


**PLAYING AND LEARNING: PROMOTING HYGIENE AND HEALTHY EATING IN
EARLY CHILDHOOD**

 <https://doi.org/10.56238/sevened2024.031-100>

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ABSTRACT

Childhood is the phase of learning about life. Thus, the first six years of life are crucial for the integral development of children, covering emotional, physical, and, above all, cognitive aspects. In this context, daycare centers and preschools play an essential role in collaboration with parents and the community by providing education and contributing to the global development of this public. The objective of this article was to report the experiences of nursing students regarding the development and application of personal hygiene practices and the promotion of healthy eating habits among young children. This is a descriptive work of a qualitative nature, of the experience report type, resulting from an extension project developed in five Early Childhood Education Centers located in the municipality of Caxias-MA, where personal hygiene and healthy eating activities were carried out. Thus, a direct audience of 789 children and an indirect audience of 968 people, involving parents and teachers, totaling 1,757 people, were reached. The development of the activities allowed the children to better understand the importance of hygiene and healthy eating practices for a healthier childhood. During the dynamics, the participation of the little ones in the construction of new learning was notorious.

Keywords: Healthy Eating. Early Childhood Education. Personal hygiene. Preschool.

INTRODUCTION

Childhood is marked by the phase of learning about life: how to eat, dress, play, study, and imagine. It is at this stage that the child takes a liking to things that will last into adulthood. Thus, the first six years of life are crucial for the integral development of children, covering emotional, physical, and, above all, cognitive aspects. It is during this phase that the formation of neurons and the establishment of new synaptic connections occur, which has a direct influence on growth and development in early childhood (Vinancio, 2020).

In this context, daycare centers and preschools play an essential role in collaboration with parents and the community by providing education and contributing to the overall development of children. In addition, the Early Childhood Education Centers (CEI) act as a support network, complementing the family's action and helping in the formation of citizens and healthy habits, including hygiene and healthy eating. These spaces are privileged to disseminate knowledge, as they enable collective, transdisciplinary, and intersectoral work, also focusing on health promotion (Vinancio, 2020; Brazil, 2018).

In the first analysis, children are influenced by the school environment and by family and social education, which are fundamental for their formation. Several factors, including socioeconomic aspects, shape their health, highlighting the importance of personal hygiene, such as bathing, brushing their teeth, and cleaning the skin. Thus, to promote the learning of comprehensive health care, it is essential to employ active teaching methods, which make knowledge more attractive and provide solid foundations for the understanding of fundamental concepts, thus contributing to their formation (Ramos *et al.*, 2020; Queiroz *et al.*, 2020).

Furthermore, daycare centers are fundamental spaces for the promotion of child health since in these places, several factors contribute to a greater ease of transmission of diseases, such as the agglomeration of people susceptible to common infections, the lack of enough adults to provide basic individual care, and even unhealthy environments. In addition, the immaturity of the immune system in this age group makes it difficult for the body to defend itself against pathogenic agents, increasing children's vulnerability to illness (Galvão, 2018; Mouta *et al.*, 2020).

Secondly, the consumption of *fresh* foods is essential at all stages of life. However, it is undeniable that an inadequate diet in the first years can result in negative, persistent, and irremediable consequences. Nevertheless, complementary feeding practices in Brazil are often marked by the early introduction and high intake of inadequate foods, especially nutritionally deficient items, with a high added sugar content, leaving children susceptible to

developing cardiovascular diseases, diabetes, and obesity (UNICEF, 2021; Fisberg *et al.*, 2021; Baldaso *et al.*, 2020).

Thus, the Human Right to Adequate Food is internationally recognized in the Universal Declaration of Human Rights and the International Covenant on Economic, Social, and Cultural Rights. In Brazil, it is guaranteed by the Federal Constitution after Constitutional Amendment No. 64 of 2010, aligning with the UN Sustainable Development Goals (SDGs) to promote health and access to quality food. However, to ensure healthy eating, it is crucial to be well-informed and make conscious choices, avoiding sugary drinks and ultra-processed foods, which often lack essential nutrients, especially during the first years of life (UNICEF, 2021).

For all these reasons, it is observed that carrying out educational activities on personal hygiene and healthy eating from an early age is essential, as this helps prevent diseases that arise due to the lack of basic hygienic habits. In this way, addressing this theme allows the creation of an integrated and contextualized work, enabling children to establish connections with other disciplines and with their own experiences. Therefore, this study seeks to report the experience of nursing students regarding the development and application of personal hygiene practices and encouragement of healthy eating among early childhood children.

METHODOLOGY

This is a descriptive work, of a qualitative nature, of the experience report type, resulting from the extension project "It is by playing that one learns: promotion of hygiene and healthy eating from childhood", carried out by nursing students from the State University of Maranhão (UEMA), from November 2023 to July 2024.

CHARACTERIZATION OF THE AREA OF OPERATION

The extension project was developed in five Early Childhood Education Centers (CEI) located in the municipality of Caxias, Maranhão. Caxias is the fifth most populous city in the state, with a population of 164,880 inhabitants and an area of 5,150,667 square kilometers, which makes it the third largest city in the state of Maranhão in territorial extension (IBGE, 2019).

The choice of the CEI was made by the units with the highest number of children enrolled in preschool age, namely: CEI Maria das Neves Coutinho; CEI Marcelo Dino; CEI Prof. Francileide Leal Moreira; CEI Isabel Dolores Leão Brito and CEI Prof. Maria Benedita Pereira da Silva. The target audience was children aged 2 to 6 years.

METHODOLOGICAL PROCEDURES

The actions carried out addressed body and oral hygiene, as well as biosecurity and healthy eating measures, and, at the end of each activity, it was verified through questions to the children if they understood what they saw or heard about hygiene and healthy eating and how they should perform them.

Each CEI received four visits in the morning and afternoon shifts, totaling 8 visits per center and 40 in total. Meetings were held with parents or guardians; personal hygiene activities; healthy eating activities and educational gymkhana to verify the knowledge acquired during the project, respectively.

Personal hygiene

The first stage of the activity consisted of a playful theater entitled "The Kingdom of Dirt", which served as an introduction to the theme in a creative way, to capture the attention of children and highlight the importance of hygiene practices in a comprehensive way. In this play, there were two main characters: the "dirt fairy" and the "hygiene fairy", accompanied by the "tooth prince", who coordinated the entire staging involving the children and the characters.

Also in this stage, toothbrushing was addressed, where the "prince of the tooth", using a didactic kit, explained in a dynamic way all the stages of oral hygiene. During this demonstration, a comparison was made between the cleaning of teeth performed by the "dirt fairy" and the "hygiene fairy", providing opportunities for children to express their opinions about oral hygiene and highlight the practices that contribute to satisfactory oral health.

In addition, the importance of bathing was highlighted through the "dirt fairy", which had figures of microorganisms representing its impacts on health, such as dermatitis, diarrhea, and respiratory diseases. After the explanation, a simulation was made with the "Cleaning Cabin", a didactic accessory made of hula hoop and blue fabric, which represented the bath that removed microorganisms. During the act, the children were encouraged to participate, sharing opinions and reaffirming the stages of the bath.

Therefore, the second stage of the activity consisted of practical hand hygiene with water and liquid soap. At that moment, each class went to the sinks present in the courtyard of the daycare. The "hygiene fairy" applied liquid soap to children's hands, while the "prince of the tooth" didactically explained the importance of hand hygiene and the step-by-step

aseptic procedure. In addition, pictures of clean and dirty hands were used to demonstrate to the children how their hands looked before and after cleaning.

Healthy eating

To address the theme of healthy eating, the "Food Apron" was used, which contained two parts: on the one hand, healthy foods and, on the other, unhealthy foods. In addition, a painting activity was carried out with the command: "Paint the foods you consider healthy", including options such as apples, bananas, fish, soda, and popsicles. The objective was to assess the children's understanding of the concepts presented. The action began with conversation circles in classrooms, creating a greater bond with the little ones and enabling a more in-depth approach before the practical painting activity.

Educational gymkhana

To close the activities in each Early Childhood Education Center, it was proposed to the teachers to prepare a presentation referring to the themes worked on during the project. Thus, the children were able to participate actively in the elaboration of the presentations, collecting knowledge in their intellectual baggage.

RESULTS

Eight meetings were held in the five Early Childhood Education Centers selected for this project, in the morning and afternoon shifts, totaling 40 visits. With these actions, a direct audience of 789 children was reached, distributed as shown in Table 1. At CEI Prof. Francileide Leal Moreira, the target audience was much lower than in the other centers due to a renovation in the unit shortly after the beginning of activities. In addition, an indirect audience of 968 people was reached, including teachers, parents, and guardians of the five educational centers mentioned. Thus, the total audience reached by this project was 1,757 people, as illustrated in Table 1.

Table 1: Quantitative distribution of the public reached in each Early Childhood Education Center.

CIS	CHILDREN	TEACHERS	RESPONSIBLE	TOTAL
Marcelo Dino	165	15	210	390
Isabel Dolores	193	15	197	405
Maria Benedita	172	16	182	370
M ^a . das Neves	222	20	205	447
Francileide M.	37	05	103	145
Total Attendance >	789	71	897	1.757

Source: Prepared by the authors.

The dynamics of the visits to the CEI took place as follows: first, a meeting was held with the children's guardians to present the project and introduce the theme to this public; after all, guiding only the children would not be effective for achieving healthy habits in their daily lives. Thus, the importance of personal hygiene, strategies to combat the spread of *Pediculus humanus*, popularly known as lice, in addition to the Influenza virus, was addressed in these meetings. In addition, parents also received folders containing information on the topics addressed.

Therefore, recreational activities with the children in the educational centers began. Thus, upon arriving at the units, the executing team creatively introduced the theme with a parody of the song "Meu pintinho amarelinho" and with a theatrical play entitled "O Reino das Sujas," aiming to capture the attention of children and highlight the importance of hygiene practices in a comprehensive way. In the play, there were two main characters: the "dirt fairy" and the "hygiene fairy", accompanied by the "tooth prince" (Image 1.A), who coordinated the entire staging involving the children and the characters. Thus, during the theater, the importance of bathing and oral hygiene was addressed (Images 1. B and 1.C).

Image 1: Realization of playful activities related to personal hygiene for children at the Early Childhood Education Centers of Caxias-MA.



Source: Prepared by the authors.

After the playful activities in the courtyard of the CEI, the children were directed to the classrooms for a better coordination of the next activity: the performance of hand hygiene in practice. In this way, the project execution team invited one class at a time to the sinks of the teaching units and reinforced the importance of hand cleaning to the public present. From this perspective, the step-by-step instructions for hand hygiene were taught as liquid soap was applied to the children's hands (Images 2. A and 2.B). At the end of the process, the infants were given paper towels for drying, while they observed, through illustrations, the removal of microorganisms from the surface of their hands (Image 2.C). This dynamic was repeated with all classes at the teaching centers, and they were able to experience fun moments accompanied by a lot of learning.

Image 2: Practical hand hygiene activities with children from the Early Childhood Education Centers of Caxias-MA.



Source: Prepared by the authors.

As for the activities related to healthy eating, they took place as follows: conversation circles were held with the children with the help of the "food apron," addressing the importance of macro and micronutrients and encouraging the consumption of *fresh* foods (Image 3.A). On the occasion, the public was alerted to the negative impacts of foods rich in salt and sugar on health.

Image 3: Realization of playful activities related to healthy eating for children at the Early Childhood Education Centers of Caxias-MA.



Source: Prepared by the authors.

Next, the preschoolers received an activity asking them to paint the foods they considered healthy, and the available options were: fish, bananas, soda, apples, and popsicles (Images 3. B and 3.C). However, not all children correctly followed the command of the activity, and the occurrence of errors became inversely proportional to the age of the children; that is, the younger the age, the more errors were made.

It was observed that children aged 5 and 6 years had a tendency of 100% of correct answers, completely mastering the activity, except in cases of children with some disorder, such as the Autism Spectrum, because they had difficulties in identifying some foods, or

refused to answer the task. In addition, a greater tendency to errors was observed among children aged 3 and 4 years, suggesting improvements in learning.

At the end of each activity, questions were asked to the preschoolers to verify the contents applied (Image 4.A), and it was possible to observe that they absorbed a large part of the teachings, as well as the influence of foods rich in sugar on the appearance of cavities, the risks of consuming unwashed foods, the importance of bathing, hand washing, and the intake of natural foods.

Image 4: Records of the closure of extension activities in the Early Childhood Education Centers of Caxias-MA.



Source: Prepared by the authors.

To close the project, an educational gymkhana was held where each class was able to prepare, with the help of their teachers, a presentation referring to the subjects addressed throughout this trajectory. Children from Kindergarten IV, for example, presented the "food traffic light", and students from Kindergarten V presented a song addressing the importance of oral hygiene (Image 4.B). In addition to the presentations, there was a moment of fruit tasting (Image 4.C). Finally, each daycare center received a certificate with clippings of the best moments of this trajectory.

DISCUSSION

Playful activities promote a significant improvement in the teaching-learning process, creating interactive moments that stimulate the development of self-care habits and skills. These practices have as their main objective to contribute to the improvement of children's quality of life and health. By being incorporated into teaching, they make the process more dynamic, engaging, and accessible, making it easier for the target audience to understand the content.

During the performance of these activities, the children showed a great interest in the didactic resources used in the meetings. This involvement was evidenced by the receptivity

to the information shared during the lectures as well as by the willingness to actively participate, offer opinions, and answer the proposed questions (Silva, 2023).

In addition, the approach to body hygiene using the theater "The Kingdom of Dirt" allowed a greater affinity between nursing students and preschoolers, since this valuable tool stands out in the context of playfulness because it offers several benefits that contribute to the development of skills. Also, dramatization stimulates spontaneity and enables students to connect theoretical content in a more practical and meaningful way (Leal *et al.*, 2019).

In addition, hand hygiene in practice allowed a greater understanding of the importance of this essential habit for a healthier life. During the dynamics, the preschoolers were asked about the importance of hand washing and then explained how to sanitize them correctly (Herculano, 2024). In the following meetings, it was observed that most of the children first went to the sinks in the courtyard of the daycare centers to wash their hands before going to the snack line, attesting to the effectiveness of the use of play in sharing knowledge.

Nevertheless, the use of playful activities has also generated significant results in the promotion of healthy eating in the school environment, positively strengthening children's relationship with nutritionally beneficial foods (Almeida, 2024). Thus, in the conversation circles about healthy eating, the Nursing students, dressed as cooks and wearing "food aprons", explained in an interactive way the importance of nutritionally efficient foods. The objective of this dynamic was to provide infants with a reflection on their behaviors related to eating habits, in addition to a review of the concept of healthy and unhealthy (Gaspar, 2023).

With regard to the painting activity, which had the command "paint the foods you consider healthy", it could be observed that the younger the child, the greater the mistakes made when painting the correct foods. However, most of the 5 and 6-year-old infants obtained almost 100% of the correct answers, meeting the expected result for these ages.

Finally, ending this whole project by placing children as protagonists in the construction of learning, by enabling them, accompanied by teachers, to present a song, poetry, or a play, enhanced the absorption of knowledge with the use of playful tools. In addition, offering fruits for tasting on that same day allowed the little ones to enjoy these fun moments, armed with a lot of knowledge and relaxation.

CONCLUSION

The development of playful activities allowed children to better understand the importance of hygiene and healthy eating practices for a healthier childhood. During the dynamics, the participation of the little ones in the construction of new learning was notorious. In addition, during the practical hand hygiene activity, most children demonstrated that they knew how to perform friction movements on the palms of the hands, on the back, on the interdigital spaces, on the thumbs and tips of the fingers, and the wrist.

In addition, the dynamics of healthy eating revealed that children have significant knowledge about foods that are beneficial or harmful to health. However, younger children showed difficulties in recognizing all these foods. The end of the project, marked by the presentations made by the children themselves, reinforced their experiences with the themes addressed, positioning them as protagonists in the construction of new learning. Thus, both the faculty of the Early Childhood Education Centers and the parents expressed satisfaction with the implementation of the project in the daycare centers, highlighting the benefits that it can bring to the lives of children in the short, medium, and long term.

REFERENCES

1. Almeida, D. P. de, Reis, D. do N., Araújo, D. A. de, Santos, C. D., Oliveira, G. O. de A., & Nascimento, L. V. (2024). Play as a tool for healthy eating in the school environment. *Ibero-American Journal of Humanities, Sciences and Education*, 10*(4), 997–1007. <https://doi.org/10.51891/rease.v10i4.13413>
2. Fisberg, M., Duarte Batista, L., Nogueira-de-Almeida, C. A., Sarti, F. M., de Albuquerque, M. P., & Fisberg, R. M. (2021). Integrative strategies for preventing nutritional problems in the development of children in Brazil. *Frontiers in Nutrition*, 8*, Article 662817. <https://doi.org/10.3389/fnut.2021.662817>
3. Fonseca, J. J. S. (2002). *Methodology of scientific research**. UEC.
4. Galvão, D. M. P. G. (2018). The nurse in the daycare/kindergarten: The perspective of the teachers of a Higher School of Nursing. *Revista Enfermería Global*, 51*, 381–393.
5. Gaspar, D. C., Sica, M. B. C., & Dias, L. C. G. D. (2023). Pedagogical workshops with preschoolers from the public network of Botucatu to promote healthy eating. *Revista Campo da História*, 8*(2), 749–758.
6. Herculano, M. S., et al. (2024). Activity to promote healthy eating: Experience report. *Cadernos ESP*, 18*(1), Article e1920.
7. IBGE – Brazilian Institute of Geography and Statistics. (2019). *Population estimate – Caxias, Maranhão, 2019**. <https://www.ibge.gov.br/cidades-e-estados/ma/caxias.html>
8. Leal, E. A. (2019). *Revolutionizing the classroom: How to involve the student by applying the techniques of active learning methodologies**. Atlas.
9. Mouta, A. A. N., et al. (2020). Health at school: Use of play in basic education to raise awareness about personal hygiene and the practice of hand washing. *Revista Eletrônica Acervo Saúde*, 50*, 1–8.
10. Queiroz, T. D. R., et al. (2020). Impressions of high school students about the reverberation of anatomical and pathophysiological teaching of health problems transposed to the rural area of Mossoró/RN: An experience report. *Extendere*, 7*(1), 35–46. <http://periodicos.apps.uern.br/index.php/EXT/article/view/4187>
11. Ramos, L. S., et al. (2020). Hygiene instructions at school and in society as a health action and disease prevention: A bibliographic review. *Revista Eletrônica Acervo Saúde*, 12*(10), Article e4558. <https://doi.org/10.25248/reas.e4558.2020>
12. Silva, T. S. da, Silva, D. M. da, Oliveira, I. de M., Costa, E. V. S., Sousa, L. S., Martins, A. C. R., & Barbosa Filho, J. S. (2023). The use of playful strategies to promote health to schoolchildren in the interior of Ceará. *Revista Ciências da Saúde*, 27*(126). <https://doi.org/10.5281/zenodo.8428469>
13. UNICEF, et al. (2021). *Feeding in early childhood: Knowledge, attitudes and practices**. [Publisher not identified].



14. Venancio, S. I. (2020). Why invest in early childhood? *Latin American Journal of Nursing, 28*, 1–2. <https://doi.org/10.1590/1518-8345.0000.3288>