



Training and Assistance to Enhance Toilet Training Success among Children Aged 2–3 Years in Daycare Centers

Amelisa Wulandari¹✉, Lilis Kurniati¹, Nur Hanifa¹

¹Universitas Islam Negeri Mahmud Yunus Batusangkar, Indonesia

✉Email: amelisawulandari@gmail.com

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Article Info	Abstract
<p>Received: 05-10-2024</p> <p>Revised: 24-12-2024</p> <p>Accepted: 12-03-2025</p> <p>Published 30-04-2025</p> <p>Keywords: Child Readiness, Community Service, Early Childhood, Parental Involvement, Participatory Action Research, Toilet Training</p>	<p>Background: Early childhood is a critical stage for developing independence in self-care; however, many children aged 2–3 years still experience difficulties in recognizing and practicing proper toilet training, highlighting the need for interactive and developmentally appropriate approaches.</p> <p>Aims: This community service program aims to enhance the knowledge and success of toilet training for children aged 2–3 years through interactive and engaging activities.</p> <p>Methods: This program employed a Participatory Action Research (PAR) approach consisting of planning, action, observation, and reflection stages. The planning stage involved identifying toilet training problems, conducting discussions with caregivers and parents, and designing interactive activities. The action stage focused on implementing toilet training practices through engaging and context-based activities. The observation stage involved monitoring and documenting children’s progress during the training process. The reflection stage included evaluating outcomes and identifying areas for improvement. Data were collected through observation and documentation and analyzed descriptively.</p> <p>Results: The results indicate improvements in children’s toilet training abilities, including increased independence, better understanding of toileting routines, and more consistent behavior. Children showed progress in recognizing the need to use the toilet and performing toileting activities with reduced assistance. Additionally, caregivers and parents reported positive behavioral changes and increased awareness of effective toilet training strategies.</p> <p>Conclusion: Interactive and context-based toilet training activities are effective in improving toilet training success among young children. The integration of structured activities, caregiver involvement, and continuous monitoring creates a supportive learning environment that promotes independence. This approach can be applied as an alternative method in early childhood care settings to support the development of essential self-care skills.</p>
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INTRODUCTION

One of the essential lessons applied in early childhood education at the daycare is toilet training (Donnelly & Karsten, 2024). Toilet training is an initial process of teaching independence in a child's life (Kostekci et al., 2023). According to Fleischmann (2024), toilet training is an effort made to teach children to control urination and defecation in the proper place. Introducing toilet training at an early age helps develop habits that can facilitate the toilet training process, making it more successful and smooth (Capstones & Douglass, 2024). This good habit should be instilled early on because children are at the golden age stage, which prepares them for the next stages of development until they reach adulthood.

Teaching children about urination or defecation will be more effective if started early. Good habits in urination and defecation will continue into adulthood (Costa et al., 2019). Poor behavior from parents or teachers in implementing toilet training can have negative impacts, both physically and mentally (Eliza & Priyanti, 2025). Consistent guidance and positive reinforcement can help children develop a sense of independence and responsibility in managing their toileting needs (Nilsson et al., 2022). Moreover, introducing proper hygiene practices during toilet training can prevent potential health issues and instill lifelong cleanliness habits.

Successful toilet training has many positive effects on children. These include the ability to control urination and defecation and the initial formation of independence, allowing children to manage it themselves (Cagliani et al., 2021; Warmansyah et al., 2024). Furthermore, children can learn about different body parts and their functions. According to Fauziyyah et al., (2021), toilet training is also essential in a child's personality development as it is the first moral training given to a child, significantly impacting their future moral development. Poor habits from some parents, such as allowing their children to urinate or defecate in inappropriate places, can negatively impact toilet training (Cagliani, 2023). Additionally, the habit of using diapers at night can lead to dependence and persistent bedwetting habits (Khairiyah et al., 2024). Children who are not taught toilet training early may become difficult to manage and stubborn.

Implementing toilet training is crucial in shaping a child's character and building mutual trust in the parent-child relationship (Fadylah et al., 2024; Sari et al., 2024). Failure to teach proper toilet training can affect a child's discipline, making them less sensitive to their surroundings and causing them to urinate or defecate in inappropriate places (Wiyani, 2020). Parents' failure to educate their children in toilet training can lead to stubborn and unruly behavior. Without early toilet training, it becomes increasingly difficult for parents to educate their children as they grow older (Nurherliyany et al., 2024). Toilet training is also part of psychomotor development, as it requires muscle maturation around the waste elimination areas (anus and urinary tract) (Wulandari & Rachmawati, 2024). The ability to control the urethral sphincter muscles and the urge to urinate and defecate begins to develop

with age (Turpin et al., 2024). However, each child has different abilities in performing these exercises.

Some experts believe that children aged 24 months to 3 years are effectively taught toilet training because they have the language skills to understand and communicate (Islamiyah & Anhusadar, 2022). Physical, mental, and intellectual preparation is also necessary for toilet training (Turpin et al., 2024). This preparation is expected to help children control their urination and defecation. However, the process can sometimes fail due to internal or external factors. Internal factors include congenital abnormalities of the urinary tract, urinary tract infections, polyuria, or neurogenic bladder (Naenen et al., 2025). External factors may involve a lack of attention and care from parents, leading to neglected toilet training, or starting toilet training too early. Other factors influencing toilet training failure include parental knowledge, readiness of both child and parent, the child's awareness, and the method of defecation (Barutçu et al., 2024).

When training children to use the toilet, the correct method is needed for easy understanding, and patience and gradual training are necessary for successful toilet training. Environmental factors, parenting styles, and education should be considered during toilet training. At home and school, collaboration between parents and teachers is essential for the child's toilet training skills. Consistent teaching by parents and teachers can yield positive results. Additionally, teaching toilet training based on Islamic principles is more efficient, as it aligns with Islamic etiquette and teaches cleanliness and hygiene, essential for religious practices. A proper understanding of toilet training also impacts personal hygiene (Nilsson et al., 2022). Cleaning oneself after urination or defecation should be thorough to prevent various diseases, such as skin or genital infections caused by remaining bacteria. Education is a crucial effort in helping to implement toilet training for children (Ölcer & Cal, 2022). Teachers act as guides and role models for young children (Andi et al., 2022). Learning to use the toilet cannot be done until the child is able and willing, but teachers must stimulate the child to recognize the need for urination and defecation until they can do it independently.

Initial observations at the UIN Mahmud Yunus Batusangkar Laboratory Daycare showed a unique daily practice of toilet training, unlike other kindergartens. This activity positively impacted the children's independence and confidence, evident in their habit of asking permission to use the bathroom and doing so independently. Toilet training at the daycare is conducted for 2 hours once a day, with children lining up neatly in front of the bathroom, taking turns under teacher supervision. The etiquette of entering, using, and leaving the bathroom is well-followed with teacher guidance. Children clean themselves after using the bathroom and wash their hands before opening their lunch during break time. Based on this background, the researcher was motivated to conduct a study on enhancing the success of toilet

training for children aged 2-3 years at the UIN Mahmud Yunus Batusangkar Laboratory Daycare.

METHODS

Community Service Design

This community service program was designed using a structured and participatory framework that integrates educational intervention with practical implementation in early childhood settings. The design emphasized interactive, child-centered activities to support toilet training development among children aged 2–3 years. The program combined elements of training, mentoring, and direct practice to ensure that both children and caregivers were actively involved in the learning process. The design also aligned with the principles of community service (PKM), which focus on solving real problems through applicable and sustainable interventions. A series of structured sessions were developed to ensure gradual learning, reinforcement, and consistency in practice. The integration of educational materials, guided activities, and routine-based learning ensured that the intervention was both systematic and adaptable. This design allowed the program to be implemented effectively while maintaining measurable outcomes.

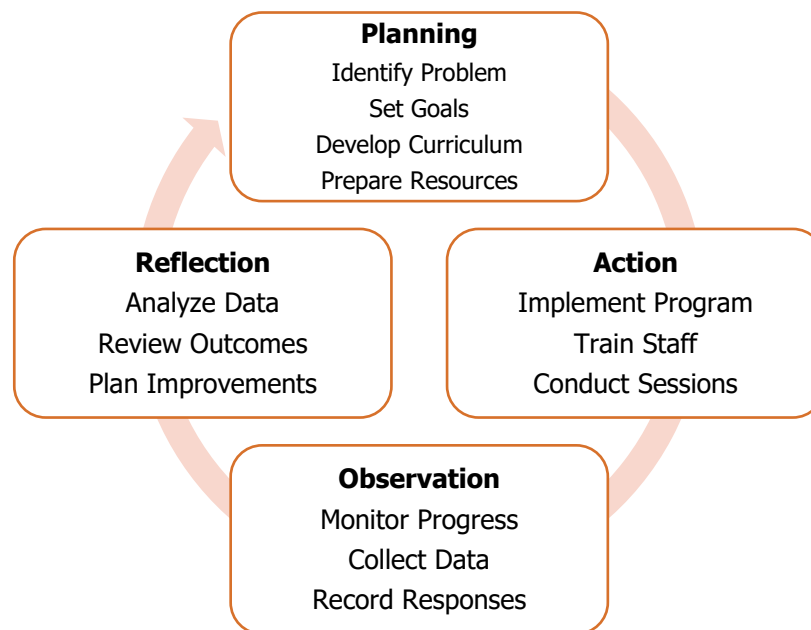


Diagram 1. Stages of PAR Method

Planning Stage

In the planning stage, the team began by identifying the main problems related to toilet training among children aged 2–3 years. Initial observations were conducted to understand children’s readiness, behavioral patterns, and challenges in toilet use. Discussions were held with caregivers and parents to gather additional insights and ensure that the program addressed real needs in the daycare setting. Based on this information, specific and measurable goals were established to guide the intervention process. The team then developed a structured and comprehensive

curriculum tailored to early childhood characteristics. Educational materials, including visual aids and activity-based tools, were designed to support interactive learning. Necessary resources such as facilities, schedules, and supporting equipment were also prepared to ensure smooth program implementation.

Action Stage

During the action stage, the planned program was implemented through a series of structured and interactive toilet training activities. Caregivers and staff were first provided with guidance and training to ensure they understood the methods and objectives of the program. The sessions were then conducted with children using engaging, context-based approaches that emphasized learning through practice and repetition. Activities included demonstrations, guided practice, and reinforcement of toileting routines in a supportive environment. Children were encouraged to actively participate and gradually develop independence in toilet use. The program also emphasized consistency between daycare practices and home routines by involving caregivers in the process. Each session was conducted systematically to ensure that all aspects of toilet training were introduced and reinforced effectively.

Observation Stage

In the observation stage, the progress of the children was closely monitored throughout the implementation of the program. Observations focused on key indicators such as children's ability to recognize toileting needs, perform toileting steps, and demonstrate independence. Data were collected consistently using structured observation techniques to ensure accuracy and reliability. The team recorded children's responses, behavioral changes, and levels of participation during each session. Any difficulties or challenges encountered by the children were also documented to provide a comprehensive understanding of the learning process. This stage allowed the team to track development over time and identify patterns of improvement. The systematic documentation ensured that the collected data could be used for meaningful evaluation.

Reflection Stage

The final stage involved analyzing the collected data to evaluate the overall effectiveness of the program. The results from observations were reviewed to determine the extent of improvement in children's toilet training abilities. Reflection sessions were conducted with caregivers and staff to discuss the outcomes and share experiences during the implementation process. Feedback from these discussions was used to identify strengths, weaknesses, and areas that required improvement. The team then formulated recommendations to enhance future

implementation of similar programs. Adjustments were proposed to improve both the learning strategies and the level of engagement among participants. This reflective process ensured that the program not only achieved its immediate goals but also contributed to sustainable improvements in early childhood care practices.

Location and Participants

The community service program was conducted at the UIN Mahmud Yunus Batusangkar Laboratory Daycare, located in Batusangkar, which serves as a practical learning environment for early childhood education. The participants of this program consisted of children aged 2–3 years as the primary beneficiaries, along with caregivers and teachers who played a significant role in facilitating the activities. The involvement of caregivers was essential to ensure consistency between daycare practices and home routines. The program was implemented by three students from the Early Childhood Islamic Education Study Program as part of an integrated Field Practice Program and Community Service Program (KKN). The selection of this location was based on identified needs related to toilet training challenges among children in the daycare. The setting provided a real and relevant context for implementing the intervention. This ensured that the program outcomes were directly applicable and beneficial to the participants.

Data Collection Techniques

Data collection in this program was conducted using systematic and structured techniques to ensure that all observed changes were measurable and well-documented. The primary method used was direct observation, focusing on children's behavior, participation, and progress in toilet training activities. Observation sheets were developed based on specific indicators such as independence in toileting, recognition of bodily cues, consistency in routines, and responsiveness to guidance. In addition to observation, documentation methods were used, including field notes, activity records, and visual documentation to support the validity of the data. Data were collected continuously during the implementation process to capture both initial conditions and progress over time. Caregivers' feedback was also considered as supporting data to provide a more comprehensive understanding of children's development. This combination of techniques ensured that the data collected were both reliable and reflective of actual conditions in the field.

Data Analysis Techniques

The data analysis was conducted using descriptive quantitative analysis to measure the effectiveness of the program. The collected data were compared between pre-intervention and post-intervention conditions to identify changes in children's toilet training abilities. Each indicator was quantified in percentage form to provide a clear and measurable representation of progress. The level of

improvement was calculated by determining the difference between initial and final scores for each indicator. This method allowed for straightforward interpretation of results while maintaining alignment with the practical nature of community service activities. The analysis also considered qualitative observations to support and explain the quantitative findings. By combining numerical data with descriptive insights, the analysis provided a comprehensive understanding of the program's impact. This approach ensured that the results were both measurable and meaningful for evaluating the success of the intervention.

RESULTS AND DISCUSSION

Results

The implementation of toilet training by teachers at the UIN Mahmud Yunus Batusangkar Laboratory Daycare focuses on aspects such as an adequate school environment, children's readiness, parental motivation, and teaching materials related to toilet training that will be provided by the teachers to the children. In this stage, teachers provide material about toilet training. This material is initially given by the teachers when the children enter the school at the beginning of the new academic year. The material provided by the teachers includes introducing the toilet area and its functions, manners when entering and exiting the toilet, the procedures of toilet training, and the benefits of correctly performing toilet training.

Toilet training lessons for the children are conducted in the morning when they arrive at school. The children are accustomed to urinate first, then before starting to learn, before eating, and before napping in the afternoon. With this routine applied several times, the children become accustomed to performing toilet training in their daily lives. This is evidenced by the researcher's observations that nearly all the children can go to the bathroom and urinate independently. Although the children can perform toilet training independently, the teachers still monitor them when they ask for permission to go to the bathroom.

Implementing toilet training at school requires the assistance and support of the parents, considering the significant role parents play at home. Parents are the primary shapers of their child's personality, so they must always teach and convey good habits to their children as an investment for their future. In practice at the UIN Mahmud Yunus Batusangkar Laboratory Daycare, teachers discuss with parents to support and help implement toilet training when the children are at home.

Table 1. Observed Readiness in Toilet Training

Readiness Aspect	Before Intervention (%)	After Intervention (%)
Physical Readiness	40%	85%
Psychological Readiness	35%	80%
Intellectual Readiness	30%	75%

The table outlines the observed readiness aspects in toilet training for children before and after the intervention at the UIN Mahmud Yunus Batusangkar Laboratory Daycare.

Physical Readiness

Before the intervention, 40% of the children exhibited physical readiness for toilet training. This readiness was demonstrated by their ability to perform tasks such as sitting, standing, and removing their pants independently. However, after the intervention, there was a notable improvement, with 85% of the children showing significant physical readiness for toilet training. This improvement highlights the effectiveness of the program in enhancing the children's physical capabilities needed for toilet training.

Psychological Readiness

In terms of psychological readiness, only 35% of the children showed readiness before the intervention. This readiness was characterized by behaviors such as not being fussy or crying when needing to use the toilet and displaying a happy expression. After the intervention, 80% of the children demonstrated psychological readiness. They became more calm and comfortable during the toilet training process, indicating that the program effectively addressed their psychological needs and made them more at ease with toilet training.

Intellectual Readiness

Before the intervention, 30% of the children showed intellectual readiness for toilet training, including understanding the difference between urinating and defecating and recognizing the urge to use the toilet. After the intervention, this increased to 75%, indicating improved cognitive understanding and ability to follow toilet training instructions. Overall, the intervention significantly enhanced children's physical, psychological, and intellectual readiness, demonstrating its effectiveness in preparing them for independent toileting. In addition, parental involvement played an important role, as parents showed enthusiasm and actively supported toilet training at home, both verbally and through practice. They became more responsive to their children's needs and reinforced learning from school, creating strong synchronization between home and school. Through continuous motivation and practice, children were encouraged to apply toilet training consistently, increasing the likelihood of successful outcomes.

Children's readiness for toilet training includes physical, psychological, and intellectual aspects. Physical readiness is reflected in abilities such as sitting or standing independently, managing clothing, and maintaining regular urination patterns, which are monitored by teachers in collaboration with parents. Psychological readiness is observed through children's emotional responses, such as being calm, not fussy, and showing confidence or positive expressions during

toileting activities. Intellectual readiness involves the ability to differentiate between urination and defecation, recognize bodily signals, and imitate appropriate toileting behavior and etiquette. In addition, adequate facilities and infrastructure, such as toilets, clean water, and supporting bathroom tools, play a crucial role in ensuring the successful implementation of toilet training.

Habit of asking for permission to go to the toilet: Along with implementing toilet training lessons at school, teachers also educate children on the manners required when needing to urinate during class hours. Teachers inform children to ask for permission before going to the toilet. This practice ensures that teachers know the child's whereabouts and continue to monitor them, reducing any anxiety when classmates or parents inquire about the child's location.

Independently performing toilet training: As toilet training education is applied both at school and at home, children become capable of urinating independently without assistance. This occurs because children know what to do and what not to do. However, teachers and parents must continue to monitor the child's activities during toilet training to ensure proper execution.

Understanding Islamic toilet etiquette: Toilet training education at the UIN Mahmud Yunus Batusangkar Laboratory Daycare is based on Islamic teachings. Before being allowed to go to the toilet, children are encouraged to recite a prayer for protection. Teachers also remind children not to bring food or talk inside the toilet. After leaving the toilet, children are encouraged to recite a prayer in front of the teacher. This practice helps children understand that everything, including toilet manners, is guided by Islam.

Proper understanding of toilet training significantly impacts personal hygiene. Thorough cleaning during urination or defecation is essential to prevent various diseases, such as skin irritation or genital infections caused by residual waste. Education is crucial in helping implement toilet training for children. Teachers act as guides and role models for early childhood. Toilet training cannot be effective until the child is ready and willing, but teachers must also stimulate children to recognize their need to urinate or defecate and successfully perform these actions independently. Consistent positive reinforcement from teachers is key to successful toilet training.

Initial observations by researchers at the UIN Mahmud Yunus Batusangkar Laboratory Daycare revealed unique practices compared to other kindergartens, specifically daily toilet training activities. These activities positively impact children's independence and self-confidence. Observations showed that nearly all children can ask for permission and go to the bathroom independently. Toilet training lessons are conducted for two hours each day, with children queuing orderly outside the bathroom. Children enter the toilet alternately under teacher supervision, practicing the manners of entering, exiting, and washing hands before meals. Based on these

observations, the researchers were motivated to conduct a study on enhancing the success of toilet training for children aged 2-3 years at the UIN Mahmud Yunus Batusangkar Laboratory Daycare.



Figure 1. Photos of Children Engaged in Toilet Training Activities

Discussion

The findings indicate that the implementation of structured and routine-based toilet training activities significantly improved children's physical, psychological, and intellectual readiness. This aligns with recent studies emphasizing that readiness-based approaches are essential for successful toilet training, as children's developmental maturity directly influences independence and skill acquisition (Andi Agusniatih et al., 2022; Barutçu et al., 2024; Cagliani, 2023; Turpin et al., 2024). The increase from 40% to 85% in physical readiness reflects how repeated practice and motor engagement strengthen children's self-care abilities. Similarly, research highlights that consistent routines and environmental support enhance motor coordination and toileting independence in early childhood (Nor Azman et al., 2024; Yolal Karimov, 2025). The structured exposure to toileting routines in this program appears to provide the necessary scaffolding for children to gradually master these skills.

Improvements in psychological readiness, increasing from 35% to 80%, suggest that emotional comfort and reduced anxiety play a critical role in toilet training success. Children who feel and supported are more likely to engage positively in toileting activities, which is consistent with findings that emotional readiness and caregiver responsiveness significantly influence toileting outcomes (Assimamaw et al., 2024; Dabney et al., 2023). The use of routine, encouragement, and positive reinforcement in this program likely contributed to creating a supportive environment that minimized resistance and fear (Rozi et al., 2022). Moreover, studies show that early childhood interventions that incorporate emotional support and child-centered approaches lead to more sustainable behavioral changes (Huh et al., 2022; Shkalim Zemer et al., 2023). This indicates that psychological readiness is not only a prerequisite but also an outcome of effective training strategies.

The increase in intellectual readiness from 30% to 75% demonstrates that children developed a better understanding of toileting concepts, including

recognizing bodily signals and differentiating between urination and defecation. This finding is consistent with research indicating that cognitive readiness, particularly awareness of bodily functions, is fundamental to successful toilet training (Wyndaele & Vermandel, 2023). Educational interventions that combine explanation, demonstration, and repetition have been shown to enhance children's comprehension and application of toileting routines (Alias et al., 2025; Van Aggelpoel et al., 2018). The integration of daily practice with explicit instruction in this program appears to support cognitive development alongside behavioral change. Such approaches enable children to internalize routines and apply them independently in different contexts.

In addition, the strong involvement of parents and the synchronization between home and school practices contributed significantly to the effectiveness of the program. Parental engagement has been widely recognized as a key factor in reinforcing toilet training behaviors and ensuring consistency across environments (Osmanlı & Şahin, 2024; Verkuijl et al., 2023). Collaborative approaches between educators and parents create a unified learning experience that accelerates children's adaptation and habit formation. Furthermore, the availability of supportive facilities and a clean, child-friendly environment also plays a crucial role in facilitating successful toilet training (Özdemir, 2023). The combination of environmental support, caregiver involvement, and structured routines in this program reflects best practices identified in contemporary early childhood research.

Community Service Contribution

This community service program contributes to improving early childhood self-care development, particularly in fostering independence in toilet training among children aged 2–3 years. At the participant level, the program enhances children's physical, psychological, and intellectual readiness through structured, routine-based, and interactive learning activities. The integration of school-based practices with parental involvement strengthens consistency between home and daycare environments, which is essential for habit formation. At the practitioner level, caregivers gain practical insights into implementing effective toilet training strategies that are developmentally appropriate and responsive to children's needs. Furthermore, the program demonstrates that a participatory and routine-oriented approach can be effectively applied in early childhood settings. The implementation also reflects a practical model of community service that directly addresses real developmental challenges in early childhood education contexts.

Limitations and Suggestions

Despite the positive outcomes, several limitations were identified during the implementation of this program. The duration of the intervention was relatively

limited, which may affect the long-term consistency of children's toilet training habits. In addition, differences in children's developmental readiness influenced the pace and level of progress achieved during the program. Variations in parental involvement at home also contributed to differences in reinforcement outside the daycare setting. Furthermore, environmental factors such as facilities and supervision intensity may affect the sustainability of outcomes. Based on these limitations, future programs are recommended to include longer implementation periods and continuous monitoring to ensure lasting behavioral change. Strengthening collaboration between teachers and parents through structured communication and follow-up activities is also suggested to enhance consistency and effectiveness.

CONCLUSION

The toilet training program at the UIN Mahmud Yunus Batusangkar Laboratory Daycare successfully enhanced children's readiness for toilet training across physical, psychological, and intellectual aspects. The program improved children's ability to recognize toileting cues, request permission appropriately, and perform toileting activities independently. In addition, children developed an understanding of proper toilet etiquette in accordance with Islamic principles, supporting both behavioral and moral development. The success of the program was strongly influenced by the integration of structured routines, supportive learning environments, and active parental involvement. These findings indicate that a participatory and routine-based approach is effective in promoting early childhood independence in self-care activities. Such approaches can be applied and adapted in similar early childhood education settings to support the development of essential life skills.

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AUTHOR CONTRIBUTION STATEMENT

The authors (AW, LK, NH) collaboratively contributed to the conceptualization, implementation, and evaluation of the community service program. All authors were involved in data collection, analysis, interpretation of findings, and manuscript preparation. All authors have reviewed and approved the final version of the manuscript.

AI DISCLOSURE STATEMENT

The authors used ChatGPT to assist in organizing and refining the academic writing of this manuscript. All content has been carefully reviewed, revised, and validated to ensure accuracy and academic integrity. The authors take full responsibility for the final version of the manuscript.

CONFLICTS OF INTEREST

The authors declare that there are no financial, institutional, or personal conflicts of interest that could have influenced the implementation of this program, the analysis of the data, or the preparation of this manuscript.

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