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Title: A Systematic Review Investigating the Influence of Socioeconomic Status on Obesity Among Young Adults (18–35 Years) in the United Kingdom

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Title of the Proposed Research

A Systematic Review Investigating the Influence of Socioeconomic Status on Obesity Among Young Adults (18–35 Years) in the United Kingdom

Introduction

Obesity is a complex, multifactorial condition influenced by the interaction of biological, behavioural, environmental, and social determinants of health (Swinburn et al., 2019). Socioeconomic status (SES), typically measured using indicators such as income, educational attainment, and occupational status, has been consistently identified as a major determinant of obesity in high-income countries, including the United Kingdom (McLaren, 2007). In the UK context, individuals from lower socioeconomic groups are more likely to experience obesogenic environments characterised by limited access to healthy foods, reduced opportunities for physical activity, and increased exposure to stressors linked to economic insecurity (Drewnowski, 2018).

Young adulthood, defined in this study as individuals aged 18–35 years, represents a critical life stage during which long-term health behaviours are established, and weight gain commonly occurs (Nelson et al., 2019). Transitions associated with this period, such as entering higher education, employment, or parenthood, may exacerbate socioeconomic inequalities in health behaviours and obesity risk (Viner et al., 2015). Despite growing recognition of the importance of early intervention, young adults remain underrepresented in obesity research and prevention strategies compared to children and older adults (Hillier-Brown et al., 2019).

Understanding how socioeconomic status influences obesity among young adults, and the role of lifestyle factors in mediating this relationship, is essential for informing effective public health interventions and policies (Marmot et al., 2020). This research proposal outlines a systematic literature review that aims to synthesise existing evidence on the relationship between socioeconomic status and obesity among young adults in the United Kingdom.

Literature-Based Background of the Study

A significant amount of research shows that socioeconomic standing and obesity are clearly inversely associated in high-income nations, with higher obesity prevalence shown in those with lower incomes and educational levels (McLaren, 2007). The persistence of health disparities is demonstrated by national surveys conducted in the UK, which continually reveal higher prevalence of obesity in areas of greater disadvantage (Office for Health Improvement and Disparities, 2022). Due to cost, availability, and time constraints, lower-income populations are more likely to eat foods that are high in energy but low in nutrients (Drewnowski & Darmon, 2015). Dietary behaviour is a major relationship between socioeconomic status and obesity.

Food insecurity, which disproportionately affects young adults in precarious employment or low-income households, has been associated with irregular eating patterns and increased reliance on processed foods (Loopstra et al., 2020). Physical activity levels also vary significantly by socioeconomic status, with individuals from deprived areas reporting lower engagement in recreational and structured physical activity (Sport England, 2022). Environmental barriers, including unsafe neighbourhoods, limited green spaces, and lack of affordable leisure facilities, contribute to these disparities (Sallis et al., 2016).

Lifestyle behaviours such as smoking and alcohol consumption further mediate the relationship between SES and obesity, with higher rates of smoking and hazardous drinking observed among socioeconomically disadvantaged populations (ONS, 2022).

Psychosocial stress associated with financial insecurity, job instability, and housing precarity has been identified as an additional mechanism linking low socioeconomic status to obesity through stress-related eating and hormonal pathways (Moore et al., 2020). Access to healthcare and weight management services is also socially patterned, with evidence suggesting lower utilisation of preventive services among young adults from lower socioeconomic backgrounds (NHS England, 2023). Despite this extensive evidence base, findings remain fragmented, and there is a lack of synthesis focusing specifically on young adults within the UK context, justifying the need for a systematic review (PRISMA, 2020).

Prevalence of the Problem in Health and Social Care

According to the World Health Organization (2023), obesity has been designated as one of the most significant health problems confronting the United Kingdom, with severe ramifications for the health and social care systems. According to recent national figures, 64% of individuals in England are overweight or obese, and the incidence among young adults between the ages of 18 and 35 is still rising (NHS Digital, 2023). Type 2 diabetes, cardiovascular disease, musculoskeletal diseases, and several types of cancer are among the chronic ailments that obesity is linked to an increased risk of, which increases morbidity and mortality (Public Health England, 2021).

The burden of obesity extends beyond physical health, with strong associations identified between obesity and poor mental health outcomes, including depression, anxiety, and reduced quality of life (Luppino et al., 2019). From a health and social care perspective, obesity places considerable strain on healthcare services, increasing demand for primary care, specialist services, and long-term management of chronic disease (House of Commons Library, 2023).

The annual cost of obesity to the NHS is estimated to exceed £6.5 billion, with wider societal costs, including productivity losses and social care expenditure, estimated to be significantly higher (McKinsey Global Institute, 2022). Importantly, obesity does not affect all population groups equally, with strong evidence of socioeconomic inequalities in both prevalence and outcomes (Marmot et al., 2020). Young adults from lower socioeconomic backgrounds experience disproportionately higher rates of obesity, reflecting broader structural inequalities related to income, education, employment, and living conditions (Office for National Statistics, 2022). Addressing obesity among young adults is therefore a key priority for public health and social care policy, particularly in relation to reducing health inequalities and promoting long-term population health (NICE, 2023).

Rationale of the Study

The rationale for this study is grounded in the persistent and widening socioeconomic inequalities in obesity observed in the United Kingdom (Marmot et al., 2020). Young adulthood is a critical but underexplored life stage in obesity research, despite evidence that weight gain during this period often tracks into later adulthood, increasing long-term health risks (Nelson et al., 2019). Existing research often focuses on children or older adults, limiting the applicability of findings to young adult populations who face distinct social and economic challenges (Hillier-Brown et al., 2019). Furthermore, while individual lifestyle behaviours are frequently examined in isolation, there is a need for integrated analysis that considers how multiple lifestyle factors interact to mediate the relationship between socioeconomic status and obesity (Drewnowski, 2018).

A systematic literature review provides a rigorous and transparent method for synthesising existing evidence, identifying gaps in knowledge, and informing future research and policy development (PRISMA, 2020). By focusing specifically on the UK context, this study aligns with national public health priorities aimed at reducing health inequalities and promoting prevention-focused approaches to obesity management (NHS Long Term Plan, 2019).

Research Question

What is the relationship between socioeconomic status and obesity among young adults aged 18–35 years in the United Kingdom?

Aim

The overall aim of this study is:

To examine, through a systematic literature review, how socioeconomic status influences obesity among young adults aged 18–35 years in the United Kingdom.

Objectives

1. To systematically review existing literature examining the relationship between socioeconomic status (income, education, and occupation) and obesity among young adults aged 18–35 years in the UK.
2. To examine lifestyle factors, including diet quality, physical activity, smoking, alcohol use, and psychosocial stress, that mediate the relationship between socioeconomic status and obesity.
3. To explore how access to healthcare and weight management services varies by socioeconomic status and contributes to obesity outcomes among young adults.

Research Methodology

A systematic literature review methodology will be employed to address the research aim and objectives of this study (PRISMA, 2020). As stated by Higgins et al. (2022), systematic reviews are widely acknowledged as a rigorous method for synthesizing existing information, minimizing bias, and producing transparent and repeatable results. According to Swinburn et al. (2019), this methodology is especially suitable for analyzing complex public health concerns like obesity, where evidence comes from a variety of fields, including epidemiology, sociology, and behavioral science. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria will be adhered to in order to guarantee methodological quality and transparency (Page et al., 2021).

Research Design

The study will use a systematic review design with an emphasis on mixed-methods, quantitative, and qualitative research done in the UK (PRISMA, 2020). This inclusive design allows for comprehensive exploration of both statistical associations between socioeconomic status and obesity, as well as contextual insights into lived experiences and behavioural pathways (Harden et al., 2018). Observational studies,

including cross-sectional and longitudinal designs, will be prioritised due to their relevance in examining socioeconomic inequalities in health outcomes (Marmot et al., 2020). Qualitative studies exploring perceptions of diet, physical activity, and access to services among young adults will also be considered to enhance contextual understanding (Moore et al., 2020).

Data Sources

Electronic database searches will be conducted across multiple academic platforms to ensure comprehensive coverage of relevant literature (Higgins et al., 2022).

The primary databases to be searched will include:

- PubMed
- MEDLINE
- Google Scholar

Furthermore, government and public health papers, including those from Public Health England, NHS England, and the Office for National Statistics, will be examined as grey literature sources (ONS, 2022).

To find additional relevant papers, the reference lists of the listed research will be manually examined (Greenhalgh & Peacock, 2005).

Search Strategy

A structured search strategy will be developed using Boolean operators to combine key concepts related to socioeconomic status, obesity, and young adults (Higgins et al., 2022).

Search terms will include combinations of keywords and Medical Subject Headings (MeSH), such as:

- “socioeconomic status” OR “income” OR “education” OR “occupation”
- “obesity” OR “overweight” OR “body mass index”

- “young adults” OR “early adulthood” OR “18–35 years”
- “United Kingdom” OR “UK” OR “England”

Searches will be limited to studies published in English between 2010 and 2025 to ensure relevance to current public health contexts

Inclusion Criteria

Studies will be included in the review if they meet the following criteria:

- Focus on young adults aged 18–35 years.
- Examine the relationship between socioeconomic status and obesity or overweight.
- Conducted within the United Kingdom.
- Employ quantitative, qualitative, or mixed-methods research designs.
- Published in peer-reviewed journals or credible grey literature sources.

Exclusion Criteria

Studies will be excluded if they meet any of the following criteria:

- Focus exclusively on children, adolescents, or older adults above 35 years.
- Conducted outside the United Kingdom.
- Do not explicitly measure socioeconomic status or obesity outcomes.
- Editorials, opinion pieces, or non-empirical studies without primary data.

Study Selection Process

The PRISMA framework will be used in the study selection process to guarantee reproducibility and transparency (Page et al., 2021). Database searches will yield titles and abstracts that will be compared to the inclusion and exclusion criteria to determine their relevance. After then, full-text publications of research that might be

qualified will be obtained and evaluated for inclusion. According to Higgins et al. (2022), any disputes that arise during the selection process will be settled by discussion and reference to the study's objectives. The number of studies found, screened, included, and removed at each phase will be documented using a PRISMA flow diagram (PRISMA, 2020).

Data Extraction

In order to ensure consistency and transparency throughout the evaluation, data extraction will be carried out using a standardised form (Higgins et al., 2022). Key information extracted from each included study will include author, year, study design, sample characteristics, measures of socioeconomic status, obesity outcomes (e.g. BMI or obesity prevalence), and main findings relevant to the review objectives (PRISMA, 2020). Data relating to lifestyle factors and access to healthcare services will also be extracted where reported to support narrative synthesis (Marmot et al., 2020).

Quality Assessment

The methodological quality of included studies will be assessed using appropriate critical appraisal tools (Higgins et al., 2022). The Critical Appraisal Skills Programme (CASP) checklist will be used to evaluate quantitative research, and the CASP qualitative tool will be used to evaluate qualitative studies (CASP, 2018). Key quality domains, including study design, sampling methods, measurement validity, and risk of bias, will be evaluated systematically (Harden et al., 2018). As opposed to completely excluding research, the results of quality assessments will be used to guide the interpretation of the findings (PRISMA, 2020).

Proposed Data Analysis Technique

Data extracted from the included studies will be analysed using a thematic analysis, which is appropriate for systematic reviews where heterogeneity in study design, outcome measures, and methodologies is anticipated (Popay et al., 2006).

Narrative synthesis enables structured comparison of findings across studies and allows integration of quantitative and qualitative evidence within public health research (Harden et al., 2018). Quantitative findings will be summarised by identifying patterns in the association between socioeconomic status indicators (income, education, occupation) and obesity outcomes such as body mass index (BMI) and obesity prevalence (McLaren, 2007).

Where possible, effect directions and strength of associations will be compared across studies to identify consistent trends (Higgins et al., 2022).

Qualitative findings will be thematically analysed to explore how lifestyle factors, including diet, physical activity, smoking, alcohol consumption, and psychosocial stress, mediate the relationship between socioeconomic status and obesity (Moore et al., 2020).

Themes will be organised under conceptual categories aligned with the social determinants of health framework (Marmot et al., 2020). Findings related to access to healthcare and weight management services will be synthesised to identify socioeconomic patterns in service utilisation and perceived barriers to care (NHS England, 2023). The integration of quantitative and qualitative findings will support a comprehensive understanding of the socioeconomic mechanisms influencing obesity among young adults (Swinburn et al., 2019).

Reporting the Review

The systematic review will be reported in accordance with the PRISMA 2020 guidelines to ensure clear and transparent presentation of methods and findings (Page et al., 2021). A PRISMA flow diagram will be used to summarise the study selection process. Findings will be reported using narrative synthesis, with quantitative results summarised descriptively and qualitative findings reported thematically in line with the review objectives (Popay et al., 2006).

Ethical Considerations

This study is not subject to official NHS ethical approval because it is a systematic literature analysis and does not directly involve human subjects (Health Research Authority, 2023). However, ethical principles related to academic integrity, transparency, and responsible research conduct will be strictly adhered to throughout the review process (British Sociological Association, 2017). All included studies will be appropriately cited using Harvard referencing to acknowledge original authorship and avoid plagiarism (University of Wales Trinity Saint David, 2024). Care will be taken to accurately represent study findings without misinterpretation or selective reporting, ensuring balanced and unbiased synthesis of evidence (PRISMA, 2020). Potential conflicts of interest reported in included studies will be noted and considered during interpretation of findings (Higgins et al., 2022). Data management will comply with institutional guidelines for research governance and information handling, ensuring secure storage of extracted data and review documents (UK Research Integrity Office, 2020).

Implications of the Research

The results of this systematic review are anticipated to have a significant impact on public health practice, policy, and future research in the United Kingdom (Marmot et al., 2020). By synthesising evidence on socioeconomic inequalities in obesity among young adults, this study will contribute to a clearer understanding of how structural and behavioural factors interact to influence health outcomes (Drewnowski, 2018). The identification of key lifestyle mediators may inform the development of targeted interventions that address diet quality, physical activity, and stress management within socioeconomically disadvantaged populations (Public Health England, 2021). Insights into inequalities in access to healthcare and weight management services may support service redesign to improve accessibility and uptake among young adults from lower socioeconomic backgrounds (NHS England, 2023).

The findings may also inform local and national strategies aimed at reducing health inequalities, aligning with the objectives of the NHS Long Term Plan and the Marmot Review (NHS England, 2019; Marmot et al., 2020). From a research perspective, the review will highlight gaps in existing evidence, particularly in relation to longitudinal studies and intervention research focused on young adults (Hillier-Brown et al., 2019). These implications support the relevance of the proposed dissertation research and its potential contribution to public health and social care practice.

Conclusion

In the UK, obesity is still a major public health concern, and its incidence and consequences among young adults are significantly influenced by socioeconomic disparities. In order to investigate the connection between socioeconomic position and obesity among young adults in the UK between the ages of 18 and 35, this study proposal has presented a thorough literature review. Along with differences in access to healthcare and weight management services, the evaluation will examine how lifestyle factors—such as nutrition, physical activity, smoking, alcohol consumption, and psychological stress—mediate this link. This study intends to synthesize existing information and contribute to a more nuanced understanding of obesity disparities in early adulthood by using a rigorous and transparent methodology that is in line with PRISMA principles. The results are anticipated to influence public health policy, direct focused interventions, and assist initiatives to lessen socioeconomic health disparities throughout the life course.

Gantt Chart

Research Activity	Week 1–2	Week 3–4	Week 5–6	Week 7–8	Week 9–10	Week 11–12	Week 13–14	Week 15–16
Ethical Approval								
Research topic & objectives								
Search strategy & keywords								
Database searching								
Screening titles and abstracts								
Full-text review & assessment								
Quality appraisal								
Data extraction								
Data synthesis								
Drafting findings & discussion sections								
Final writing & submission preparation								

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