

## Teachers' Perception of Physical Activity on Obesity in Early Childhood Education in Benue State, Nigeria

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### Abstract

This study examined the teacher perception of physical activity on obesity in early childhood education in Benue State, Nigeria. Simple random sampling technique was used to select one hundred and fifty (150) preschools teachers as respondents for the study. The instrument used for this study was adapted and modified instrument. Data collected was analyzed using simple percentages and frequency counts. The findings of this revealed that greater percentage of the respondents indicated that obesity is a condition of excess unhealthy fat in the body, and also means excess body weight which shows that the preschool teachers possess high level of knowledge of the concept of obesity. The study also revealed that greater percentage of the respondents indicated that excess consumption of carbohydrate foods cause obesity and lack of spending too little time doing physical activities are some of the causes of obesity in children which shows that the preschool teachers possess a high level of knowledge regarding causes of obesity. The study further revealed that greater percentage of the respondents indicated that engaging in physical activity improves blood pressure and aerobic fitness and engaging in physical activity helps to maintain and achieve a healthy body weight in children which shows that the preschool teachers possess a very high level of knowledge on the benefits of physical activity as a remedy for obesity. The study therefore recommendation that children should be discouraged from eating meals or snacks while watching TV. Eating in front of the TV may make it difficult to pay attention to feelings of fullness and may lead to overeating among others.

**Keywords:** Teachers' Perception, Physical Activity, Obesity and Early Childhood Education.

### Introduction

Early childhood experiences are thought to be critical for children's well-being and lifelong learning (Neuman & Powers, 2021). Thus, Pierce (2021), citing the World Health Organization (WHO), stated that investing in ECD is one of the best methods for a country to increase its economic growth, and prosperity, eliminate social inequities, and have fair

chances. ECD is the only effective strategy for improving results for children throughout their schooling and ensuring a smooth transition into adulthood. Children benefit the most from stimulating and supportive care in early childhood, which ensures quality early childhood education with interactive teachers, safe and stimulating environments, and access to materials for children before entering primary school (Britto et al., 2017). As indicated by advancements in basic and intervention science, Britto et al. (2017) discovered that early childhood is a period of exceptional sensitivity to improve the development of children's early experiences for healthier adulthood in the future. This is only possible if early childhood development interventions are expanded.

The government of Nigeria is committed to providing the foundation for all children to have access to high-quality early childhood education and care, with a focus on children in vulnerable communities, but studies have shown that the majority of the early childhood education centres in Nigeria are own and operated by private proprietors (Njoku, 2022). The right to education is, among other things, recognized in the National Policy Education, the Declaration of the Rights of the Child, and numerous other policy declarations around the world. The government recognised that the realisation of the goals of universal availability and equitable access to quality early childhood development services for all children in Nigeria requires enough functional early childhood development centres and programmes which are appropriately spread out to be within safe and reasonable physical reach of all children (Okeke & Thomas, 2024). Research findings have shown that good quality ECCE programmes provide a wide range of benefits for children, families, and communities and facilitate children's social, emotional, nutritional, and health development (Okeke & Thomas, 2024).

In 2022, an estimated 37 million children under the age of 5 years were overweight. Once considered a high-income country problem, overweight is on the rise in low- and middle-income countries. In Africa, the number of overweight children under 5 years has increased by nearly 23% since 2000. Almost half of the children under 5 years who were overweight or living with obesity in 2022 lived in Asia and over 390 million children and adolescents aged 5–19 years were overweight in 2022. The prevalence of overweight (including obesity) among children and adolescents aged 5–19 has risen dramatically from just 8% in 1990 to 20% in 2022. The rise has occurred similarly among both boys and girls: in 2022 19% of girls and 21% of boys were overweight. While just 2% of children and adolescents aged 5–19 are said to be obese in 1990 (31 million young people), by 2022, 8% of children and adolescents were living with obesity (160 million young people) (World Health Organization, 2024).

According to Chukwurah et al (2018), obesity is the act of being very fat, in a way that is not healthy. There is a certain amount of body fat necessary for storing energy, heat insulation, shock absorption and other body functions, but when an individual possess body fat beyond the amount needed, the individual is said to be obese. WHO (2015) defined obesity as a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. Nigeria Female Obesity prevalence study (2015) stated that

obesity is an abnormal or excessive fat accumulation that presents a risk to health. In consonance with the authors, obesity occurs when an individual possesses more body fat than required for healthy living. Population measure of obesity is the body mass index (BMI); a person's weight (in kilograms) divided by square of his/her height (in metre). A person with a BMI of 30 or more is generally considered obese while a person with a BMI equal to or more than 25 is considered overweight. There are many predictors of obesity.

Obesity as a health condition can be caused by several factors and lifestyle. Globally, fundamental causes of obesity and overweight is an energy imbalance between calories consumed and calories expended; an increased intake of energy-dense foods that are high in fat; and increased in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization. With the advent of television, computers, video games, remote controls, washing machines, dish washers and other modern convenience devices, majority of people live sedentary lifestyle which is a major predictor of obesity. Chukwurah et al (2018) listed different factors that can lead to obesity and they include; genetics, overeating, slow metabolism, physical inactivity, psychological factors (some people tend to eat excessively in response to emotions such as boredom, sadness, stress or anger), medications, diseases (such as insulin resistance, hypothyroidism, polycystic ovary syndrome, etc), and age (ageing comes with muscle loss which can slow down the rate at which the body burn calories and if caloric intake is not reduced, there will be weight gain).

Obesity has several devastating effects on humans. When one is obese according to Kushner (2007), there is high degree of susceptibility to gout, gallbladder disease, high blood pressure, diabetes, joint problems, sleep apnea, respiratory problems, cancer and psychological imbalance such as feeling of discrimination. Some effects of obesity on the health of the obese include; more cancers, infertility, pre-term birth rate, less shuteye, tough love and medical gap. Agreeing with the author, obesity which has to do with having excess body fat can lead to numerous health challenges and lead to poor health among the individual, then giving rise to health-related diseases. Also, obesity affects the physical appearance of the obese as such creating the sense of being unattractive and low self-esteem. Engaging in physical activities regularly is a successful way of handling obesity. To Hardman (2009), engaging in physical activity improves health and wellbeing; reduces stress, strengthens the heart and lungs, increases energy levels, helps to maintain and achieve a healthy body weight, and improves one's outlook on life. Engagement in regular physical activity is essential for the accomplishment of daily tasks with greater ease and comfort, and with less fatigue. In the opinion of Chiles & Wattum (2010), participating in physical activity helps participants to burn calories and reduce body fat, control and maintain ideal weight, improve fitness and ability to perform daily activities, prevent diseases, and reduce appetite. Obesity also can be treated through a combination of social changes and choices such as changes to diet.

According to Zain et al (2021), physical activity can be defined as any limb movement that can increase energy production that involves all body movements such as sitting, getting

up, walking, and jumping whether for exercise, recreation, or competition purpose and to improve an individual's health status, a person must be physically active, requiring that individual fitness can be improved overall. Physical activity has positive biological and psychological impacts on the brain and cognitive performance, as well as promoting a feeling of well-being (Mandolesi et al., 2018). This does not directly have a beneficial effect on children's academic performance for unrestrained physical activity activities. Children who need this physical activity must not be awkward in a variety of activities throughout the development and growth of the child to any time. Physical activity is fundamental to the early development of every child and affects many aspects of their health. Physical activity also gives benefits to children's health in the short and long term that are important in the physical, emotional, social, and cognitive domains throughout their lifetimes (Zeng et al., 2021)

Early childhood is a critical window of opportunity to develop physical competence and support physical activity (PA). Parents/carers are principal gatekeepers for children's PA in the early years (Rhodes & Lim, 2018). Early childhood is a key stage in a child's life to nurture healthy, active behaviours and acquire sufficient motor skills to enhance physical competence and positively influence future physical activity (Agard et al., 2021; Burdette & Whitaker, 2005). Parents are the gatekeepers of a preschooler's PA, acting as primary socialization agents and young children rely on them for PA opportunities. National and international studies indicate that three- to five-year-old children do not reach the moderate-to-vigorous physical activity (MVPA) recommendations of minimum 60 minutes per day. Physical activity (PA) during childhood has a positive effect on cardiometabolic risk and other health markers (WHO, 2020, Poitras et al., 2016), which tracks into adulthood (Lopez et al. 2012).

Physical activity (PA) is an essential part of a growing up healthy for all children. For decades, schools have been considered as ideal venues to support children to regularly engage in PA. Supporting schools to fulfill their role in promoting PA should therefore be considered a public health priority. In line with this understanding the WHO advocated the investment in the 'creation of active people' and 'active systems' (WHO, 2018). Both strategies have a clear relationship with the promotion of PA in schools: stimulating and facilitating children to engage and enjoy PA in the early years of their lives within the school context is important for a healthy society, both on the long and the short term. Physical activity offers immense benefits to preschool children, such as helping them develop and maintain healthy musculoskeletal tissues, cardiovascular systems, body weight as well as improving their mental health by reducing depression, anxiety, and stress (Kparev et al, 2022). It positively impacts children' academic achievements, overall quality of life, and also assists in their social development by providing opportunities for self-expression, improving self-confidence, social interactions, and integration (Kparev et al, 2022).

Obesity in childhood is one of the most serious public health challenges of the 21st century, having multiple adverse health consequences. However, early childhood is an important

time frame that should be targeted by preventive strategies intended to reduce body fat, and consequently, decrease the risk of noncommunicable diseases. Although obesity is a multifactorial disease, it mainly results from an imbalance between energy intake and energy expenditure. The most modifiable component of energy expenditure is physical activity (PA), being a substantial factor affecting the energy balance equation and increasing evidence suggests that declining levels of PA are a major factor for the higher prevalence of overfat children (Wyszyńska et al, 2020). Meanwhile, the WHO and most public health authorities around the world recommend that children aged 5–17 years should accumulate at least 60 min of moderate-to-vigorous PA (MVPA) daily but in most public health guidelines worldwide, the minimum recommendation of 60 min of MVPA is associated with 10,000–14,000 free-living steps/day in preschool children (approximately aged from 4 to 6 years of age) (Wyszyńska et al, 2020). Although there is substantial evidence that PA provides significant health benefits to young people, in most European countries, less than 50% of children and adolescents meet these recommendations.

### **Statement of the Problem**

The literature shows that there is an inverse relationship between the level of PA and obesity status in school-age children. Obesity also affects the general wellbeing of the obese thereby hindering optimal good health. In spite of these negative effects, there are numerous ways obesity can be effectively handled. Engaging in physical activities regularly is a successful way of handling obesity. Engaging in physical activity improves health and wellbeing; reduces stress, strengthens the heart and lungs, increases energy levels, helps to maintain and achieve a healthy body weight, and improves our outlook on life. Engagement in regular physical activity is essential for the accomplishment of daily tasks with greater ease and comfort, and with less fatigue. Participating in physical activity seem to help participants to burn calories and reduce body fat, control and maintain ideal weight, improve fitness and ability to perform daily activities, prevent diseases, and reduce appetite. Despite the many well-known benefits of regular PA, like physical and mental health, schools struggle with the structural implementation of PA. During the last years, more attention has been paid to benefits that are closely related to academic performance. Such as better cognitive performance, improved classroom behaviour and school attendance. The WHO recommends that schools should provide quality physical and health education that supports adolescents to develop healthy behavior patterns that will keep them physically active throughout their lives.<sup>1</sup> In keeping with this recommendation Nigeria developed a National School Health Policy in 2006, which proposes practising physical activities for the health, academic, and remediable problems (e.g., sleep problems, substance use) of school adolescents. However, very little is known on the implementation of this policy in preschools. It seems that the overall physical activity levels preschools in Benue State, Nigerian are low. It is against this background that this study examined the teacher perception of physical activity on obesity in early childhood education in Benue State, Nigeria.

### Purposes of the Study

The general purpose of this study is to examine the teacher perception of physical activity on obesity in early childhood education in Benue State, Nigeria. Specifically, the study is set to:

- i. examine the perception of teachers on the concept of obesity in preschools in Benue State, Nigeria.
- ii. identify the perception of teachers on the causes of obesity in preschools in Benue State, Nigeria.
- iii. determine the perception of teachers on the benefits of physical activities as a remedy for obesity in preschools in Benue State, Nigeria.

### Research Questions

The following research questions are posed to guide the study.

- i. What is the perception of teachers on the concept of obesity in preschools in Benue State, Nigeria?
- ii. What is the perception of teachers on the causes of obesity in preschools in Benue State, Nigeria?
- iii. What is the perception of teachers on the benefits of physical activities as a remedy for obesity in preschools in Benue State, Nigeria?

### Methodology

The study adopted a descriptive survey research design where questionnaire was used to acquire information from a sample of individuals through their responses to questions and also allows for a variety of methods to recruit participants, collect data, and utilize various methods of instrumentation necessary data for the research work. Population comprises of all teachers in Makurdi Metropolis of Benue State. The researchers decided to use only Makurdi Metropolis due to insecurity in some parts of the State. Simple random sampling technique was used to select one hundred and fifty (150) preschools teachers as respondents for the study. An adapted and modified instrument from Chukwurah et al (2018) was used for data collection. The questionnaire contained items on the main title of the study. Data collected was analyzed using simple percentages and frequency counts.

### Results

**Research question 1:** What is the perception of teachers on the concept of obesity in preschools in Benue State, Nigeria?

**Table 1:** Perception of Teachers on the Concept of Obesity

S/ N	Items	N	Agree (A)	Disagree (D)	Remark
1	Obesity means excess body weight	150	94(62%)	56(37%)	Agree
2	Obesity is being unhealthily fat	150	102(68%)	48(32%)	Agree
3	Obesity is a condition of excess fat in the body	150	91(61%)	59(39%)	Agree
4	medical condition	150	84(56%)	66(44%)	Agree
Average		62%			

**Source:** Field Work, 2024.

Results in table 1 revealed that greater percentage of the respondents indicated that obesity is a condition of excess unhealthy fat in the body, and also means excess body weight. The average of 62% was recorded from the correct responses which shows that the preschool teachers possess high level of knowledge of the concept of obesity.

**Research question 2:** What is the perception of teachers on the causes of obesity in preschools in Benue State, Nigeria?

**Table 2:** Perception of Teachers on the Causes of Obesity

S/N	Items	N	Agree (A)	Disagree (D)	Remark
1	Genetics	150	42(28%)	108(72%)	Agree
2	Excess consumption of carbohydrate foods	150	128(85%)	22(15%)	Agree
3	Medications	150	79(53%)	71(47%)	Agree
4	Overeating	150	91(61%)	59(39%)	Agree
5	Spending too little time doing physical activities.	150	101(67%)	49(33%)	Agree
Average		56%			

**Source:** Field Work, 2024.

Results in table 2 revealed that the responses of the preschool teachers on the causes of obesity in which 61% of the teachers indicated that overeating cause obesity while 67% of the respondents agreed that lack of spending too little time doing physical activities.is a cause of obesity. An average of 56 was recorded which shows that the preschool teachers possess a high level of knowledge regarding causes of obesity. This implies that early marriage has some form of benefits as indicated by the respondents.

**Research question 3:** What is the perception of teachers on the benefits of physical activities as a remedy for obesity in preschools in Benue State, Nigeria?

**Table 3:** Perception of Teachers on the Benefits of Physical Activities

S/N	Items	N	Agree (A)	Disagree (D)	Remark
1	Engaging in physical activity improves blood pressure and aerobic fitness	150	93(62%)	57(38%)	Agree
2	Engaging in physical activity builds strong muscles and endurance	150	111 (74%)	39(26%)	Agree
3	Engaging in physical activity strengthens the heart and lungs	150	90(60%)	60(40%)	Agree
4	Engaging in physical activity improves increases preschool children energy levels	150	105(70%)	45(30%)	Agree
5	Engaging in physical activity helps to maintain and achieve a healthy body weight	150	86(57%)	64(43%)	Agree
Average		65%			

**Source:** Field Work, 2024.

Table 3 shows the responses of the preschool teachers on the remedy for obesity. The result shows that 62% of the teachers indicated that engaging in physical activity improves blood pressure and aerobic fitness while 57% indicated that engaging in physical activity helps to maintain and achieve a healthy body weight. An average of 65% was recorded which shows that the preschool teachers possess very high level of knowledge on ways of treating obesity.

### Discussion of Findings

Research Question one stated that, what is the perception of teachers on the concept of obesity in preschools in Benue State, Nigeria? The study revealed that greater percentage of the respondents indicated that obesity is a condition of excess unhealthy fat in the body, and also means excess body weight which shows that the preschool teachers possess high level of knowledge of the concept of obesity.

Research Question two stated that, what is the perception of teachers on the causes of obesity in preschools in Benue State, Nigeria? The study also revealed that greater percentage of the respondents indicated that excess consumption of carbohydrate foods cause obesity and lack of spending too little time doing physical activities are some of the causes of obesity in children which shows that the preschool teachers possess a high level of knowledge regarding causes of obesity. This study is in line with the submission of Bhargave (2007) who revealed in his study that genetics, overeating, slow metabolism, physical inactivity.

Research Question three stated that, what is the perception of teachers on the benefits of physical activities as a remedy for obesity in preschools in Benue State, Nigeria? The study revealed that greater percentage of the respondents indicated that engaging in physical activity improves blood pressure and aerobic fitness and engaging in physical activity helps



to maintain and achieve a healthy body weight in children which shows that the preschool teachers possess a very high level of knowledge on the benefits of physical activity as a remedy for obesity. This study is in also in line with the study of Hardman (2009) who reported that engaging in physical activity improves health and wellbeing; reduces stress, strengthens the heart and lungs, increases energy levels, helps to maintain and achieve a healthy body weight, and improves children outlook on life.

## Conclusion and Recommendations

Childhood obesity continues to be a prevalent problem in school-aged children. Physical inactivity can lead to increased obesity and decreased cardiorespiratory fitness in children, putting them at risk for cardio metabolic disorders and other health issues (Pavlovic et al., 2021). This study established that preschool teachers possess high level of knowledge of the concept, causes, ways of treating obesity among preschool children.

## Recommendations

The study therefore makes the following recommendations based on the findings of the study:

- i. Children should be discouraged from eating meals or snacks while watching TV because eating in front of the TV may make it difficult to pay attention to feelings of fullness and may lead to overeating.
- ii. Parents should only buy fewer high-calorie, low-nutrient foods.
- iii. Help children understand that sweets and high-fat treats (such as candy, cookies, or cake) are not everyday foods.
- iv. Children should not be deprived of occasional treats however this can make them more likely to overeat.
- v. Avoid labeling foods as "good" or "bad." All foods in moderation can be part of a healthy diet. vi. Involve children in planning, shopping, and preparing meals. Use these activities to understand children's food preferences, teach children about nutrition, and encourage them to try a wide variety of foods.

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