Opinion of Early Childhood Development Coordinators Regarding Importance of Nutrition for Cognitive Development of Young Children at ECD Level

Sufiya[1], Zakir Abbas[2] and Nazia Karim[3]

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Abstract

It is important to elevate when it comes to kid growth; it is an important factor to consider. The study focused on the "opinion of ECD coordinators and pediatricians regarding the importance of food and nutrition for the cognitive development of young children at the ECD level. Similarly, the main question was: what are the perceptions of ECD coordinators and pediatricians regarding the role of food and nutrition on the cognitive development of young children? Food and nutrition are essential elements of human growth and developmental process? The methodology used to study the opinion of ECD coordinators and ECD pediatricians regarding the importance of food and nutrition for the cognitive development of young children was qualitative, where all the data was collected through interview protocol. Both ECD coordinators and pediatricians carried out the data. As a result of data analysis, the study has generated several findings associated with the importance of food and nutrition for the cognitive growth of young children at the ECD level. It has been found that developmental age children need proper food and nutrition for holistic development of young children. The researchers also added that ignorance of proper food and nutrition at an early age may lead to mental laziness. Proper nutrition affects students' learning; students who are taught proper nutrition can perform well in their studies and be able to make decisions, effectively concentrate, and focus on different things. On the other hand, children who are not given proper nutrition show little interest in their studies, in decision-making, and in concentrating on anything. However, parents, administrators, and ECD coordinators can overcome nutrition-related issues in studies by providing them with good nutrition at school and home. Based on the findings, the recommended to ECD coordinators that they must ensure food related to cognitive development in their lunch plan, and they must encourage homemade lunch in their schools.

Keywords: Proper Nutrition, Food, Cognitive Development, Breastfeeding.

Introduction

Early childhood development coordinators play a crucial role in promoting the importance of nutrition for the cognitive development of young children at the ECD level. They understand that nutrition plays a vital role in supporting brain development, cognitive functions, and overall growth during the early years of a child's life (Dhar, 2023).

Nutrition refers to the intake of essential nutrients, such as vitamins, minerals, proteins, and carbohydrates, that are necessary for the proper functioning and development of the body and brain. In the context of young children at the ECD level, nutrition plays a fundamental role in

[1]*MPhil Scholar, PMAS- Arid Agriculture University Rawalpindi, Pakistan.*
[2]*MPhil Scholar, PMAS- Arid Agriculture University Rawalpindi, Pakistan.*
Email: zakirabbaskhari@gmail.com
[3]*Lecturer, Department of Education, Karakoram International University, Gilgit, Pakistan.*

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shaping their cognitive abilities, including attention, memory, problem-solving, and language skills. Proper nutrition provides the necessary building blocks for brain development, ensuring that children have the energy and nutrients needed for optimal cognitive growth. Nutritional deficiencies or inadequate diets can hinder cognitive development, impacting a child's ability to learn, concentrate, and reach their full potential (Abbas et al., 2023). Early childhood development coordinators recognize the significance of providing nutritious meals and snacks to young children in ECD settings. They work to create environments that promote healthy eating habits, educate parents and caregivers about the importance of nutrition, and collaborate with other stakeholders to ensure access to nutritious food options. By emphasizing the importance of nutrition for cognitive development, early childhood development coordinators contribute to the holistic development of young children, setting a strong foundation for their future learning and success (Shah et al., 2022). It is a common perception that a healthy body has a healthy mind, and healthy eating is a fundamental right of every individual (UNESCO, 2017). Proper nutrition is important for students' achievements and cognitive development. When children have improper proper nutrition they are unable to reach their full potential (Ross & Anderson, 2019). Relationships between proper nutrition and mental performance in young children are very essential regarding scoring and capacity in their academic part and also in later life (Mahmoud, 2020). Nutrition is important for brain development and functions in early childhood, such as proteins, vitamins, B12, iron, and zinc (Johnson & Williams, 2020). A proper diet helps students to concentrate on learning effectively (Ross & Anderson, 2019).

Erickson (2017) mentions five key components, based on research, that help our brain function properly. The first one is that proteins are found in those types of foods such as meat, fish, milk, and cheese. Another nutrient is carbohydrates are normally obtained from grains, fruits, and vegetables. These carbohydrates are broken into glucose (sugar) from which the brain gets its energy. Vitamins and minerals are essential for the functioning of the brain, such as vitamins A, C, E, and B complex vitamins. Manganese and magnesium are essential for the proper functioning of the brain. Calcium plays a role in message transmission and the thinking process. The major goal of this study is to highlight the views of ECD coordinators and pediatricians on the importance of food and nutrition for young children's cognitive development. Moreover, this research study will also be helpful for parents and ECD teachers to develop food plans for their young children (Wilder, 2020). Poor nutrition can leave students and create many diseases such as headaches and stomachaches, and these problems lead students towards mental disturbance. Garcia and Nguyen (2008) suggest that diets are more in trans fats, and saturated fats badly affect cognition. Unwanted items and fast foods are trans fats.

Junk foods affect the brain synapses. The existence of vitamin B1, which governs cognitive performance, especially in old age, is implied by the consumption of glucose by nerve tissues. Vitamin B9 protects the developing brain and the memory of older people. Premenstrual depression is likely to be helped by vitamin B6. Some neurotransmitters are synthesized directly by vitamins B6 and B12, among others.in support of the previous discussion, a more recent focus is on the importance of food and nutrition, which enhances the brain function of young children through good nutrition. By studying the work of other researchers, the present study aims to focus on the importance of food and nutrition.

Its second purpose is to investigate the relationship between nutrition and cognitive development. Food is a mixture of some components which can be categorized into nutrients and non-nutrients. Similarly, nutrients are also classified into macronutrients and micronutrients. Micronutrients such as vitamins and minerals are essential for the proper function of mental development. Carbohydrates, proteins, and fats are also known as macronutrients, which are typically needed in large amounts (Johnson & Williams). Nutritional deficiencies affect the cognitive development of young children. Fatty acids perform a vital role in intellect tissue. Iron is very important for the mental development of young children.

Iron deficiency causes disturbances in attention and memory and affects our school performance. A deficiency of zinc and vitamins affects brain function and memory (Robinson, 2019).

Problem Statement

This research paper looks at the relevance of food and nutrition for the cognitive development of young children at the ECD level. Poor nutrition can leave students and create many diseases, such as headaches and stomachaches, and these directly affect the mental health of young children. So, it was badly needed to uncover the problem.

Objectives of the Study

- To explore the perception of ECD coordinators and pediatricians regarding the importance of food and nutrition for the cognitive development of young children.
- To find out the views of ECD coordinators and pediatricians regarding the food that is harmful to the cognitive development of young children.

Main Question

- What are the perceptions of ECD coordinators and pediatricians regarding the role of food and nutrition on the cognitive development of young children?

Subsidiary Questions

- How do ECD coordinators and pediatricians perceive the importance of food and nutrition for the cognitive development of young children?
- What type of food is perceived as harmful to the cognitive development of young children?

Literature Review

A literature Review has a fundamental role in any type of educational research because a well-ordered literature review can provide enough guidelines and the researcher's view, thus making the study valid and more reliable. Therefore, the literature covers a brief introduction to the opinion of ECD coordinators and pediatricians about the importance of food and nutrition for the cognitive development of young children. According to Kapur (2020), proper nutrition is one of the important features for the effective growth and mental development of young children. When diet and nutrition are combined with physical exercise, the diet can make a major contribution to maintaining a healthy weight, lowering the risk of chronic diseases, and improving general health.

The role of food and nutrition on the cognitive development of young children. Smith (2019) mentioned that nutrition is very important in the first three years of a child's life because it affects the child's health and physical growth. This is a serious period for intellectual development, which will afford and institute the development of cognitive, motor, and socio-emotional skills throughout life. Nutrition plays a very important role in our cognitive functions. Poor nutrition directly influences school performance. Iron has played a central role in brain functions. Children with iron deficiency anemia have been paying little attention to their academic performance because of low iron levels (Blanton et al., 2018). *Zinc* is the other most important nutrient that has a role in cognition, especially in memory.

Type of Food that Sharpens Cognitive Skills

Erikson (2017) mentioned five key components, based on research, that help our brain function properly. The first one is protein, which is found in types of foods like meat, fish, milk, and cheese. They are helpful in making figure tissues, like neurotransmitters, earlier identified as chemical messengers that collect data and send it to other intellectual cells. Absorption of

protein is known as protein energy. Improper nutrition affects the academic performance of children. Another nutrient is carbohydrates found in such as grains, fruits, and vegetables. Carbohydrates are converted into glucose (sugar), through which the brain gets its proper energy. Fluctuating levels of carbohydrates may cause different issues, such as dizziness and mental confusion, which affect our cognition.

Furthermore, Erickson (2017) discussed vitamins and minerals, which are very important for our cognition. A, C, E, and B complex vitamins. Manganese and magnesium minerals are very important for mental function; other minerals like sodium, potassium, and calcium can play effective roles in message transmission and thinking processes. Fat accounts for more than 60% of the brain's mass and serves as a messenger in the partial control of things like mood. Low levels of omega-3 fatty acids can lead to depression, poor memory, low IQ, learning impairments, dyslexia, and attention deficit hyperactivity disorder (ADD). Nuts and fish are good sources of Omega-3 fatty acids. Wolpert and Wheeler cited research done by Gonez-Pinilla, a UCLA professor of neurosurgery and psychological science. According to the article, diet, exercise, and sleep have the potential to adjust brain fitness and psychological function. According to his research, Omega-3 fatty acids can be found in a range of foods, including salmon, kiwi fruit, and walnuts, and they help with memory and learning, which takes place mostly at synapses. Synaptic plasticity is aided by omega-3 fatty acids, which appear to have a favorable effect on the expression of numerous molecules associated with learning and memory found in synapses. Omega-3 fatty acids are critical for brain health. According to the article, a lack of Omega-3 fatty acids can raise the risk of attention deficit disorder and dyslexia.

Macronutrients

For the human body, nutrients are required in a large amount. Carbohydrates, proteins, and fats are integrated into macronutrients. Furthermore, Venn (2020) stated that macronutrients, fats, proteins, and carbohydrates provide essential nutrients and components of life support. Fats are made up of glycerol and fatty acids; Protein is an accumulation of amino acids; and carbohydrates are simple sugars that appear as monosaccharides or chains of monosaccharide (e.g., starches). Their bonds can be hydrolyzed in the human gut to monosaccharides or resistant to hydrolysis (dietary fiber).

Importance of Carbohydrates in Child Development

Smith (2020) mentions that sugars, starches, and fiber are major sources of energy in the diet that contain carbohydrates. Each gram of carbohydrate provides four calories. Similarly, Ross (2019) mentioned that carbohydrates are normally obtained from grains, fruits, and vegetable sources. These carbs are turned down into glucose, which provides energy to the brain. Irregular levels of starches may cause different issues, such as dizziness and mental confusion, which affect our cognition as well as academic performance. Furthermore (the Barilla Center for Food & Nutrition) suggests that biological compounds deliver energy to all tissues in the human body, especially the brain and red blood cells, which normally make most of the glucose as the "fuel" for cell actions.

Sugars, starches, and fibers are the three fundamental types of carbohydrates found in diets. Sugars are a basic source of energy, but they do not provide much to the body in any other way. They do, however, create long-term eating habits, which are very beneficial for adolescents and adults. According to WHO, sugar-rich foods and drinks during preschool and school–age years are insufficient; sugar can restrict energy intake from other critical sources, making it more difficult for a growing body to consume micronutrients, minerals, and vitamins. It can also cause problems with the intestines. Despite the fact that carbohydrates are simple to digest and absorb by the human body, a diet high in starches, which are largely found in grains and potatoes, can cause health problems.

On the speed with which food passes through the intestine (regularizing the alveus), the characteristics of intestinal absorption (slowing the absorption of nutrients, particularly cholesterol, and glucose), and the risk of becoming overweight (contributing to a lower caloric density of the diet and increased satiety). Fruits and vegetables are high in fiber, but they also have many micronutrients in them.

Carbohydrates are the major sources in the transmission of energy to the human body for normal body development. Carbohydrates help in the physical development and working of cells in the human frame. Carbohydrates are a necessary component of several substances that promote infection resistance, as well as nerve tissue, heart valves, cartilage, bone, and skin. Dietary fiber absorbs water and acts as a wipe.

Importance of Proteins in Child Development

Swaminathan (2020) studied that proteins are the basic building blocks of our bodies, as well as the main solid matter in muscles, blood, bones, teeth, skin, nails, and hair. Proteins also give our bodies energy; each gram of protein contains four calories. Proteins are made up of amino acids, which are the building components. When amino acids are combined in diverse ways, proteins are formed. They combine to form thousands of distinct proteins in the body. Ross (2019), cited by Erikson (2017), maintains that proteins can be found in meat, fish, milk, and cheese, among other meals. They aid in the production of bodily tissues, such as neurotransmitters, which were previously recognized as chemical messengers that collect data and deliver it to other brain cells. A protein deficiency, commonly known as protein-energy malnutrition, affects children's academic performance.

According to Kapur (2020), proteins in the diet provide about ten percent of total energy. Once protein intake exceeds the body's needs, it is changed to carbohydrates and lipids, which are then deposited in the body. U.S. Department of Agriculture (2022) further mentioned that proteins are essential for the construction of new tissues. It is an important part of each cell of the body. During the formation of new cells, proteins provide amino acids. Proteins are required in different periods of life different with the amount of growth at the particular stage.

Protein is required to continue and repair old tissues permanently all over life. Proteins in bodily fluids such as blood aid in the regulation of physiological functions.

The key oxygen carrier in red blood cells, hemoglobin, is a protein and iron complex that enables the charming running of the inhalation cycle. Plasma proteins have an impact. Carbon dioxide generated in the blood combines with the proteins in the blood. When we exhale, we expel it from our bodies. Proteins are excellent nutrition transporters across cell membranes. Triglycerides, lipids, phospholipids, and fat-soluble vitamins are transported through the cell wall by proteins known as lipoproteins.

Importance of Fats in Child Development

Fats are a very crucial ingredient of human life. Fats are an essential part of our body. They are found in the form of cells and tissues. Each gram of fats provides nine calories. Oils and fats are rigorous sources of energy. Kapur also mentions that fats originate in foods such as oils, butter, ghee, and so forth. Fats are the determined foundations of energy; fat-soluble vitamins are essential fatty acids. If fats are great in nutrition, it stored in the form of fat in the body. Because fat cause obesity.

Similarly, Biswas (2021) mentioned that fats perform a chief role in hormone creation, cell progress, and energy packing; Fatty acids are located as the main building blocks of fats.

There are two types of fatty acids, according to Cannon and Leitzmann (2015).

Saturated fatty acids and unsaturated fatty acids are two types of fatty acids.

1. In a saturated fatty acid, the carbon atoms are connected by a single bond. Saturated fats are harmful to our health.

2. The molecule of an unsaturated fatty acid contains one are more double bonds. Further, only one double bond exists in monounsaturated fatty acids (MUFA). There are two or more double bonds in polyunsaturated fatty acids (PUFA).
Unsaturated fats are healthier than saturated fats because they are easily digestible and have better health profits.
Essential fatty acids (EFA) 3 and fats that support the transport and preoccupation of fat-soluble vitamins, as well as their precursors, are both found in food fats.
Cholesterol is a lipid that is produced in the liver. Cholesterol is used to make essential hormones and bile acids. Fat is found in the fatty center of cell walls, which aids in the transport of nutrients across cell membranes.
Adipose tissue is fat that is accumulated in numerous regions of the body. A web-like cushion of this tissue supports and protects the body's critical organs. Fats cushion certain essential organs. The fat covering protects nerve fibers and aids in the transfer of nerve signals. Fats enhance the flavor, palatability, and satiety value of foods. Fat digestion takes longer than carbohydrate digestion, resulting in a sensation of pleasure. The fat that surrounds our joints works as a lubricant, allowing us to move the effortlessly. Micronutrients like minerals and vitamins.

Research Methodology

Research Design

A qualitative research paradigm was used in the study as this paradigm enables the researcher to explore the phenomenon from different angles through in–depth and descriptive study of the opinion of ECD coordinators and pediatricians, so the qualitative approach helped the researcher to explore the opinion of ECD experts regarding the importance of food and nutrition for cognitive development of young children. In addition, qualitative methods such as interviews or focus groups can be conducted to gather in-depth insights and perspectives from students, teachers, and other stakeholders. These qualitative data can provide rich descriptions and narratives that help contextualize the quantitative findings. This study is conducted in Gilgit-Baltistan.

Data Collection Tool

Keeping in view the nature of the study, the researcher has used a data collection tool such as an interview protocol.

Interview

The researcher used an interview protocol to collect the data from the field. The interview protocol has been developed by the researcher with the help of literature. The focus of this particular interview protocol is the research questions and objectives of the study, which the researcher has formulated d. The research was qualitative, so the interview protocol was used for the data collection as a research tool or instrument. The questions are the same for all student participants. For data collection, the researcher used an open-ended interview protocol as a primary tool in the present study. The interview protocol for doctors consists of eight questions, and the interview protocol for teachers consists of eleven questions. The researcher conducted a total of three interviews with each ECD teacher and pediatrician. Among them, one was formal and in-depth, and it continued for one hour, and the remaining was the probing of the first interview session.

Population

A population is the whole group of people, objects, events, or measurements from which a sample is being drawn. People are thus a number of groups having some common features

among them (Kenton, 2019). Population is the group of people from which a statistical sample is selected for research in statistics. As a result, any collection of persons gathered together by a common attribute is referred to as a population. My research population will be three ECD coordinators from three different ECD centers and three pediatricians from three different hospitals in Gilgit, Baltistan.

Sampling Procedures and Techniques

To choose the sample from the population, a purposeful sampling strategy was applied. Judgmental, selective, and non-probability sampling are all terms used to describe purposeful sampling (Sharma, 2017). In this technique, the researcher intentionally chooses the informant due to their relevance to research questions and objectives. This technique totally relies on an arranged selection of researchers when it comes to choosing people, organizations, or events. The researcher intended to know the opinions of early childhood development coordinators and pediatricians. So intentionally selected the coordinators from three different centers and pediatricians from three different hospitals. Therefore, the sample was selected with reference to the objectives and questions of the research. This research has been conducted in Gilgit - Baltistan.

The researcher selected three ECD coordinators and three pediatricians from the selected ECD centers and hospitals. Among them, all three ECD coordinators were female, and one female pediatrician, as well as two pediatricians, were male. The researcher developed criteria for the selection of a sample for both ECD coordinators and pediatricians to ensure participants' relevance to the research questions and objectives.

Data Analysis, Findings and Discussion

This chapter describes the data analysis and findings. The purpose of this study was to explore the opinion of ECD coordinators and pediatricians regarding the importance of food and nutrition on the cognitive development of young children in early childhood development. For data analysis, the researcher used thematic analysis. During the literature review, the researcher found the themes and analyzed the data according to the themes.

Interview protocols were used to gather coordinators,' and pediatricians' opinions regarding the importance of food and nutrition on the cognitive development of young children in early childhood development.

Objective 1: To explore the perception of ECD coordinators and pediatricians regarding the importance of food and nutrition for the cognitive development of young children.

Opinion of Early Childhood Development Coordinators regarding the importance of food and nutrition for the cognitive development of young children at the ECD level.

In response to a question related to the importance of food and nutrition for the cognitive development of young children at the ECD level, the respondents commonly shared their views related to the importance of food and nutrition for the cognitive development of young children in early childhood development. All three ECD coordinators said that we cannot ignore the importance of proper food and nutrition at early ages, especially for the cognitive development of young children. For example, one of the research participants said

> *Adequate food full of nutrition is vital for normal brain development since cognition is related to tasks performed by the brain like thinking, reasoning, and focus perception. Therefore, birth, balanced food is necessary not only during conception but even before that if the mother has good folic acid + zinc, etc.*

Furthermore, ECD coordinators also stated that during pregnancy and infancy, they are crucial for brain function. That is the base for the development of cognitive, motor, socio, and emotional skills through childhood and adulthood. If a child has poor nutrition, it is a danger

for poor intellectual development, which leads to weak learning, low immunity, increased infections, and, in many cases, death. Kids who suffer from poor nutrition at an early age can develop many deficiencies that cause cognitive, physical, social, and emotional progressive delays. They are more susceptible to disease, and low immunity to poor nutrition affects children's cognitive development in many ways. Inadequate brain growth due to lack of proper food can result in cognition, slow learning, delay in language, low IQ level, lack of concentration, and hence poor school performance.

Research participant A further added

> *Our brain functions best when we eat a balanced and nutritious diet. The high quality found contains fatty acids, oxides, vitamins, and minerals, nourishing the brain and protecting the brain from stress and different mental diseases. Good nutrition enhances memory and focus, and it has a strong immune system, which protects from different diseases, slow learning, and poor school performance. Poor nutrition affects memory, which plays a main role in the learning process (Interviewed on Wednesday 16, 2022).*

Similarly, research participant B said

> *In this stage, the child develops physically and mentally, so good nutrition is essential during early childhood. Healthy foods, fruits, vegetables, milk, and eggs enhance their mental memory, thinking, and focusing. Proper nutrition helps in improving their academic performance and reasoning skills. As well as it protects the child from different diseases. Proper nutrition mostly affects mental skills such as thinking, and academic achievements because proper nutrition and students' academic performance are interlinked; if the diet is good, students' performance will increase. Students who are physically active and involved in social activities such as sports socially develop. Poor nutrition affects the cognitive development of young children because it is not a good and healthy food for them at the age of three to six years, because at this stage, the brain develops rapidly.*

All three research participants (ECD coordinators) were in favor of the use of proper food and nutrition for the cognitive development of young children. They all also said that in developmental age children need proper food and nutrition for holistic development of young children. They all also added that ignorance of proper food and nutrition at an early age may lead to mental laziness.

Similarly, Morris (2019) states that appropriate nutrition plays a significant role in the cognitive development of children. Proper nutrition develops different abilities in children to solve problems, and decision-making heavily depends upon a proper combination of a healthy diet. Likewise, Colby (2014), taking a confident diet, the mind obtains amino acids and chlorine, which help preserve the necessary amount of neurons in the brain that release chemicals, including acetylcholine, epinephrine, and serotonin, for developing active cognitive skills. As well as Chen et al. (2017) mentioned that malnutrition influences future mental performance, which may result in a nutritional influence on cognitive function, is maternal iodine deficiency, which may result in frank cretinism or reduced mental function and school performance in the offspring.

Objective 2: To find out the views of ECD coordinators and pediatricians regarding the food that is harmful to the cognitive development of young children. Opinions about names of foods suggested by pediatricians that foster cognitive development in young children.

In response to a question related to the names of foods that foster cognitive development in young children. The respondents' pediatricians commonly shared their views, which related to the names of foods that foster cognitive development in young children. For example, one of

the research participants, Pediatrician "A," said "a balanced diet like dry fruits which enhance their cognitive skills" (Interviewed on Thursday, March 17, 2022).

Similarly, participant B also mentioned

> *Fruits and vegetables are important for mental health as well as dry fruits like walnuts; almonds are equally good. They contain average fatty acids. Moreover, seeds are also important for mental health protein rich food. Meat, fish, eggs, nuts, and beans are very important for children's cognitive development. As well as theses contain minerals and vitamins like iron and zinc acids are very important for muscles and overall growth. Soft dishes like bananas and soup are important. (Interviewed on Friday, March 11, 2022).*

Likewise participant C pediatrician further explains

> *Egg, green vegetables, milk, glucose and fruits, low cholesterol, high protein, and vitamin-rich food diets like eggs, meat, milk, vitamins B12, glucose, folic acid, vitamin C, and vitamin D are essential nutrients that are responsible for cognitive development. Moreover, drink milk every night and eat meat and vegetables. (Interviewed on Thursday, March 3, 2022).*

All three research participants (pediatricians) suggested that dry fruits like walnuts, almonds, greens, (vegetables) fresh fruits like apples and mangoes, minerals and vitamins like meat, fish, and milk full of calcium, low cholesterol foods, and not alcoholic foods are very important for normal brain development of young children; and that helpful in foster brain development of the young children at early stages.

Liu (2018) suggested that dry fruits are proper nutrients and provide many health benefits to all, such as almonds, which are full of proteins, zinc, and other essential nutrients. Krans (2017) mentioned that a stable diet consists of all the essential nutrients in an accurate amount that provides the needed calories required by a body for its well-functioning. As cited in (Mudambi, 2017), proper nutrition raises drinking the appropriate quality of clean water and taking sustenance from six food groups: vegetables, grains, fruits, milk, meat, products and beans, and oils. These foods provide six types of nutrients: carbohydrates, proteins, minerals, vitamins, fats, and water.

By understanding the perspectives of ECD coordinators, we can gain valuable insights into their awareness, knowledge, and beliefs about the significance of nutrition in cognitive development. This analysis can help identify any gaps or challenges in implementing effective nutrition programs and interventions at the ECD level. Furthermore, exploring the opinions of ECD coordinators can provide valuable information on their perceptions of the impact of nutrition on children's learning abilities, attention span, memory, and overall cognitive functioning. This insight can contribute to the development of evidence-based strategies and policies that prioritize nutrition as an integral part of early childhood development programs.

Overall, this research topic holds great importance as it sheds light on the perspectives of ECD coordinators and their role in promoting optimal nutrition for cognitive development in young children. The findings can support the development of comprehensive and targeted interventions that enhance the cognitive well-being of children at the ECD level.

Conclusion

Based on an analysis of the research topic regarding the opinion of early childhood development coordinators on the importance of nutrition for cognitive development in young children at the ECD level, the searcher believes it is a crucial area of study. Nutrition plays a vital role in the cognitive development of young children, and ECD coordinators are key stakeholders in promoting optimal nutrition practices.

Research objectives were revisited in light of the findings in order to reach conclusions. Thus, it has been concluded on the basis of a first finding that developmental-age children need proper

food and nutrition for the cognitive development of young children. All research participants also added that ignorance of proper food and nutrition at an early age may lead to mental laziness. Furthermore, good nutrition is essential during early childhood because it gives children to live life to their full potential, protect against diseases and malnourishment, maintain the immune system, prevent obesity, and reduce the risk of chronic disease; good nutrition also supports children to perform at physically, socially, and academically as well.

It is concluded that a balanced diet like greens, fruits, dry fruits, and grains is equally important for the physical and mental development of young children at early ages because, at early ages, the brain develops rapidly. Malnutrition affects cognitive and physical development. Similarly, some foods are considered to be best for brain development, like eggs, which are rich in proteins and help kids concentrate, yogurts: full-fat yogurts help brain cells send and receive messages, grains: full of vitamins, iron in spinach, and leaf greens packed in antioxidants help new brain cell growth. Fish rich in omega three fatty acids and vitamin D protect the brain from dealing mental skills and memory loss. Fruits are rich in antioxidants, vitamins, minerals, growing mind, and overall development. Carbohydrates-rich foods like rice, bread, potatoes, and proteins from eggs, meat, pulses, and grain are also important vegetables for brain development. As well as milk and cheese, with less sugar. It is also concluded that breast milk is an important factor in developing the immunity of children. Besides, it is a complete diet for a child. It contains all of the essential nutrients plus vitamin A and antibodies. Breast milk is the first antibiotic for the child. Breastfeeding children develop normal body weight, they are helping to prevent different diseases such as asthma, allergies, and respiratory infections. If a child has poor nutrition, it is a risk of poor brain development. Kids who suffer from poor nutrition at an early age can develop different shortages like iron and iodine, which cause cognitive, physical, social, and emotional developmental delays. They are more susceptible to disease, and low immunity to poor nutrition affects children's cognitive development in many ways. Inadequate brain growth due to lack of proper food can result in cognition, slow learning, delay in language, low IQ level, lack of concentration, and hence poor school performance. Poor nutrition affects memory, which plays a main role in the learning process. Poor nutrition has a highly bad impact on a child's cognitive development; poor nutrition means undernutrition, not getting enough nutrients, or getting more nutrients than needed; both are not good for a child's mental development.

Recommendations

It has been discovered through the course of the research that proper nutrition plays an imperative role in the cognitive development of young children. The researcher would like to provide some critical suggestions to school administrators, ECD coordinators, parents, and future researchers. On the basis of the findings, the following recommendations have been made. It is recommended to school administrators that they ensure protein, carbohydrates, and calcium-rich food in their canteens**.** It is recommended to the administration that they allow only homemade food in lunch, and all other foods should be banned. There are also recommended to ECD coordinators that they ensure food related to cognitive development in their lunch plan, and they must encourage homemade lunches in their schools. It's recommended to parents that they must ensure protein, calcium, and carbohydrates in breakfast and lunch for their kids; similarly, parents and siblings must adopt good eating habits within themselves, so an accurate message should be delivered to the kids regarding good eating habits.

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