



Yoga Based on Shalat Movement to Develop Post-Pandemic Children's Self Control

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Abstract

Purpose – This study aimed to develop yoga activities based on prayer movements to train children's self-control. The subjects in this study were early childhood children in the TK B group.

Design/methods/approach – This research uses development research (R&D). Feasibility assessment of the development of prayer movement-based Yoga to train children's self-control based on the assessment of media experts, yoga experts, and group B students as test subjects. Analysis using qualitative and quantitative data analysis, collecting data using interview guidelines, observation documentation, and questionnaires.

Findings – The results showed that the development of prayer movement-based Yoga through a series of trials and expert validation, was workable for training children's self-control which included (1) the ability to regulate behavior, (2) the ability to regulate stimuli, (3) the ability to consider things and events, (4) the ability to evaluate events and things positively, and (5) the ability to determine actions.

Research implications/limitations – This research can be the basis and guideline for further research related to Yoga based on prayer movements in training self-control in early childhood. Researchers suggest that there are other studies regarding using Yoga based on prayer movements to train children's self-control and other abilities from an early age. The drawback of this study is that it did not conduct a practical test due to time constraints.

Practical implications – This research produces Yoga products based on prayer movements. Teachers and parents can use it to train children's self-control from childhood. So that the results of developing this product can be helpful, and other schools can practice it in training children's self-control or other abilities after the pandemic that hit the world.

Originality/value – The development of Yoga based on prayer movements can train the self-control abilities of early childhood. Researchers recommend using prayer movement-based yoga in kindergartens to train children's self-control.

Keywords Yoga meditation, Pray movement, Self-control

Paper type Research paper

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1. Introduction

The COVID-19 pandemic has changed the entire order of life, both in terms of economy, society, politics, and even education, where initially, children learn from school, and children have to study at home or commonly known as BDR (learning from home). When children learn from home, the intensity of children playing with peers becomes non-existent. Children must continue to learn and play from home during this pandemic. This condition will affect the developing children's pro-social behavior (Hasanah & Drupadi, 2020).

Several reports show that loneliness increases during the pandemic (Killgore et al., 2020). Internet use compensation theory (Kardefelt-Winther, 2014) shows that when individuals have psychosocial problems in the real world, they will use virtual networks or cell phones to escape negative feelings, such as loneliness, because the expected social interactions do not match reality (Kagan & Elbaz Kachlon, 2022).

Self-control is an individual's skill in understanding situations in the environment and the ability to control behavior, socialize with the environment, and control behavior (Bratslavsky et al., 1998). Self-control is a bridge concept from various disciplines related to impulsivity, awareness, self-regulation, delaying gratification, hyperactivity, attention, executive function, and willpower. Neuroscientists study self-control as a sub-executive function centered on the brain's frontal cortex (Eslinger et al., 2004). Geneticists also explain that self-control is based on genetic and environmental influences (Bouchard Jr. 2004) that develop from early childhood (Kochanska et al., 2001; Mischel et al., 1989; Rodriguez-Ricardo et al., 2019).

In longitudinal studies, self-controlled students could score higher on subjects (Duckworth et al., 2010), predicting social competence and positive relationships with adults and peers (Eisenberg et al., 2014). Shows lower rates of cigarette and alcohol use (Duckworth et al., 2019; Romer et al., 2010) and better physical and mental health (Caspi et al., 1998; Eisenberg et al., 2014; Gagne, 2017; Gagne & Nwadinobi, 2018; Moffitt et al., 2011).

Self-control indicates future success (Montroy et al., 2016) and good adaptation (Tangney et al., 2018). An essential key to success in life (Baumeister et al., 2007). Self-control is related to various areas such as physical health, exercise, substance dependence, crime, finance, perception of the severity of the Coronavirus 2019 (COVID-19) disease, mental health problems, pro-social behavior, academic achievement, commitment to playing online games, internet addiction (Burt, 2020; Duckworth et al., 2019; Englert et al., 2021; Gerdtham et al., 2020; Schmidt-Barad & Uziel, 2020; Zahra & Hayati).

Low self-control hurts stress, anxiety, and depression (Nielsen et al., 2020). It causes unemployment (Burt, 2020; Caspi et al., 1998) and characterizes lawbreakers (Caspi et al., 1998; White et al., 1994). Self-control does not develop spontaneously but through a process that requires effort. Humans need to learn how to control their emotions to adapt well. Because by having good self-control skills, children will avoid the tendency to behave negatively or respond to aggression. DeWall, Finkel & Denson assert that by controlling themselves, individuals can prevent aggressiveness in others and those closest to them (Kusumawardhani et al., 2018).

Self-control formation through continuous practice. One of them is yoga practice. Yoga helps children communicate their ideas and feelings, articulating their feelings, thoughts, and behaviors that have not developed optimally. Yoga is an alternative to increasing positive behavior and a substitute for medical intervention in children with concentration problems (Wirmayani & Supriyadi, 2018). The yoga method is simple instruction. It is fun and does not require many materials.

Yoga for children is massive in society. Based on a 2014 survey, it was estimated that 19.4% of the population in Germany did Yoga, the main reason Yoga improves physical and mental health conditions and improves the performance of both (Cramer et al., 2019). Moreover, according to a national survey in Australia, most respondents said that Yoga (Cramer et al., 2019) could treat health problems or medical conditions, and 53% of respondents thought their condition had improved because of practicing Yoga. Mindfulness-based practices, particularly meditation and Yoga, and breathing techniques can improve attention, concentration, and flexibility and reduce stress (Bishop et al., 2004; C. Cook-Cottone et al., 2020; C. P. Cook-Cottone, 2017).

The benefits of Yoga include reducing body, mind, and mental tension and strengthening it when dealing with stress. According to Sindhu, another benefit of Yoga is that it can provide deep relaxation for the body, increase self-confidence and increase the ability to think positively (Widyasari & Fridari, 2013). Some benefits of practicing Yoga for teachers and children: are practicing self-control, practicing emotional management, training in understanding what they feel, and responding to the feelings of others (Purniasih & Suyanta, 2019), stress and anxiety management (Breedvelt et al., 2019; Sarkar et al., 2021) and raising awareness (Vagga & Dhok, 2020).

From a health perspective, Yoga has been shown to increase B-endorphins, reduce cortisol levels, reduce inflammatory cytokines, increase neuroplasticity biomarkers, and improve quality of life, to calm hospitalized patients' minds (Pasioka, 2022; Venkatesh et al., 2020). Other research findings revealed that Yoga causes an increase in fasting blood sugar levels, stabilizes heart rate, lowers cholesterol levels (Low-Density-Lipoprotein) improves metabolic and vascular functions of the human body (Cramer et al., 2019; Eroglu et al., 2014; Falsafi, 2016; Yang & Kim, 2016). Other studies reveal that Yoga enhances immunity by increasing circulation, eliminating toxins, modulating inflammatory mediators, and strengthening the immune system (Sarkar et al., 2021; Venkatesh et al., 2020), protecting the adrenal system hypothalamus, decreasing corticosteroids (Arora & Bhattacharjee, 2008; Büssing et al., 2012; Woodyard, 2011).

Based on the description above, Yoga has many benefits, one of which can train self-control. In addition, researchers have an interest in developing yoga poses or movements by imitating prayer movements from several examples of yoga movements. The prayer movement has several therapeutic aspects, including sports, meditation, auto suggestions, and togetherness. The aspect of meditation in the prayer movement is to focus attention and thoughts on something abstract, namely Allah SWT, consciously. Here, a Muslim does it by praying solemnly and doing dhikr. Some meditations in Islam, namely muqorobah, uzlah, prayer, zikr, and meditation (Tebba & Hasan, 2004).

Besides the therapeutic aspect, Adi and Haryanto mention that prayer also contains muscle relaxation, relaxation of sense awareness, and cathartic aspects. As with Yoga, every prayer movement has tremendous benefits for the physical or mental. So, in this study, researchers compiled a study to find out how the development of prayer movement-based Yoga on the self-control ability of early childhood. The reason is that few studies still examine self-control since early childhood (Dadjoo & Gharibzadeh, 2022).

2. Methods

The researcher uses research and development (R&D) methods. According to Gay, development research attempts to effectively develop a learning product and not test a theory (Hanafi & Islamica, 2017). The development model used in the research on the development of Yoga based on prayer movements in improving the self-control abilities of early childhood is the Borg & Gall model. According to Borg & Gall, "Educational Research and Development is a process used to develop and validate educational products." (Purnama, 2016). Because of various considerations, this research and development step was simplified into nine stages as figure 1.

The subjects in this study have children aged 5-6 years or group B students at a TK in Tangerang City. Researchers chose research subjects based on the criteria of children with low or fewer self-control abilities. The object of research is the problem to be studied. This study will look at the self-control abilities of children aged 5-6 years through yoga training based on prayer movements.

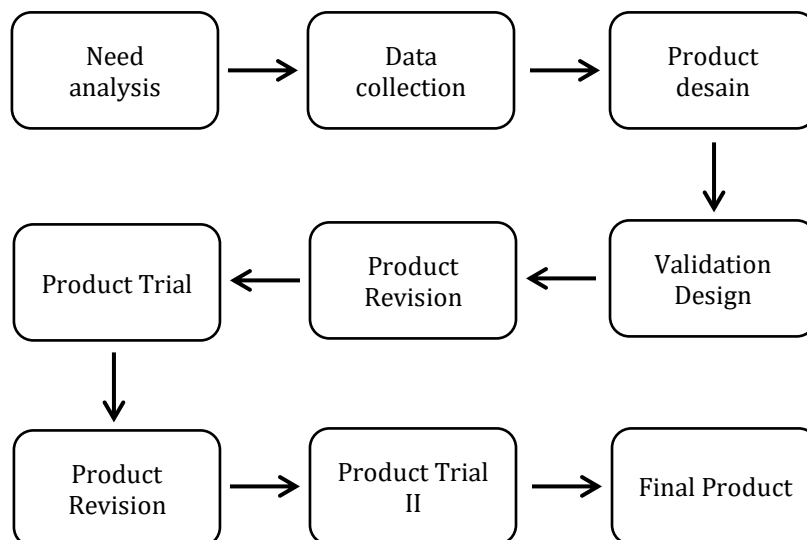


Figure. 1 Stages of using the Research & Development (R&D) Method According to Borg and Gall

3. Result

3.1. Description of Product Development

Product development in this research and development uses the Borg and Gall model, which comprises several stages: potential and problem search, data collection, product design, product validation, product revision, product trial I (limited), product revision, and product testing. Try product II (field test). The following result from the development of prayer movement-based Yoga in practicing self-control abilities in early childhood.

3.2. Description of Product Development

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3.3. Need Analysis

The first step was to interview teachers in grades B1 and B2 and make observations to get information and descriptions about the self-control abilities of children aged 5-6 years in a TK. At this interview stage, the researcher knows the classroom's teaching and learning process, the activities in stimulating self-control, and the child's self-control ability condition.

From the interview, the researcher found some data as (a) the lack of stimulation of self-control in children in learning activities in class, (b) there are no special activities to train children's self-control skills at school, (c) the type of self-control children who use various: over control, under control, and control, (d) the lack of parental contribution in training children's self-control skills at home (e) have never used Yoga in learning activities at school. Based on these data, researchers developed activities to train children's self-control skills and can be fun activities for children.

3.4. Data Collection

After obtaining the potential and problems, the next step is to plan a solution to the problem. Researchers change existing yoga movements with prayer-based Yoga. The stages that are prepared in modifying yoga movements include: Preparing yoga designs, considering the benefits of yoga activities, and planning a theme to change yoga moves.

3.5. Design Validation and Revision I

After developing the product design, the researcher conducted a product assessment of a yoga expert and a sports lecturer at a university in Jakarta. Based on the expert's assessment, there are several improvements, including (a) adding a variety of yoga movements. Researchers added two yoga movements, namely *julus* two and *sujud* 2. So that the number of yoga movements developed was eight, comprising two *qiyam* movements, two bowing movements, two *julus* movements, and 2*sujud* movements, (b) include warm-up and cool-down images in Yoga SOPs. Researchers took pictures of heating and cooling movements for children, then included them in the Yoga SOP that would be used, (c) explaining breathing techniques into Yoga SOPs.

3.6. Limited Trial

The first trial is limited. In a limited trial, the researchers included five children aged 5-6 in group B. At the first meeting, the researchers explained the contents of the Yoga SOPs, related to the timing of Yoga and breathing techniques, and how to do Yoga based on prayer movements to the test subjects. After explaining SOP Yoga, the researcher applied Yoga based on prayer movements with the test subjects. In the second, third, and fourth trials, with the same test subjects, researchers did Yoga based on prayer movements according to Yoga SOPs. The findings of this limited study are presented in the table 1.

Table 1. Limited Trial Result

No	Subjects	Indicators					Description
		regulate behavior	set the stimulus	consider things and events	evaluate events and things positively	Determine the action	
1.	AR	3	2	2	3	3	Good
2.	AY	2	2	2	2	3	Moderate
3.	AZ	1	1	2	2	3	Moderate
4.	EY	2	1	2	2	2	Moderate
5.	JU	3	3	2	2	3	Good

Based on table 1 above, in the first indicator, namely the ability to regulate behavior, there are two children with good abilities, two with fairly good abilities, and one with poor abilities. In the second indicator, the ability to regulate stimuli, there is one child with good ability, two with fairly good ability, and two with poor ability.

Then, in the third indicator, the ability to consider things and events with consideration, five children with poor abilities. In the fourth indicator, namely the ability to assess events and things positively, one child with a good ability, and four with a pretty good ability. Moreover, in the fifth indicator, which is about the ability to determine actions, it was found that four children have good abilities, and one child has pretty good abilities. Overall, there are two children with good self-control abilities and three children with moderately good self-control abilities.



Figure 2. Limited Trial

3.7. Field Trial

After conducting a limited trial, the researcher did not revise because he felt the product was good enough to continue. In the second field trial, there were 23 children as test subjects at a RA in Cipondoh. First, the researcher explained the time of Yoga, then taught breathing techniques and techniques for Yoga based on prayer movements to the test subjects.

In the results, researchers found several indicators of children's ability to control themselves very well: regulating behavior and determining actions. The child's self-control ability is also obtained from the indicators of the ability to regulate stimuli, consider things and events, and evaluate events and things positively.

Slightly different from the previous trial, the researcher considered that there was an advantage in children's self-control in the field trial subjects from the limited trial subjects.



Figure 3. Field Trial

3.8. Expert Validation

Product feasibility analysis from the results of expert assessment. Expert judgment by a sports lecturer at one of the universities in Jakarta. The results of the assessment of yoga experts are presented in the following table 2.

Based on table 2, the assessment of yoga experts using a Likert scale, it can be seen that the first indicator related to the movements got a 95% feasibility percentage, the serving time in the presentation got a 75% feasibility percentage, and the movement implementation's indicator stage there was a 100% feasibility percentage. The total assessment score is 37 of the ten indicators assessed. Moreover, the average rating is 3.7 with a 90% feasibility percentage, so product development such as Yoga based on prayer movements is categorized as very worth-it to apply to early childhood.

3.9. Analysis Product

The analysis of the product's success was obtained from the researchers' observations during the study on five children of group B with a range of 5-6 years of age. The results of the observation data are presented in the table 3. From the results of the successful test in table 3, the overall average percentage of 63%. The development of prayer movement-based Yoga can be used to train early childhood self-control abilities.

Table 2. Expert Judgement/Yoga Expert

No.	Aspect	Indicator	Score	Average/ aspect	percentage
1.	Movement	Variations of movements	4	3.8	95%
		the breadth of movement (use of limbs)	3		
		Movement difficulty level according to the ability of children aged 4-6 years	4		
		Yoga movements according to the child's ability	4		
2.	Serving Time	Overall duration compatibility	3	3	75%
		The appropriate duration of each movement	3		
3.	Movement implementation stage	Suitability of stages from one move to the next	4	4	100%
		Use of the warm-up stage before the core movement	4		
		Use of cooling stage after core movement	4		
Total Score			37	10.8	
Average Score			3.7	3.6	90%
Category			Very Worth-it		

Table 3. Observation Result

Subject	Score	Mean Score	Percentage
AR	51	3	
AY	40	2.35	
AZ	36	2.11	
EY	36	2.11	
JU	52	3.05	
Total	215		
Average	43	2.52	63 %
Category	Good		

3.10. Final Product

After analyzing the existing data, a final product was obtained as yoga movements based on prayer movements in training the self-control abilities of early childhood. The product revision has been carried out by researchers based on the assessment and input from the validator. The revision aims to produce a yoga movement-based product development that is more effective and varied than the initial product.

Based on the assessment results of yoga experts, Yoga based on prayer movements is included in the feasible criteria with a feasibility percentage of 90%. Moreover, from the trial results, Yoga based on prayer movements got a success percentage of 63% with good/successful criteria. So, it can be said that Yoga based on prayer movements can practice self-control skills in early childhood.

The following is a product study of the development of Yoga based on prayer movements in the final stages:

3.10.1. Qiyam Movement I (Stand Up)

In the qiyam, I move, the way to do it is to have the body in an upright position and the hands on the sides parallel to the shoulders. Slowly pull your hands up, and your feet stand on tiptoe, accompanied by inhaling through your nose. Then lower your hands to their original position, accompanied by exhaling from your mouth with a 'ha' sound (5x repetitions).



Figure 4. Qiyam Movement I (Stand Up)

3.10.2. Qiyam Movement II (Stand Up)

In the Qiyam II movement, the way to do it is to take a standing position with both feet in line with the shoulders. Rub both palms in front of the stomach, inhaling through the nose. Place the right hand on the chest and the left on the stomach—Exhale from the mouth, making a “hi” sound (5x repetitions).



Figure 5. Qiyam Movement II (Stand Up)

3.10.3. Rukuk Movement I (Bowling)

In the first bowing movement, the way to do it is by bending the body forward by pulling the hands forward and inhaling from the nose. Then pull the body to an upright position, and exhale from the mouth with a ‘hu’ sound (5x repetitions).

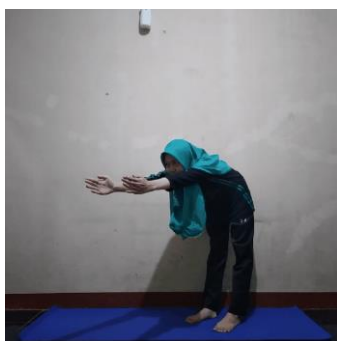


Figure 6. Rukuk Movement I (Bowling)

3.10.4. Rukuk Movement II (Bowling)

In the second bowing movement, the way to do it is that both palms touch the ankles, the body is bent down, slowly pull the palms up to the thighs, accompanied by breathing in from the nose. Then lower your palms to your ankles again, and exhale from your mouth with a ‘he’ sound (5x repetitions).



Figure 7. Rukuk Movement II (Bowling II)

3.10.5. Julus Movement I (Sit)

In the julus I movement, the way to do it is to position the legs folded back like a sitting position between two prostrations, the position of both hands clenched on the thighs, pull the hands up, inhale from the nose, lower both hands to the thighs and exhale from the mouth with a sound. 'ho.' (5x repetitions).



Figure 8. Julus Movement I (Sitting)

3.10.6. Julus Movement II (Sit)

In the julus II movement, the way to do it is the sitting position is still the same, place the hands in front of the knees, then pull the hands slowly to the right back and alternately pull to the left back accompanied by inhaling from the nose and exhale from the mouth with the sound 'ha.' (5x repetitions).



Figure 9. Julus Movement II (Sitting)

3.10.7. Sujud Movement I

In sujud I, the way to do it is the position of the feet is still the same as the julus movement, then lower the head until it touches the floor, pull the hands back, and the back of the hand sticks to the floor. Pull the body to a sitting position accompanied by inhaling through the nose, then return to the prostration position and exhale from the mouth with a 'hi' sound. (5x repetitions).

3.10.8. Sujud Movement II

In sujud II, the way to do it is to position your body like a prostration, with your hands clenched beside your head. Then pull it up in a half-standing position, both hands still clenched at the side of the head, accompanied by an inhaling from the nose, then return to the prostration position again and exhale from the mouth with a 'hu' sound. (5x repetitions)

3.10.9. Relaxation

In the relaxation stage, lie down on the floor, feet shoulder-width apart, hands by your sides, and palms facing up. Close your eyes and relax your muscles from head to toe. Once you feel relaxed, release negative energy and inject positive energy into your body. It can be done by giving positive affirmations, such as I am an intelligent child, study hard. I am a pious child. I am obedient to my parents. (+- 2 minutes), can be interspersed with inhaling from the nose and out from the mouth with a 'ha' sound.

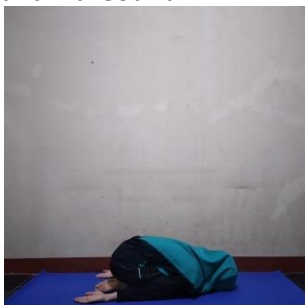


Figure 10. Sujud Movement I



Figure 11. Sujud Movement II



Figure 12. Relaxation

4. Discussion

Mindfulness-based programs are growing in popularity among school-age children, and there is increasing evidence to support their effectiveness in promoting the regulation of emotion, attention, and behavior among children and adolescents (Felver et al., 2016; Waters, 2016; Zenner et al., 2014). Although fewer, recent reviews suggest that mindfulness-based programs also hold promise for young children, with benefits found in self-regulation, socio-emotional competence, and physical development (Erwin & Robinson, 2016).

Early childhood is the optimal time for Yoga, defined as a set of practices that include physical exercises, postures, breathing techniques, meditation, and relaxation (Hagen & Nayar, 2014), representing one mindfulness-based technique that has been successfully adapted to be developed suitable for children (C. P. Cook-Cottone, 2017; Greenland, 2010; Roeser & Peck, 2009). In Yoga, movements are performed to strengthen, stretch and relax the body, including the nervous and emotional systems, while the breath is used to bring attention to the present moment and balance the body and mind (C. P. Cook-Cottone, 2015; Khalsa, 2004).

Movement and somatic experiences every day in early childhood education and exercises such as Yoga, which involve sensory-motor coordination, are thought to strengthen brain-body connections and the neurological underpinnings of self-regulation. In addition, these practices facilitate embodied self-regulation, a concept that Cook-Cottone describes in mindfulness and Yoga as a practical learning model (MY-SEL) illustrating how mindfulness and Yoga contribute to Student engagement in the classroom (C. P. Cook-Cottone, 2017). In particular, embodied self-regulation requires full awareness of our thoughts, feelings, and physical sensations and includes critical processes that underpin mind-body-behaviour relationships, such as the investigation of our inner experiences and choices of actions (C. P. Cook-Cottone, 2015). Therefore, Yoga is considered an important tool and educational strategy to promote socio-emotional learning (C. P. Cook-Cottone, 2017; Khalsa & Butzer, 2016).

Pratiwi explained that the application of Yoga for children is by providing examples of yoga movements or poses. Yoga movements or poses for children are asanas or basic movements close to the environment and children's daily lives. Yoga asana is a physical exercise that imitates the movement or poses of animals or objects around us, such as the cobra pose, bow pose, candle pose, rabbit pose, tree pose, and lotus flower pose, where the lotus flower pose will be used when meditating (Purniasih & Suyanta, 2019).

According to previous research, pranayama or Yoga niques breathing techniques calm the nervous system and help maintain blood pressure and stress response (Shetty et al., 2022), physical relaxation, awareness, and excitement (Rocha et al., 2012). In the past, meditation was

purely spiritual teaching for saints, prophets, mystics, and spiritual teachers. However, as the many benefits of meditation were discovered, it was no longer seen as a purely spiritual teaching. This science is then increasingly recognized as a tool to improve physical, mental, emotional, and spiritual health since it became mainstream in the 90s. Meditation is beneficial for reducing stress, providing peace and harmony, maintaining mental and emotional balance, providing more incredible energy and new vitality, healing the mind, body, and soul, and improving concentration, clarity, and creativity (Barr & Benson, 1984).

5. Conclusion

The product developed is a prayer movement-based yoga movement comprising nine core movements: Qiyam 1 and 2, Ruku 1 and 2, Julus 1 and 2, prostration 1 and 2, and relaxation. The results of the yoga movement-based feasibility trial were included in the worth-it criteria with a percentage of 90%. The trial's results on five children of group B TK got a success percentage of 63% with the criteria of success. So the development of Yoga based on prayer movements can train the self-control abilities of early childhood. Researchers recommend using prayer movement-based yoga in kindergartens to train children's self-control.

Declarations

Author contribution statement

Miratul Hayati the presented idea and data taker. Putri Salasati developed the theory of Yoga, self-control and early childhood education. All authors discussed the results and contributed to the final manuscript.

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Data availability statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declaration of interests statement

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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