



Introduction to Research (Bmhp5005_Lon)

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Literature Review

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1.0 Introduction to the Research

1.1 Introduction

This research is about the childhood obesity in UK which will focus on the risk factors and intervention in prevalence and preventing the problem including the environmental factors, family intervention, the role of religion setting and socioeconomic factors.

1.2 Background to the problem

According to NHS 'Obesity is excessive fat accumulation results from an imbalance between energy consumption and energy expenditure, usually it happens gradually by taking in more energy than the body burns over time and those extra energy is stored as body fat' (NHS, 2019). The obesity in children describes children who have a lot of body fat in their bodies. Childhood obesity is one of the most serious public health challenges of the 21st century in the world. Thus, younger generations are becoming obese at earlier ages and staying obese for longer, in United Kingdom, it nearly a third of children aged 2 to 15 are obese (Johnson et al, 2015). Whereby 1 in 3 children leaving primary school are living with obesity (NHS Digital, 2019). There are several factors that can cause obesity in children, including environmental factors, lifestyle preferences, cultural environment, and socioeconomic factors. However, childhood obesity can severely affect children's physical health, social, emotional well-being, and self-esteem which lead to serious health problems such as, type 2 diabetes, cardiovascular disease, liver, cancer, and respiratory disease (Barakat, 2019).

1.3 Research question

What are the risk factors and interventions of childhood obesity?

1.4 Aims and objectives

The aim of this research is to explore childhood obesity in UK by exploring the environmental factors, family intervention, the role of religion setting and socioeconomic factors in prevalence and preventing childhood obesity in UK.

2.0 Research Methodology

2.1 Search terms

The key words used to search for the literature in this research were childhood obesity, Islamic religious settings, household routines, socioeconomic influence, childcare setting, Health behaviour, Family interventions, child protection, Media influence, Childhood obesity prevention

2.2 Data sources

The articles for literature review of this study came from different search engines including Elsevier, PMC, ProQuest, EbScoHost, PLoS One, Wiley Online Library, BMC Public Health, BMC Medicine, The British Journal of Social Work, SAGE journals

2.3 Data collection methods

This is Secondary Research which based on Systematic literature Review of 12 articles on obesity in children. However, these articles collected their data from different methods of data collection including, interview, questionnaires, focus groups and records.

2.4 Inclusion and exclusion criteria

The literature review based on article from year 2015 to present because childhood obesity is most serious public health challenges of the 21st century in the world, so most of the article talked about childhood obesity have been written in 2015. Therefore, there the study do not included the article below 2015. Also, the study focused on the childhood obesity on children age from 0-16 years old and not included adult obesity. Moreover, the literature review based on United Kingdom, however some of the article based on United States of America, Canada, and Austria because they are relevant to the topic.

2.5 Data summary table of journal articles

Author and title	Research Questions or Research Objectives	Methods and Sample	Evaluation of the Article
Dogra et al, (2021)	Islamic religious settings (IRS) intervention.	Interviews 20 parents and 20 Islamic leaders. Focus group of 26 managers and workers in Bradford and Birmingham.	Islamic religious setting after school helped in obesity prevention. However, not all Islamic children are attending IRS after school, because each family believed on their own culture, and the culture may play a big role in influencing obesity and hinder the prevention of it to the children. Also, not all the South Asian community members and Islamic leaders have knowledge of using IRS for obesity prevention because most of them use mosques only for daily ritual worship. Also, as research based on focus groups, it may cause fewer open conversations.
Anderson et al, (2017)	Household routines and self-regulation	Parent-report with the Child Social Behaviour Questionnaire.	Consistent regular mealtime bedtime routine, and 1 hour time on watching video and television on 3 years old have huge benefit to the physical and emotional wellbeing of the children which help to prevent childhood obesity on 11 years old.

Goisis et al, (2019)	Divide between advantaged and disadvantaged families	Records from the Millennium Cohort Study of children born in 19,244 families in 2000-2002 from September 2000 in England and Wales, and 1 December 2002 in Scotland and Northern Ireland.	This study shows important variation by ethnicity in the link between socioeconomic position and child obesity in the United Kingdom. However, it did not grasp for children from ethnic minority groups. Also, the sample sizes of the ethnic groups examined in this study are small which could result in some coefficients not being precisely estimated
Griffiths et al, (2019)	health service operation on childhood obesity	Records from 3269 children (1678 boys; 51.3% [weighted]) living in Wales or Scotland at age seven whose parents agreed to record linkage.	For children with obesity starting primary school did not increased hospital admissions in early adolescence and childhood. However, it not included BMI measures, it only used weight and height measurements at age five to classify as obese.
Lidgate et al, (2018)	Parents losing control over the child's feeding and activity levels	Focus groups with a total of 14 participants (7 parents and 7 informal caregivers) in Birmingham and Edinburgh.	The study had small number of participants that not enough to make policy. Also, it was not including obese children, and conducted on informal care (grandparents) only, so it should include children with obesity and other form of care because gaining opinions from many sources would help approval and accomplishment of the future intervention.
Wilding (2020)	Geographical inequalities in obesity prevalence	Records of antenatal and birth data at University Hospital Southampton related to school-measured weight and height data for 14,084	The study analysed at the Lower and Middle layer Super Output Area as the factors influenced obesity and excluded paternal factors, maternal diet in pregnancy, parental diet and physical activity, family income, and child's diet, that the study was not

		reception children at ages 4–5 and 5637 year six children at ages 10–11 within Southampton.	included. Also, it did not include the parents, also the children from other year/class (year 1-5). However, it is relevant to healthy promotion and policy making because it is going to help the public health practitioner on implementing obesity education strategies.
LeBlanc et al, (2015)	Social media involvement on childhood obesity	Focus group and data (5844-55.6% is boys average age 10.4)	The study was limited to children 9–11 years of age which limits the generalize other age sets and relied on children only. Therefore, it would have been helpful to ask both the children and parents to report on time spent in screen time to know their perspectives.
Wong et al, (2017)	Father involvement in preventing childhood obesity	Records from Early Childhood Longitudinal Study–Birth Cohort (ECLS-B) from age 2 and age 4 children.	Fathers who frequency taking their children, from age 2 to age 4. outdoors and participation in active childcare there is lower risk of their children to become obese. However, the study sample included fathers who were not the primary caregivers.
Nelson et al, (2020)	Parent neglect and children protection	Semi-structure interview (23 health professionals) and focus groups with key professional stakeholders, from social care, health and education	If parent fail to provide or participate in treatment, childhood obesity can become a child protection concern. However, The sample size was limited, it is very important to increase participation of school teachers and health visitors.
Povey et al, (2019)	Family intervention in preventing childhood obesity	Interview (10 families)	The method used is not relevant for the participant because the use of interview can lead to less open conversations. The questionnaire could be relevant method for this

			research.
Nemecek et al, (2017)	Parent perception on childhood obesity.	The research included 600 children ranging in age from 0 to 14 years Questionnaire on comprising items relating to parental weight and social demographics	Because parents requested to provide information on their children's weight and height, as well as their projected weight status on questionnaire which were easy for them to provide false information. Therefore, observation could be relevant method for this research.
Schroeder et al, (2021)	Association between Childhood experience and childhood obesity	Data Records	Adverse childhood experiences are associated with obesity during childhood, though the association is not consistent across ACEs or populations.

3.0 Literature Review

3.1 Existing literature on the topic

Article 1

Examining Islamic Religion Setting (IRS) methods in tackling obesity. South Asian Muslim parents and Islamic leaders in Bradford and Birmingham considered that reference to Quranic scripture and life of the Prophet Muhammad (as a role model) offer opportunities for teaching children about healthy eating and physical activity. The analysis is fundamental to the topic which identifying the intervention of IRS in formulating plans in tackling obesity among children (Dogra et al, 2021).

Article 2

The household routines of having regular bedtimes and mealtimes and limits on television or video viewing were associated with better emotional self-regulation in 3-year-old children, hence lack of a regular bedtime and poorer emotional self-regulation at age 3 were independent predictors of obesity at age 11. There is an inherent link between good routines and better eating habits to help combat the issues of obesity in the UK. The analysis shows that following these simple programmes can lead to substantial changes which can make a difference (Anderson et al, 2018).

Article 3

This article explored the family socioeconomic position and the prevalence of child obesity from various ethnic group based on family financial status. The literature explains that the children from lower income

household are more becoming obese at earlier age and staying obese for long than those in high income households. The article is relevant to the topic because the link between socioeconomic position and child obesity in the United Kingdom are high for some groups of ethnic minority children (Goisis et al, 2019).

Article 5

The study provided potential explanations for the evidenced link between informal care and childhood obesity in British children aged 0–5 years whereby most of informal carers are grandparents who identified to provide practical, emotional, and financial support for the family. therefore, the future childhood obesity prevention interventions should target them by involving them in routine antenatal and postnatal appointments that will help them to support the parents, and to prevent obesity in the children in their care. The study is useful for analysing the relationship between childcare and childhood obesity and providing intervention ideas and strategies for preventing obesity in children (Lidgate et al, 2018).

Article 6

Examine geographical inequalities in obesity prevalence among children. The study analysed at the Lower- and Middle-layer Super Output Area that indices walkability, relative density of unhealthy food outlets, spaces for social interaction, natural greenspace coverage, supermarket density and measures of air pollution. Thus, the amount of greenspace in the local area at birth is negatively associated with the risk of becoming affected by obesity at the end of primary school, even in those children who potentially have a change in exposure to greenspace after birth. This study is relevant to healthy promotion and policy making because it is going to help the public health practitioner on implementing obesity education strategies (Wilding, 2020).

Article 7

The screen media exposure is one of the most well-documented causes of childhood obesity. The study looked on the relationships between overall sedentary time (SED) and screen time (ST) in children. Therefore, many common relates to SED and ST were discovered, whereby some are easily adaptable, such as removing TV from the bedroom, but other may need more interventions like increasing physical activity. This study clearly shows there are evident links between children media screen time and obesity. (LeBlanc et al, 2015).

Article 8

Although fathers have been more involved in childcare, their shifting role in childhood obesity has received less attention. This research looked at the relationship between changes in obesity in 2 to 4 years children and changes in fathers' longitudinal participation in child raising. Increased participation of fathers in certain areas of childcare may be linked with a reduced risk of childhood obesity. Encouraging fathers to become more involved in child rearing and including fathers in childhood obesity prevention initiatives may help decrease obesity risk in children (Wong et al, 2017).

Article 9

The research explored the decision-making, experiences and views of multi-agency working, personal and professional standpoint who working with obesity and the child protection system by demonstrating the tensions surrounding a child protection paradigm which impact on individual and agency practice, potentially inhibiting the support offered to service users. This study is applicable to the topic because it provides the link between child protection and obesity (Nelson et al, 2020).

Article 10

The number of local and national childhood obesity programmes have been developed for those children with obesity, but the challenge is often how to recruit families to these programmes. Therefore, to prevent childhood obesity family support is very important. This research article helps to understand how the families can be easier to get involved in or keep in the program (Povey et al, 2019).

Article 11

The article suggested that parental misperception may play a role for children obesity. It observed that parents of overweight children tend to underestimate their children's weight status when compared to parents of normal-weight children. This study provides important connection for children who were born with a greater birth weight and children of overweight parents (Nemecek et al, 2017)

Article 12

The study examined the relationship between Adverse childhood experiences (ACEs) and childhood obesity. Thus, ACEs increase the risk for the development of obesity in childhood which related impairment in self-regulation and appetite, psychopathology, and disruptions within family microsystems. With a better knowledge of how ACEs affect childhood obesity, research, clinical practise, and policy may be adjusted to promote the safety, well-being, and long-term health of children who have ACEs and obesity (Schroeder et al, 2021).

3.2 Identify gaps in the literature

Article 1: The findings are specific to IRS in areas of large South Asian populations in the UK (Bradford and Birmingham) but may not reflect the views of South Asian populations in smaller areas (Dogra et al, 2021).

Article 2: More research is needed on how and whether the timing and regularity of children's mealtimes impacts obesity risk. Inconsistent mealtimes could, for example, be associated with a confounding factor such as greater family participation in physical activity, or always having regular mealtimes could be associated with eating meals later in the evening (Anderson et al, 2017).

Article 3: the sample sizes of the ethnic groups examined in this study are small which could result in some coefficients not being precisely estimated. So, there is the need for another research which will include all ethnicity group in UK (Goisis et al, 2019).

Article 4: The gap between advantage and disadvantage households in clinical obesity continues to widen inconsistent hospital admissions for child with obesity. Therefore, new analysis has been applied in hospital admissions for child with obesity (Griffiths et al, 2019).

Article 5: The study was about the obesity in children, but it was not including obese children that not enough to make policy (Lidgate et al, 2018)

Article 6: The study talked about the childhood obesity but did not include the parents of the children with obesity. Also, it was focus on the children of Reception and year six only and not included the children from other year/class, such as year 1-5 (Wilding, 2020).

Article 7: The study was limited to children 9–11 years of age only which limits the generalize other age sets (LeBlanc et al, 2015).

Article 8: the study sample included fathers who were not the primary caregivers (Wong et al, 2017).

Article 9: The sample size was limited, so it is very important to increase participation of school teachers and health visitors (Nelson et al, 2020).

Article 12: Adverse childhood experiences are associated with obesity during childhood, though the association is not consistent across populations.

3.3 Limitations of the research

Article 1: the researchers collected data from focus group this might have presented social desirability and less open or frank conversations. Also, most of South Asian community members and Islamic leaders in the UK have not enough knowledge of mosques, especially as intervention to prevent childhood obesity, because they are using mosques only for daily ritual worship (Dogra et al, 2021).

Article 2: The study designed to be representative of children born early in the new millennium and living in the UK as infants, and findings may not be generalizable to earlier or later born cohorts or children in other countries. Also, measurement of television and video viewing was imprecise and did not include time spent using computers. (Anderson et al, 2017).

Article 3: The study show white children of lower socioeconomic position are obese than children of higher socioeconomic position, but it did not grasp for children from ethnic minority groups. Also, the data they used in this study does not provide evidence on the children's daily calories' intake, if the foods are home cooked, and the parent's perception on healthy food and weight (Goisis et al, 2019).

Article 4: The research had not included Body Mass Index (BMI) measures, it only used weight and height measurements at age five to classify as obese (Griffiths et al, 2019). So, it is important to include BMI as the World Health Organization the most common method of measuring obesity is BMI (World Health Organization, 2016).

Article 5: The study had small number of participants, 14 participants (7 parents and 7 informal caregivers) in Birmingham and Edinburgh and conducted on informal care (grandparents) only, so it should include

enough number of children with obesity and other form of care because gaining opinions from many sources would help approval and accomplishment of the future intervention (Lidgate et al, 2018).

Article 6: The study analysed at the Lower- and Middle-layer Super Output Area as the factors influenced obesity and excluded paternal factors, maternal diet in pregnancy, parental diet and physical activity, family income, and child's diet, that the study was not included. Also, it did not include the parents (Wilding, 2020).

Article 7: The research relied on children only, so it would have been helpful to ask both the children and parents to report on time spent in screen time to know their perspectives (LeBlanc et al, 2015).

Article 9: The research was in one geographical area and could be limited by findings (Nelson et al, 2020).

Article 10: The method used is not relevant for the participant because the use of interview can lead to less open conversations. The questionnaire could be relevant method for this research (Povey et al, 2019).

Article 11: Because parents requested to provide information on their children's weight and height, as well as their projected weight status on questionnaire which were easy for them to provide false information. Therefore, observation could be relevant method for this research (Nemecek et al, 2017).

4.0 Secondary Data Analysis:

4.1 Findings: Thematic analysis

Obesity is influenced by family socioeconomic position which led to the division between advantaged and disadvantaged families. The children from poorer settings can be obese, due to lower levels of physical activity and dietary behaviours, than children from more advantaged (Goisis et al, 2019). There is also evidence that children of ethnic minority parents in the United Kingdom have higher rates of obesity than children of White parents (Zilanawala et al. 2015). Thus, it is possible that ethnic minority children show higher rates of obesity because of the socioeconomic disadvantages they endure, as because their family do not have enough income to buy health food instead most of the time their family buy food that they can afford no matter the calories and fat included in the foods, and most of these foods are fast foods and drinks (Goisis et al, 2019).

Also, association between Informal childcare and obesity in children. As most of the British based on the informal cares (grandparents), usually there are inconsistent views between grandparents and healthcare professionals on approval of healthy feeding practices, such as breastfeeding and baby-led weaning because. As grandparents frequently care for many children of different ages, they can influence parents with out-dated knowledge due to personal experience or because they may be encouraging early initiation of solids to make mealtimes easier to them (Lidgate et al, 2018).

Moreover, family involvement, and behavioural conception and misconception. Hence, family background can influence the growth of obesity, whereby parenting techniques may impact the ability of a child to control intake and enhancement of food preferences (Povey et al, 2019). Therefore, parents and other family members organize a familiar and shared atmosphere that can be beneficial to overeating. Thus, family members act as an example to reinforce and maintaining eating and exercise behaviours (Wong et al, 2017).

Nonetheless, cultural, and religious awareness are an appropriate means for obesity prevention initiatives. Using the Islamic ideas about healthy diet will help break down barriers in helping with the compliance of the methods towards advocating healthier behaviours. Therefore, learning Islamic descriptions on prophet Mohammad food habits, physical fitness and sleeping patterns are an example for the children to live an ideal healthy life (Dogra et al, 2021)

4.2 Synthesis of your findings to the research questions or research aim and objectives

Parents losing influence on the child's nurturing and activity levels. Because the parents relied on grandparent's care, they felt that they have less capability to influence grandparents' feeding methods, thus as they felt indebted to their carer. Therefore, whatever the grandparents want to feed the children whether it is suitable or not for their health, the parents do not have voice on it (Lidgate et al, 2018)

Also, Consistent regular mealtime bedtime routine, and limited time on watching video and television have huge benefit to the physical and emotional wellbeing of the children which help to prevent childhood obesity in future (Anderson et al, 2018).

Moreover, the amount of greenspace in the local area at birth is adversely related to the risk of becoming obesity at the end of primary school. However, increasing access to greenspace during pregnancy and early years can be intervention (policy-level) targeted early inhibition of childhood obesity (Wilding, 2020).

Nevertheless, there are evident links between children media screen time and obesity. Many frequent correlates of SED and ST were found in this worldwide sample, which are readily changeable by removing TV from the bedroom, however, others need more intensive behavioural interventions by increasing physical activity. These results must be used in the creation of culturally relevant public health messaging in the future (LeBlanc et al, 2015).

5 Conclusion

The childhood obesity is among the long-term health challenges in UK. Therefore, to prevent the problem, the exploring of the environmental factors, family intervention, the role of religion setting and socioeconomic factors should be involved.

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