Body, Mind And Movement Circuit In A Municipal Early Childhood Education Center

Circuito Corpo, Mente e Movimento Em Um Centro Municipal de Educação Infantil

Circuito Cuerpo, Mente Y Movimiento En Un Centro Municipal De Educación Infantil

RESUMO:
Objetivo: Analisar as contribuições do circuito corpo, mente e movimento para as crianças de 2 a 4 anos em um Centro Municipal de Educação Infantil (CMEI) de Várzea Grande. Método: Trata-se de uma pesquisa de ação, descritiva de abordagem qualitativa desenvolvida em um CMEI em Várzea Grande no segundo semestre de 2024. A metodologia utilizada foi a da problematização, a partir dela foram utilizadas outras metodologias ativas para o desenvolvimento do circuito corpo, mente e movimento. A análise foi de conteúdo e a pesquisa foi aprovada pelo Comitê de Ética e Pesquisa pelo parecer nº 6.823.508. Resultado: O circuito promoveu o desenvolvimento infantil, destacou a eficácia das atividades na promoção da socialização, autoconfiança e habilidades motoras. Essas atividades proporcionaram um ambiente onde as crianças puderam explorar e expressar suas emoções de forma natural, contribuindo para a formação da competência socioemocional. Conclusão: A pesquisa apontou a necessidade de políticas educacionais que integrem o movimento e a expressão emocional como partes fundamentais do currículo escolar infantil e a importância do trabalho intersetorial entre saúde e educação.
DESCRITORES: Saúde; Escola; Medicina.

ABSTRACT:
Objective: To analyze the contributions of the body, mind, and movement circuit for children aged 2 to 4 years in a Municipal Early Childhood Education Center (CMEI) in Várzea Grande. Method: This is an action research, descriptive with a qualitative approach developed at a CMEI in Várzea Grande in the second half of 2024. The methodology used was problematization, from which other active methodologies were used for the development of the body, mind, and movement circuit. The analysis was content-based and the research was approved by the Ethics and Research Committee under opinion No. 6,823,508. Result: The circuit promoted child development, highlighting the effectiveness of the activities in promoting socialization, self-confidence, and motor skills. These activities provided an environment where children could explore and express their emotions naturally, contributing to the formation of socioemotional competence. Conclusion: The research highlighted the need for educational policies that integrate movement and emotional expression as fundamental parts of the children's school curriculum and the importance of intersectoral work between health and education.
DESCRIPTORS: Health; School; Medicine.

RESUMEN:
Objetivo: Analizar las aportaciones del circuito cuerpo, mente y movimiento para niños de 2 a 4 años en un Centro Municipal de Educación Infantil (CMEI) de Várzea Grande. Método: Se trata de una investigación-acción descriptiva con enfoque cualitativo realizada en un CMEI de Várzea Grande en el segundo semestre de 2024. La metodología utilizada fue la problematización, a partir de la cual se utilizaron otras metodologías activas para desarrollar el circuito cuerpo, mente y movimiento. El análisis se basó en el contenido y la investigación fue aprobada por el Comité de Ética en Investigación bajo el dictamen nº 6.823.508. Resultados: El circuito promovió el desarrollo de los niños, destacando la eficacia de las actividades en la promoción de la socialización, la autoconfianza y la motricidad. Estas actividades proporcionaron un entorno en el que los niños pudieron explorar y expresar sus emociones de forma natural, contribuyendo a la formación de la competencia socioemocional. Conclusión: La investigación señaló la necesidad de políticas educativas que integren el movimiento y la expresión emocional como partes fundamentales del currículo escolar de los niños y la importancia del trabajo intersectorial entre salud y educación.
PALABRAS CLAVE: Salud; Escuela; Medicina.

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IINTRODUCTION

The Health in Schools Program uses intersectoral strategies to bring education and health closer together, strengthen public policies and develop actions to promote health and prevent diseases and injuries. This program is strategically inserted in primary health care and also in early childhood education. [1]

Considering the importance of health actions in schools, the Univag medical course, through the Integrated Extension Program, made it possible to develop a circuit involving the body, mind and movement for children aged 2 to 4 years old at a Municipal Early Childhood Education Center (CMEI) in the city of Várzea Grande.

In this sense, it is important to understand that the long school journey of children in early childhood education begins when they attend the CMEI, a period of stimulation and interaction that are essential for the child's development. From this process of insertion into schools, problems related to the lack of psychomotor activation and sedentary behavior gradually become evident in the children's bodies and minds. In view of this highlighted problem, the Cultivar program was established by the education department to be developed in all educational centers in Várzea Grande. This program proposes the development of the School of Movement project, which is a tool that allows schools to work on physical education and the culture of movement in an inclusive way. [2]

This program aims to combine movement and teaching, which is extremely important because it takes into account the country's school reality, which increasingly confines students to classrooms, increasing sedentary lifestyles. The school's role is to use a pedagogy that includes movement in its teaching planning, so that everyone can enjoy its benefits for the integral development of children. [3]

"Movements are of fundamental importance for human life in its different aspects. Where there is life, there is movement; and life is impossible without movement." (4) Regular physical activity provides health and quality of life, as well as cognitive, affective and emotional development. Nowadays, Brazilians have been using technologies such as TV and the internet to access information, and excessive content, without the supervision of a qualified professional, can lead to several problems such as a sedentary lifestyle in adulthood, which originates in childhood. [2]

Physical activity is linked to healthy growth and development in children. During early childhood, these activities can reduce the risk of obesity, improve motor coordination, improve sleep quality, strength-

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en cognitive functions, benefit cardiometabolic health, and help develop psychological and social skills. [5]

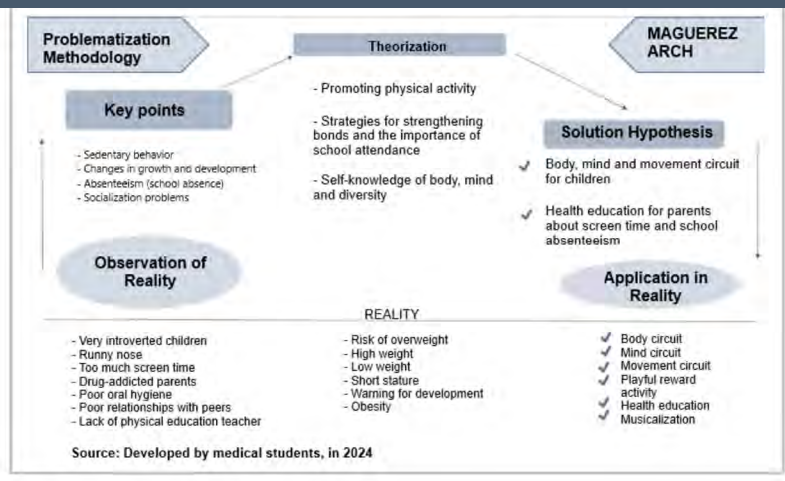
In this regard, the problem highlighted in the CMEI emerged, where sedentary behavior became visible in the children's speeches, changes in growth and development, school absence and coexistence problems. In order to minimize these problems and propose solutions, the proposal of the body, mind and movement circuit emerged. Thus, this research aimed to analyze the contributions of the body, mind and movement circuit for children aged 2 to 4 years in a CMEI in Várzea Grande.

METHOD

This is a descriptive, qualitative approach-action research, originating from the matrix research "Health actions in schools in the municipality of Várzea Grande", which emerged from the curricular university extension of the Univag Integrated Extension Program.

The methodology of problematization through the Maguerez arch allowed us to understand the reality, learn theoretically about the promotion of development and create strategies to minimize the problems encountered, as evidenced in the image below.

Image 1: Problematization methodology, based on the CMEI Maguerez Arch, 2024.



Using this methodology, the vaccination status and growth and development assessment were performed. After data collection, the information was filled out in medical records created by medical students and made available to the CMEI. A circuit was organized based on these activities.

In the body circuit, using the song "Head, Shoulder, Knee and Foot" by Bob Zoom, the children were encouraged to learn about the parts of the body, as well as their knowledge of textures, using pots containing (sand, stone, straw, cotton, marbles, elastic objects, dry leaves and water). In addition, a memory game was organized with the parts of the human body.

The puzzle with the parts of the human body, head, eyes, eyebrows, mouth, nose, legs, arms, feet and hair. This game was distributed on tables with about five students at each, with one game for each child.

In the mind circuit, the following actions were developed: Friends' Ball Game in which the children were asked to hold hands and go from a starting point holding hands to a designated point, kicking the ball interactively and without letting go of their hands. The emotions' bowling was a game composed of emotion pins (anger, joy, sadness, fear, anxiety); the child was asked to throw the pin at an emotion and then at the emotion they were feeling. The mirror game involved imitating movements and reflecting on what they saw and whether they liked it.

nd whether they liked it.

The movement circuit included the turtle race, where children were asked to crawl with a pillow on their backs, assimilating the pillow as the turtle's shell, and not being allowed to fall, until they reached the finish line, strengthening their balance. Another song worked on was Dead or Alive, in a circle format. Finally, the rabbit leaves the burrow, using the hula hoops, which were placed on the floor, spaced apart from each other, forming colorful "holes". The children had to be able to move between them easily. The game explained the children about the story of rabbits that have colorful holes and that they were going to play at being rabbits that enter their holes. The children had to enter the burrow in the sequence of the hula hoops available on the floor. All games lasted about 30 minutes each.

The 5W2H tool was used for planning and content analysis was used for data analysis, which involves pre-analysis, exploration of the material and processing of the results. The participants were asked to sign the informed consent and assent forms, totaling 72 authorizations for the research. The research was approved by the Ethics and Research Committee under opinion no. 6,823,508.

RESULT

Assessment of children's growth and development

It was observed that most children were eutrophic. Next, a risk of overweight was identified, followed by obesity and, lastly, thinness. Early childhood is essential for child development, both physical and cognitive, emotional and social. During this phase, children go through important growth milestones that influence their learning and interaction with the world. Regarding development, the majority presented development appropriate for their age, but a minority presented alert or delayed development.

The difficulties presented in development were related to language, involving difficulty in understanding and producing language,

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limited vocabulary, problems in articulating words; motor skills - difficulty in performing motor activities such as walking, running, jumping, picking up small objects; Cognition - difficulty in solving simple problems, following instructions, recognizing shapes and colors; and Socialization - difficulty in interacting with other children, presenting isolated or aggressive behavior.

Child developmental delays can have long-term consequences, affecting children's learning, social relationships, self-esteem, and quality of life. In addition, they can create a burden for families and education professionals. Given this scenario, it is essential to adopt urgent and coordinated measures, such as individualized assessment and early intervention to minimize the impacts of developmental delays. Therapies and activities must be adapted to the needs of each child. CMEI professionals must receive training to identify early signs of developmental delay and to implement intervention strategies, such as partnerships with families.

Promoting development through the body, mind and movement circuit

Most of the children actively participated in the activities. During the musicalization, the 3-year-olds sang and danced to the music, imitating the students in a more lively manner. Regarding the 2-year-olds, it was observed that the children in room 2C were more shy than in classes 2A and 2B.

Regarding the memory game, all the students faced difficulties, mainly because, in addition to finding the correct cards, they had to wait their turn, which caused some frustration. At this stage, it is expected that the children begin to get to know each other and have greater autonomy, and it is important to set limits and encourage independence. With this game, it was possible to stimulate both independence and limits, since each student had to wait their turn and follow an order.

As for the puzzle, the children who had the body and face pieces took longer to complete it, and only the 3-year-olds managed to assemble the complete doll. The 2-year-olds participated in the puzzle focusing only on the face. The activity encouraged memory, a milestone expected from the age of 4, and the activity was developed to promote development.

Regarding tactile sensitivity, it is understood that it should be stimulated from an early age, so this game promoted stimulation and knowledge of textures. The results showed that the children had difficulty describing the textures, whether they were soft or hard, and the activity was able to promote this knowledge.

In the mind circuit, the results were positive regarding the bowling of emotions. It was clearly the activity that most captivated all the children, achieving the goal of making them reflect and recognize the main emotions: joy, fear, sadness, anger and disgust. All the children showed great interest and many already knew the characters from the film, showing in the explanation their understanding of the situations that caused certain feelings, such as feeling disgusted when seeing a cockroach, sadness when being punished, anger when fighting with a friend, among others.

The use of different colored pins, representing the emotions of the film in a fun way, was a playful strategy that sought to facilitate the identification and choice of emotions. This visual approach not only made the activity more engaging, but also helped children associate colors and characters with specific feelings. By fostering a relaxed learning environment, we encouraged children to express themselves and recognize their emotions more naturally.

However, we noticed that when it was time to pick the pin, some chose the emotion they liked most and not the emotion requested and, in some classes, especially at 2-year-olds, despite knowing the characters, they had difficulty understanding the activity.

Furthermore, most of them were able to play the proposed game, especially the 3-year-old groups. When asked to guess the emotion they were feeling at the time, the most chosen emotion was joy, with one case in particular involving a child who chose anger. The child displayed aggressive behavior and defiant speech throughout the activity. Therefore, based on the problem identified, a referral was made to the guardians for a pediatric evaluation to monitor and verify more assertively the causes and whether this is part of the child's reality or a restricted moment in the proposed activity, since children's behavior is greatly influenced by what is heard and seen in the environment.

The purpose of this dynamic was to promote a welcoming environment for the children at CMEI, and activities that would be able to stimulate knowledge of the body and socio-emotional competence, which are fundamental for the healthy development of children. By encouraging them to explore and express their emotions, we created a safe space where they felt valued and understood. This welcoming environment is essential for teaching socio-emotional competence. The children learned to identify and deal with their emotions in a constructive way, strengthening the bond between their classmates.

In addition, building a positive school climate and developing socio-emotional skills will prepare the children for adult life. In this way, the activities developed taught them about emotions, but also how to cultivate empathy, self-knowledge and resilience, preparing them to build healthy relationships and face life's challenges from early childhood.

Regarding the friends' ball game, the activity helped develop motor skills, coordination and teamwork. Initially, the children walked hand in hand, a preliminary stage that was important to explain the rules and maintain physical connection between the participants.

After understanding the exercise, the children moved on to the phase in which they had to kick the ball while moving. The results of the activity showed significant differences between the age groups. The 3-year-old children performed better, being able to perform the activity with greater fluidity and coordination. They demonstrated more developed motor skills, allowing them to hold hands more easily while kicking the ball.

In contrast, 2-year-olds had more difficulty maintaining connection during the journey, which is expected given the stage of motor and social development at this age

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group. Overall, the activity not only provided moments of fun, but also promoted the development of motor and social skills, reinforcing cooperation and interaction between the children. The exchange of encouragement and laughter during the journey contributed to a positive and enriching environment, which is essential for early childhood learning.

Another proposed activity consisted of pairs of children, where one of them performed movements while the other imitated them, acting as a "mirror". After this phase, the children observed their own reflections in a mirror and reflected on what they saw, expressing whether or not they liked their own images.

The goal of the activity was to stimulate children's self-knowledge and self-esteem, promoting greater awareness of their bodies and movements. In the first groups, the children had difficulty carrying out the activity as initially planned, demonstrating resistance or a lack of understanding of the concept of imitation.

To overcome this, the approach was adapted: the children began to imitate the movements of the medical students who were leading the activity, facilitating interaction and engagement. The results of this adaptation were positive. The new approach allowed the children to feel more comfortable and confident, promoting a more collaborative environment.

Looking in the mirror also became a moment of self-discovery and acceptance, where many children expressed appreciation for their own movements and images. This contributed to strengthening self-esteem and self-knowledge, which are essential for children's emotional and social development.

In the movement circuit, "the bunny comes out of the hole" activity was carried out with children aged 2 to 4 years old and enabled them to develop social, motor and companionship skills. The results of the activity demonstrated greater participatory interest among the 2-year-old age group in this activity, since movement is fundamental for their overall development.

The results of the other activity, called the turtle race, promoted the development of balance, reasoning and spatial perception, in addition to the expression of happiness and desire for play. It is worth mentioning that it was necessary to have a physical representation of the game, so that it could be carried out later. Just by telling how it would be, the children had difficulty starting, but after demonstrating it, it was easily carried out.

The results for this activity were that after the children dropped the cushion, the children understood that going too fast was not the best option since they slowed down their movement to find balance. Later, the last activity of musicalization of the dead and alive, made it possible to develop attention, concentration, agility and motor coordination. The results showed better development with the age group of 3 and 4 years old, due to their better understanding of the requested instructions. The circuit included several activities of body, mind and movement, the activity ended with a playful day to award medals to all the children of the CMEI.

DISCUSSION

Children need to have the freedom to play, meaning the school environment needs to be fun and attractive. In addition, workshops can be strategies to encourage activities involving movement, allowing children to have the autonomy to carry out psychomotor and mental activities. Movement and the body are not exclusive objects of physical activity. It is in childhood that the education of the senses begins, such as: psychomotor approach, posture, tone, which allow the assessment of the child's development, perceiving their capacity for balance, locomotion and manipulation. [1]

Motor development is a matter of social development, the child's brain continues to develop until adolescence, therefore, it is understood that the more motor stimuli the child has, the greater the contribution to the myelination process. [6]

> “In this sense, an active school contributes to the early development of the nervous system, which allows for greater self-confidence in the child. The process of repetition is important for the child's development, as it allows for more permanent connections in the brain regarding new information.”

The development of the nervous system is a gradual process and pedagogical strategies, games and play are essential tools for good neurological development. Human performance is built through motor skills, senses, notions of time and space, among other elements. Movement pedagogy should be based on autonomy and the improvement of motor and cognitive skills. [1]

Childhood growth is a fascinating and complex process, full of physical and emotional transformations. Genetics, nutrition, adequate sleep, physical activity, family environment and general health also significantly influence growth. According to the Ministry of Health, memory and language skills increase between the ages of 4 and 6. [7]

The discriminative tactile system sends specific information to the brain regarding the size, shape and texture of objects. It is through touch that children learn about their surroundings, simultaneously developing a sense of body and their own limits. [8]

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years old should not be inactive for more than 1 hour at a time. Regarding screen time, for children aged 1 to 4 years old, screen time should not exceed 1 hour. [1]

Regarding sleep, children aged 1 to 2 should get 11 to 14 hours of good quality sleep; children aged 3 to 4 need up to 10 to 13 hours, including naps. Even though children are more active for their age, it is difficult to see them doing at least 60 minutes of physical activity. As children get older, sedentary behavior increases, and it is important to emphasize the importance of schools in instructing them to start physical activities. [1]

Considering this context, using games at school makes it possible to develop cognitive, emotional and social skills, allowing mutual collaboration and social interaction, and the development of executive functions. [9]

CONCLUSION

The body, mind and movement circuit promoted development and enriching experiences for children, even in their early years of life. The results highlighted the effectiveness of the activities in promoting socialization, self-confidence and motor skills. The activities provided an environment where children could explore and express their emotions naturally, contributing to the development of socio-emotional competence. The inclusion of physical and sensory activities proved to be essential to address the growing problem of sedentary behavior.

This research highlights the need for educational policies that integrate movement and emotional expression as fundamental parts of the early childhood school curriculum. Finally, it is understood that intersectoral work between health and education is necessary to ensure that children's physical and emotional needs are met.

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