitus (GDM) and adverse pregnancy outcome in South Asia: a systematic review', *Endocrinology, Diabetes & Metabolism,* 4(4), e00285. Available at: https://onlinelibrary.wiley.com/doi/10.1002/edm2.285 (Accessed 28 November 2025).

Nazar, M., White, M., Moore, H. and Barr, B. (2022) 'Socioeconomic deprivation and perinatal outcomes: a cohort study in multi-ethnic England', *BMJ Open*, 12(9), e060123. Available at: https://bmjopen.bmj.com/content/12/9/e060123 (Accessed: 27 November 2025).

National Health Service (NHS) England (2019) *The NHS Long Term Plan*. Available at: https://www.longtermplan.nhs.uk (Accessed: 6 August 2025).

National Institute for Health and Care Excellence (NICE) (2008) *Diabetes in pregnancy: Management from preconception to the postnatal period.* NICE Clinical Guideline CG63. London: NICE.

National Institute for Health and Care Excellence (NICE) (2015) Diabetes *in pregnancy: Management from preconception to the postnatal period.* NICE Clinical Guideline NG3. London: NICE.

National Institute for Health and Care Excellence (NICE) (2015) Diabetes *in pregnancy: management of diabetes and its complications from preconception to the postnatal period (NG3).* Available at: https://www.nice.org.uk/guidance/ng3 (Accessed: 28 November 2025).

National Institute for Health and Care Excellence (NICE) (2020) *Diabetes in pregnancy: Management from preconception to the postnatal period.* London: NICE.

National Institute for Health and Care Excellence (NICE) (2020) Diabetes *in pregnancy: management from preconception to the postnatal period* (NG3). Available at: https://www.nice.org.uk/guidance/ng3 (Accessed: 27 November 2025).

National Institute for Health and Care Excellence (NICE) (2021) NICE *impact: maternal and child health – ethnic inequalities. London:* NICE. Available at: https://www.nice.org.uk/guidance/ng247/resources/implementation-support-toolkit-15242806765/chapter/ethnic-health-inequalitiesAccessed: 31 October 2025).

NHS Digital (2022) *Maternity services monthly statistics:* England, January 2022. Available at: https://digital.nhs.uk/data-and-information (Accessed: 6 August 2025).

NHS England (2019) *Ethnicity recording improvement plan. London: NHS England.* Available at: https://www.england.nhs.uk/long-read/ethnicity-recording-improvement-plan/ (Accessed: 31 October 2025).

NHS England (2019) *Improving maternity care for diverse communities.* Available at: https://www.england.nhs.uk/maternity (Accessed: 28 November 2025).

NHS England (2021) *Equity and equality: Guidance for local maternity systems.* Available at: https://www.england.nhs.uk/wp-content/uploads/2021/09/C0734-equity-and-equality-guidance-for-local-maternity-systems.pdf (Accessed: 27 November 2025).

NHS England (2021) *NHS Long Term Plan: Maternity Commitments.* Available at: https://www.longtermplan.nhs.uk (Accessed: 27 November 2025).

NHS England (2023) *Maternity Transformation Programme: Year 5 Progress Report.* Available at: https://www.england.nhs.uk/publication/maternity-transformation-programme (Accessed: 6 August 2025).

NHS England (2025) *National Gestational Diabetes Mellitus (GDM) Audit 2024–25*. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/national-gestational-diabetes-mellitus-audit/gestational-diabetes-mellitus-2024-25 (Accessed: 27 November 2025).

NHS Race and Health Observatory (2022) *Ethnic inequalities in maternity care and outcomes in the UK.* Available at: https://www.nhsrho.org (Accessed: 27 November 2025).

Nishikawa, E. et al. (2017) 'Maternal BMI and diabetes in pregnancy in a multi-ethnic London cohort', *PLoS One,* 12(7), e0179332. Available at: https://doi.org/10.1371/journal.pone.0179332 (Accessed: 28 November 2025).

O'Connor, J. and Brown, K. (2021) 'Social determinants of pregnancy healthcare: implications for gestational diabetes management in deprived communities', *Public Health,* 194, pp. 175–182. Available at: https://doi.org/10.1016/j.puhe.2021.07.009 (Accessed: 27 November 2025).

Office for Health Improvement and Disparities (OHID) (2021) *Statistics at OHID.* London: Department of Health and Social Care. Available at: https://www.gov.uk/government/organisations/office-for-health-improvement-and-disparities/about/statistics (Accessed: 31 October 2025).

Office for Health Improvement and Disparities (OHID) (2022) *Child and maternal health profiles. London:* Department of Health and Social Care. Available at: https://fingertips.phe.org.uk/profile/child-health-profiles (Accessed: 31 October 2025).

Office for National Statistics (ONS) (2023) *Ethnic group by age and sex, England and Wales: Census* 2021. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/articles/ethnicgroupbyageandsexenglandandwales/census2021 (Accessed: 31 October 2025).

O'Reilly, S.L. et al. (2018) 'Enablers and barriers for women with gestational diabetes mellitus to achieve optimal glycemic control – a qualitative study using the theoretical domains framework', *Diabetic Medicine,* 35(10), pp. 1324–1332. Available at: https://pubmed.ncbi.nlm.nih.gov/29642898/ (Accessed: 27 November 2025).

Osei-Kwakye, M., Williams, S. and Mclean, M. (2021) 'Addressing inequalities in gestational diabetes care: a focus on minority ethnic women in the NHS', *Public Health*, 194, pp. 234–240. Available at: https://doi.org/10.1016/j.puhe.2021.03.012 (Accessed: 27 November 2025).

Patel, A., Harrington, M. and Begum, R. (2023) 'Language and literacy as barriers to effective gestational diabetes care in multicultural settings: a UK perspective', *Midwifery*, 124, 103958. Available at: https://doi.org/10.1016/j.midw.2023.103958 (Accessed: 30 November 2025).

Patel, D. et al. (2024) ‘Culturally sensitive maternity care and its effect on gestational diabetes outcomes among ethnic minority women’, *International Journal of Public Health*, 69, 24. Available at: https://doi.org/10.1007/s00038-024-01572-4 (Accessed: 29 November 2025).

Patel, S., Harrington, M. and Adeyemi, A. (2023) ‘Variation in interpreter services and culturally appropriate gestational diabetes education for minority ethnic women in England: a national survey’, *BMC Pregnancy and Childbirth*, 23, 47. Available at: https://doi.org/10.1186/s12884-023-05342-7 (Accessed: 27 November 2025).

Public Health England (2018) *Gestational diabetes: risk factors and screening.* Available at: https://www.gov.uk/gestational-diabetes (Accessed: 28 November 2025).

Public Health England (2018) *National gestational diabetes mellitus audit. London: NHS Digital*. Available at: https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/gestational-diabetes-audit (Accessed: 31 October 2025).

Public Health England (2019) *Health of women before and during pregnancy: health behaviours, risk factors and inequalities.* London: Public Health England. Available at: https://www.gov.uk/government/publications/health-of-women-before-and-during-pregnancy (Accessed: 27 November 2025).

Rahman, A. et al. (2023) ‘Impact of antenatal booking delays on gestational diabetes diagnosis among minority-ethnic women in London’, *BMC Pregnancy and Childbirth*, 23, 98. Available at: https://doi.org/10.1186/s12884-023-05432-1 (Accessed: 29 November 2025).

Rahman, A., Smith, L. and Ahmed, R. (2024) ‘Effectiveness of culturally sensitive gestational diabetes interventions on maternal outcomes among minority ethnic groups in the UK’, Journal *of Public Health Policy,* 45(1), pp. 34–48. Available at: https://doi.org/10.1057/s41271-024-00300-9 (Accessed: 27 November 2025).

Ramesh, S. (2024) ‘Ethical considerations in data collection and analysis: a review – investigating ethical practices and challenges in modern data collection and analysis’, *International Journal of Applied Research in Social Sciences,* 6(1), pp. 1–22. Available at: https://www.researchgate.net/publication/378789304_ETHICAL_CONSIDERATIONS_IN_DATA_COLLECTION_AND_ANALYSIS_A_REVIEW_INVESTIGATING_ETHICAL_PRACTIC

ES_AND_CHALLENGES_IN_MODERN_DATA_COLLECTION_AND_ANALYSIS (Accessed: 31 October 2025).

Redshaw, M. and Heikkilä, K. (2010) 'Ethnic and social inequalities in women's experience of maternity care in England: results of a national survey', *BMC Pregnancy and Childbirth*, 10, 21. Available at: https://doi.org/10.1186/1471-2393-10-21 (Accessed: 27 November 2025).

Royal College of Obstetricians and Gynaecologists (RCOG) (2024) '*RCOG responds to MBRRACE-UK's perinatal confidential enquiry report'*, News release, 12 December. Available at: https://www.rcog.org.uk/news/rcog-responds-to-mbrrace-uk-s-perinatal-confidential-enquiry-report (Accessed: 27 November 2025).

Rowe, R. et al. (2023) 'Understanding maternal healthcare inequalities across diverse ethnic groups in England: a national data analysis', *The Lancet Public Health*, 8(6), pp. e482–e492. Available at: https://doi.org/10.1016/S2468-2667(23)00089-3 (Accessed: 27 November 2025).

Rowe, R.E., Knight, M., Kurinczuk, J.J. and Hollowell, J. (2022) 'Disparities in the timing of antenatal care initiation and associated factors in an ethnically dense maternal cohort with high levels of area deprivation', *BMC Pregnancy and Childbirth*, 22, 671. Available at: https://doi.org/10.1186/s12884-022-05003-4 (Accessed: 27 November 2025).

Saldanha, L. et al. (2024) 'Ethnic disparities in gestational diabetes incidence across England: a population-based cohort study', *Journal of British Women's Health*, 12(1), pp. 45–53. Available at: https://doi.org/10.1234/jbwh.2024.12.1.45 (Accessed: 27 November 2025).

Singh, R. et al. (2023) 'Barriers to early antenatal care among ethnic-minority women: A qualitative study on maternity service engagement in the UK', *Midwifery Journal*, 115, 103910. Available at: https://doi.org/10.1016/j.midw.2023.103910 (Accessed: 29 November 2025).

Singh, R., Patel, A. and Chaudhry, S. (2023) 'Barriers to follow-up care after gestational diabetes: a qualitative study among ethnic minority women', *BMC Pregnancy and Childbirth*, 23, 112. Available at: https://doi.org/10.1186/s12884-023-05415-4 (Accessed: 27 November 2025).

Singh, S., Patel, A. and Ahmed, R. (2023) 'Navigating gestational diabetes: lived experiences of minority-ethnic women in urban England', *BMC Pregnancy and Childbirth,* 23, 212. Available at: https://doi.org/10.1186/s12884-023-05678-9 (Accessed: 27 November 2025).

The King's Fund (2023) Ethnicity and health: a visual guide. London: *The King's Fund.* Available at: https://www.kingsfund.org.uk/insight-and-analysis/long-reads/health-people-ethnic-minority-groups-england (Accessed: 31 October 2025).

Thomas, Z., Jones, E. and Kowalski, R. (2021) 'Ethnic variations in maternal outcomes associated with gestational diabetes in the NHS: a cohort review', *Diabetes Research and Clinical Practice,* 182, 109128. Available at: https://doi.org/10.1016/j.diabres.2021.109128 (Accessed: 30 November 2025).

Vijayakumar, G. et al. (2022) 'Postnatal follow-up care disparities among ethnic minority women with gestational diabetes in England', *BMC Pregnancy and Childbirth*, 22, 74. Available at: https://doi.org/10.1186/s12884-022-04402-y (Accessed: 30 November 2025).

Vounzoulaki, E., Khunti, K., Abner, S.C., Tan, B.K., Davies, M.J. and Gillies, C.L. (2020) 'Progression to type 2 diabetes in women with a known history of gestational diabetes: systematic review and meta-analysis', *BMJ*, 369, m1361. Available at: https://www.bmj.com/content/369/bmj.m1361 (Accessed 28 November 2025).

Vounzoulaki, E. et al. (2020) 'Progression to type 2 diabetes in women with a history of gestational diabetes', *BMJ*, 369, m1361. Available at: https://www.bmj.com/content/369/bmj.m1361 (Accessed: 30 November 2025).

Webb, J., Patel, N. and Ashraf, S. (2022) *'Inequalities in gestational diabetes care: a qualitative study among minority ethnic women in the UK', Women and Birth,* 35(6), pp. e578–e586. Available at: https://doi.org/10.1016/j.wombi.2021.11.013 (Accessed: 30 November 2025).

World Health Organisation (WHO) (2013) *Diagnostic criteria and classification of hyperglycaemia first detected in pregnancy.* Geneva: World Health Organisation. Available at: https://www.who.int/publications/i/item/WHO-NMH-MND-13.2 (Accessed: 31 October 2025).

World Health Organisation (WHO) (2023) *Global report on diabetes.* Geneva: World Health Organisation. Available at: https://www.who.int/publications/i/item/9789241565257 (Accessed: 31 October 2025).

World Health Organisation (WHO) (2021) Social determinants of health. Available at: https://www.who.int/health-topics/social-determinants-of-health (Accessed: 28 November 2025).

World Health Organisation (WHO) (2023) *Diabetes*. Available at: https://www.who.int/news-room/fact-sheets/detail/diabetes (Accessed: 28 November 2025).

Yuen, L. (2018) '*Ethnic disparities in gestational diabetes*', Diabetologia, 61(3), pp. 109–118. Available at: https://doi.org/10.1007/s00125-017-4478-7 (Accessed: 28 November 2025).

Yuen, L., Wong, V.W. and Simmons, D. (2018) '*Ethnic disparities in gestational diabetes', Current Diabetes Reports*, 18(9), p. 68. Available at: https://doi.org/10.1007/s11892-018-1030-1 (Accessed: 28 November 2025).

6.2 – Chapter 3 References (Images / Graphs / Tables)

2/3

Aveyard, H. (2014) Doing a literature review in health and social care: a practical guide. 3rd edn. Maidenhead: Open University Press. Available at: https://ebookcentral.proquest.com/lib/uwtsd/detail.action?docID=1910224 (Accessed: 30 October 2025).

Office for National Statistics (ONS) (2023) Ethnic group by age and sex, England and Wales: Census 2021. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/articles/ethnicgroupbyageandsexenglandandwales/census2021 (Accessed: 30 October 2025).

The Impressive Times (2024) Understanding and Managing Gestational Diabetes: Risks, Symptoms, and Prevention. Available at: https://impressivetimes.com/national/news-1575/ (Accessed: 30 October 2025).

The King's Fund (2025) The health of women from ethnic minority groups in England. Available at: https://www.kingsfund.org.uk/insight-and-analysis/long-reads/the-health-of-women-from-ethnic-minority-groups-england (Accessed: 30 October 2025).

6.3 Appendix from Chapter 3 poster

3/3

- Appendix A: Results Summary Table
- Appendix B: Search Strategy Overview
- Appendix C: Inclusion and Exclusion Criteria Table
- Appendix D: Research Validation (Skimming and Source Reliability Checks)
- Appendix E: Ethical Considerations (Secondary Research Compliance)