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Results from the Thailand 2022 report card on physical activity for children and youth



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ABSTRACT

Background/objective: The effort to create physical activity (PA) opportunities for Thai youth, prior to 2020, was making good progress. However, the unexpected advent of the Covid-19 epidemic has posed significant challenges to maintain PA level of youth. The Thailand 2022 Report Card on Physical Activity for Children and Youth presents measurements of PA-related indicators based on the Global Matrix, with additional indicators that are relevant for childhood development.

Methods: Several data sources were employed to develop the indicators, namely: 1) The Thailand Report Card Survey 2021; 2) School health and facility data; 3) Student health indicators from the Ministry of Public Health; and 4) Relevant resources to support the development of the policy indicator.

Results: Overall, only 27% of Thai children and youth met the 60-min PA daily threshold (grade D). While behavioral indicators were mostly graded 'poor' (between C and F), the source of influence (i.e., family) indicators showed better grades (between A and C). One-third (33%) of the youngsters suffered from moderate-to-severe level of stress/anxiety (grade B). Overweight and sleep indicators received grades of A or A-, whereas bullying and student engagement received a grade of B. The performance on the physical literacy indicator was graded C+.

Conclusion: With the main message "Let's Move - Boost Happiness," the results from Thailand 2022 Report Card call for a collaborative effort involving multiple sectors to improve PA and happiness of children and youth. A more comprehensive PA promotion strategy is required to provide clear direction and guidance

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for schools, families, and communities in order to maintain gains and raise the overall level of youth PA in Thailand.

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1. Introduction

WHO recommends 60-min moderate-to-vigorous physical activity (MVPA) daily on average for school-aged children and adolescents to facilitate optimal growth and development.¹ Nevertheless, a substantial proportion of youth worldwide do not meet the recommended physical activity (PA) guideline. High level of physical inactivity (81%) were estimated in 11–17 years old globally.^{2,3} Reflecting the global trends, the prevalence of sufficient MVPA among Thai youth (age 6–17 years) plateaued at a low level during 2012–2019, ranging between 20% and 28%, and dropped significantly to 19% during the Covid-19 pandemic.^{4–6}

The Thai government has shown its commitment to improve the health and well-being of the nation's youth. Thailand's national campaign on PA was marked by the ratification of the Bangkok Declaration in 2016,⁷ and clarified in the 10th National Health Assembly in 2017. Following the Global Action Plan on Physical Activity recommended by WHO,⁸ and guided by Thailand's National Physical Activity Plan, health promotion strategies have called on all partners and community counterparts to jointly collaborate to improve youth PA levels. The country's commitment was illustrated by joining this global movement and submitting a "Report Card" on status and progress made since 2016. The Thailand Report Card (TRC) is the synthesis of a country's program and policies addressing PA for children and youth.⁹ It comprises 10 common PA indicators to allow countries to assess the status of, and trends in, PA behaviors. The harmonized indicators also allow objective comparisons between countries to facilitate interpretation and generate lessons learned from participating countries.

The objective of this article is to present the findings from the assessment of PA-related indicators of Thai youth based on the Global Matrix harmonized development process.⁹ Additional indicators relevant to child development (i.e., sleep, obesity risk, physical literacy, school engagement, bullying, anxiety, stress) were also examined. Several data sources were employed to inform and grade TRC indicators, namely: 1) The Thailand Report Card Survey 2021; 2) School health and facility data; 3) Student health indicators from the Ministry of Public Health; and 4) Other relevant resources to measure the policy indicator.

2. Methods

The Thailand Report Card 2022 (TRC2022) was developed and produced by the Thailand Physical Activity Knowledge Development Centre, Institute for Population and Social Research, Mahidol University, Thailand, with full support from the Thai Health Promotion Foundation. A total of 20 investigators were involved, including country's Report Card leaders, the central team members, and regional researchers. The investigators collaborated to compile and collect all the necessary data and information related to the 10 common and additional indicators and were also involved in the data analysis, the grading process, and the production of the report card.

TRC2022 included all 10 Global Matrix common indicators,⁹ with six additional variables relevant to the Thai context. TRC2022 grades were mostly informed by the data driven from

Thailand's Report Card Survey 2021 (TRCS2021), a nationally representative survey focused on collecting health-related information of Thai children and youth aged 5–17 years old. The survey applied multi-stage random sampling in selecting a total of 6078 youth from all five regions of Thailand, 10 provinces (out of 77), 20 urban/rural districts, and 121 schools of various size. To comply with the safety measures, data were collected by using an 'on-screen face-to-face' interview, where the inquiry was mediated by a screen medium (i.e., mobile phone, tablet, laptop, or computer) connected to the Internet.

Overall PA, active play, and sedentary behavior (SB) was assessed by using a 24-h activity diary of the Student Questionnaire from TRCS2021, in which the respondents were asked to recall their daily activities from the time they woke up until they went to bed, including the intensity of each activity. TRCS2021 also collected data on engagement in organized sports and PA, active transportation modes for going to places, and whether they received any support from their family or peers for PA. Respondents were also asked whether their home community had accessible PA facilities.

The data for school indicator were collected from on-screen or in-person face-to-face interview (depended on the local government policy) to 121 teachers who were recruited following the selection of 121 schools in TRCS2021 sample. The Teacher Questionnaire inquired the availability and quality of PA facilities, programs and policies in their school, including students' PA-related data.

Physical fitness was measured by the sit-and-reach (flexibility), and sit-up (strength) tests. These data were collected every semester by physical education (PE) teachers in collaboration with local primary health care personnel. A total of 6,681,189 Thai children aged 6–17 years old were tested during 2020–2021 (when the school were opened). We calculated weighted average physical fitness levels using two datasets and compared the results with Tomkinson's¹⁰ percentile norms. The average percentile across all age, sex and test groups was used to determine the overall physical fitness grade.

We assessed PA-related policies in Thailand by using the *Comprehensive Analysis of Policy on Physical Activity* (CAPP) framework.¹¹ This framework was developed in 2019 by Pogrmilovic et al.¹¹ as a comprehensive approach to PA policy, and comprised of 38 indicators to guide countries in examining to what extent the policies have been implemented and what is lacking.

Sleep, physical literacy, anxiety, student engagement, and bullying experience data were collected from TRCS2021. The sleep indicator was developed following the guideline from The National Sleep Foundation's (NSF's): 9–11 h for children aged 6–13 years, and 8–10 h for children aged 14–17 years.¹² We developed the PL indicator based on Physical Literacy Assessment for Youth (PLAY),¹³ and assessed PL through students' self-report across five domains: knowledge, movement competence, confidence/motivation, enjoyment in PA, and PA participation. Anxiety was measured subjectively by asking the students whether they experience any anxiety and what are the causes. We assessed the level of student's engagement by asking the students whether they were happy at school, got along well with friends, or if they ever felt uncomfortable, lonely or neglected at school. Bullying was measured from

subjective response on the questions whether the students have experienced any form of violence, scolding, insulting either intentionally or unintentionally that makes them feel unhappy, embarrassed, stressed, and worried that they don't want to go to school.

For obesity risk, we employed data from a total of 754,086 wt/height registry of Thai students from the Ministry of Public Health (MOPH) in 2021. The data were collected by schoolteachers and reported to MoPH every semester.

Upon completion of data collection and analysis, the country team met to evaluate the findings, and discussed the grading assignment for each indicator with the Steering Committee (advisory board). The quality of evidence of for all the indicators was considered to be 'strong,' considering that the TRCS2021 was a nationally representative sample survey, focused on health-related information of Thais aged 5–17 years. The school data also provided adequate information on the facilities, programs, policies and physical fitness of the students. The quality of evidence for the government policy indicator was also considered reliable and strong, as 384 relevant policies were identified, categorized, and systematically analyzed using the CAPPA framework.¹¹

3. Results

TRC2022 is the third Report Card on PA for Thai youth since Thailand joined the Global Matrix 2.0 in 2016. All Global Matrix common indicators were successfully assessed in Thailand, with six additional indicators that are relevant for youth development. The

cover story of TRC2022 "Let's Move – Boost Happiness" (Fig. 1) highlights the focus on the happiness of children and youth and the campaign mascot 'Enderphin,' is a literal adaptation of the hormone that is being released by the pituitary gland by engaging in PA. This hormone is believed to relieve stress and create a general feeling of happiness and well-being.¹⁴

The results of TRC2022 are presented in the following tables and figure. Table 1 presents the grades assigned to the 10 common indicators and the six additional indicators. Table 2 displays the percentage of Thai children and youth meeting the recommended behavioral guidelines classified by age and sex.

4. Discussion

The "Let's Move - Boost Happiness" tagline highlights the alarming level of stress and anxiety among Thai children and youth during the Covid-19 pandemic,¹⁵ and the importance of PA in reducing stress. Widyastari et al.¹⁵ found that 67% of Thai children and youth reported 'very mild' to 'mild' anxiety, whereas 33% suffered from 'severe' anxiety during Covid-19 pandemic. Acknowledging the role of multiple sectors in PA promotion, the TRC2022 calls for collective action to increase PA in order to improve youth happiness. The message targets the family with youth in their care, the school, the community, and those government agencies responsible for designing PA programs and opportunities for Thai youth.

The following section discusses the grades of TRC2022 with comparison to the previous rounds.

It should be noted however, although the three rounds of TRC employed the same benchmarks,⁹ data source and methods used to inform the same indicators over time were not identical. For overall PA, organized sport and PA, active transport, sedentary behavior and community environment indicators, TRC2016 and TRC2022 employed the data from Report Card Surveys to inform the grades. Unlike the other two rounds, TRC2018 used a trend analysis (demographic methods) by using TRC2016 data as the baseline estimates.



Fig. 1. Cover story Thailand 2022 Report Card on Physical Activity for Children and Youth.

Table 1
Grades assigned to indicators in the 2022 Thailand report card on physical activity for children and youth.

Indicators	Grades
<i>Behavioral</i>	
Overall Physical Activity	D
Organized Sports and Physical Activity	D+
Active Play	F
Active Transportation	C+
Sedentary Behavior	F
Physical Fitness	D-
<i>Source of influence</i>	
Family and Peers	A-
School	B-
Community and Environment	C-
Government	B
<i>Additional</i>	
Overweight/obesity risk	A
Sleep	A-
Physical literacy	C+
Student engagement	B
Anxiety and stress	B
Bullying	B

Note. The grade for each indicator is based on the percentage of children and youth meeting a defined benchmark: A+ is 94%–100%; A is 87%–93%; A-is 80%–86%; B+ is 74%–79%; B is 67%–73%; B- is 60%–66%; C+ is 54%–59%; C is 47%–53%; C- is 40%–46%; D+ is 34%–39%; D is 27%–33%; D-is 20%–26%; and F is <20%. INC is Incomplete data.

Table 2
Percentage of Thai children and youth meeting the Recommended AHKGA benchmarks by Age and Sex.

Indicators	All age groups and sex	All age groups by sex		Percentage by age group and sex							
		Male	Female	6–8		9–11		12–14		15–17	
				Male	Female	Male	Female	Male	Female	Male	Female
Overall PA	26.9	31.2	22.8	35.0	28.9	33.1	27.8	25.5	16.4	30.8	16.2
Organized sports and PA	37.3	38.1	36.6	35.4	39.1	40.8	40.6	35.9	32.4	40.8	32.8
Active play	19.1	22.4	15.8	29.6	24.3	26.4	21.1	14.3	8.8	15.9	6.8
Active transportation	58.1	59.1	57.2	57.7	51.6	65.6	63.2	58.5	58.2	47.6	53.2
Sedentary behavior	15.0	13.6	16.4	20.8	27.3	16.6	20.9	7.2	9.4	6.4	5.5
Physical fitness*)	24.7	23.9	25.6	n/a	n/a	21.7	21.7	26.7	29.2	23.3	25.8
Family and peers	82.3	83.3	81.4	91.6	88.3	86.0	88.0	78.3	76.4	72.2	69.4
Sleep	83.6	84.0	83.0	94.7	93.8	87.9	87.7	78.2	79.4	67.8	68.0
Physical literacy	54.1	55.1	53.2	64.7	62.4	54.9	60.4	47.5	44.3	53.5	42.6
Student engagement	66.8	68.2	65.5	72.1	70.9	69.7	69.0	65.4	60.8	63.3	59.9
Anxiety and stress	67.2	70.6	64.0	82.2	84.1	74.8	77.0	66.2	50.4	49.2	37.9
Bullying	67.7	67.9	67.5	65.8	66.6	64.1	59.4	69.7	69.2	76.5	78.8

Note: *) refers to corresponding percentile of normative value by Tomkinson.¹⁰

4.1. Overall PA

Overall, only 27% of Thai youth met the 60-min MVPA daily threshold (grade D). Although this unsatisfactory level was similar to previous rounds, the proportion of youth meeting the threshold in the TRC2022 was higher than in 2016 (23%, or grade D-) and 2018 (26%, grade D-).^{5,6,9} The findings of the study also indicate that, in general, the proportion of boys who met the recommended guidelines for PA was higher than girls (31 versus 23%, respectively). The proportion of boys who had sufficient PA was highest among those age 6–8 years and lowest among those age 12–14 years. For girls, the proportion who met the PA threshold declined with age and was highest among the youngest cohort (6–8 years) (Table 2). The low level of PA, despite the intensified government effort in PA promotion, suggests that the existing program and policies have not addressed the root cause of the problem. Prior to Covid-19 pandemic, insufficient PA of Thai youth was due to lack of PA opportunities throughout the day, both at school and in the home environment. With PE class being administered for only 40-min a week, and the long duration of classroom SB during the day, most youth did not meet the recommended PA guidelines.⁵ During the pandemic, government containment measures and closures of public facilities further limited PA opportunities of Thai youth.

4.2. Organized sports and PA

About one-third of Thai children and youth (37%) participated in organized sports, resulting in D+ grade. This grade was lower than in the previous rounds of the TRC, C in 2016 and C- in 2018.^{5,6,16} Similar to the pattern in 2016 and 2018, in this study, the proportion of boys who participated in organized sports and PA was higher than girls in most age groups, except for the youngest cohort (Table 2).

4.3. Active play

The low level of active play deserves particular attention since it remained lowest since 2016 (grade F). One in five Thai children and youth had an opportunity for outdoor PA for more than 2 h a day in 2016,¹⁶ and this proportion dropped to 9% in 2018,^{5,6} but then rebounded to 19% in 2021. Subjective measures from survey data were used to inform the active play grade in TRC2016 and TRC2022, whereas accelerometer (Feelfit) was used to objectively measure active play in TRC2018. In the present study, the proportion of girls involved in active play was lower (16%) compared to boys (22%). A trend of reduction of this indicator was observed as girls become

older, aged 12–14 (9%) and 15–17 (7%), respectively. These findings also suggest that active play for adolescents is sensitive to gender and culture. Adolescent girls are disadvantaged by the Thai cultural norm dictating that girls are supposed to be neat and calm, and are discouraged to engage in vigorous outdoor activities that may produce copious sweat and disheveled appearance.⁵

4.4. Active transportation

The active transportation indicator was graded C+ in 2022 since 58% of children and youth reported using active modes to travel around. This grade is lower than the previous two rounds (C in 2018 and B in 2016),^{5,6,16} most likely due to the restriction of movement during the pandemic. With the school closures, most Thai children and youth shifted from in-person to online or home-based learning and, thus, had reduced active transport opportunities. Compared to girls, the proportion of boys who had the opportunity to travel using active modes was higher, except those aged 15–17 years (Table 2).

4.5. Sedentary behavior (SB)

With the shift from in-person to online instruction, the majority of students engaged in higher screen time compared to the previous TRC rounds (non-pandemic period). This study found that only 15% of Thai youth met the recommended guideline of less than 2 h recreational screen time, and therefore, sedentary behavior indicator was graded F. This grade is lower than the previous two TRC rounds (D-in 2016 and 2018) when the proportion of youth who met the recommended level of SB ranged between 22% and 26%.^{5,6,16} In this study, sedentary behaviors were higher for girls compared to boys, except among those aged 15–17 years (Table 2).

4.6. Physical fitness

When employing the physical fitness data collected from schools, we found that only 25% (grade D-) of Thai children and youth in this study achieved the average percentile normative values on sit-and-reach and sit-up tests as suggested by Tomkinson.¹⁰ This was the first time physical fitness was graded for Thai youth, with only two competences being measured. Tomkinson normative values were applied to children aged 9–17 while TRC2022 samples comprised of primary and secondary students aged 6–17 years. With no corresponding value, children aged 6–8 years were excluded from the analysis.

4.7. Family and peers

While behavioral indicators reflected rather poor PA during the COVID-19 pandemic, the source-of-influence indicators showed better grades. With the school closures, students spent most of their time at home, and engaged more with their family and household members than usual. The majority of children and youth (82%) were physically active with their family members (e.g., parents, guardians). This indicator received the grade of A-, and is higher than the previous two rounds (B in 2016 and 2018).^{5,6,16} The proportion of boys who reported receiving tremendous support for being active from their family was slightly higher than for girls in all age groups, except among those age 9–11 years (Table 2).

4.8. School

Different source of data was also used to inform school indicator. TRC2016 collected school data from the Report Card Survey, whereas TRC2018 used the report from Office of Basic Education (OBEC) data as the main source to inform the grade. In this study, the 'school' indicator was driven from teachers' information on school facilities and policies prior to COVID-19 pandemic. We found that only 65% of schools had school policies for PA (e.g., daily PE class, daily PA, active recess, an "everyone plays" approach, bike racks at school, traffic calming on school property, outdoor time) or had a PE specialist on staff. The grade in 2022 (B-) is an improvement from 2016 (grade C),¹⁶ but slightly lower than 2018 (grade B).^{5,6}

4.9. Community and environment

The containment measures imposed by the Thai government during the pandemic, significantly reduced the opportunity of Thai children and youth to utilize PA facilities and programs in their community and vicinity. Nevertheless, 41% of youth reported that their home community had infrastructure (e.g., playground, public park) for promoting PA. The grade in 2022 (C-) was lower than in 2016 (grade C)¹⁶ and 2018 (grade B-),^{5,6} pointing to the urgent need to revitalize community facilities for PA in the post-Covid era.

4.10. Government

Using the CAPP framework,¹⁷ this study found that 70% of the existing policies in PA promotion in Thailand were showing good progress (grade B). More than 300 PA-related policies in Thailand have been implemented to promote PA for children and youth. We matched the policy domains with the Global Action Plan on Physical Activity (GAPPA)⁸ and ISPAH's 8-investments,¹⁸ and scored each policy based on the following: (1) Stage of implementation; (2) Type of policy; and (3) Policy level. We analyzed the outcomes of policy across the following dimensions: (1) Policy and commitment; (2) Influences and environment; and (3) Behavior (i.e., percent of sufficient MVPA of the target population). The total scores were then converted into percentages to align with the Global Matrix indicator. A grade was assigned after a consensus was reached with the Steering Committee. Although this grade was slightly lower than 2018 (B+),^{5,6} the quality of evidence in 2022 is stronger since it is based on a greater number of policies and a more structured methodology to grade this indicator (i.e., the CAPP tool).

4.11. Overweight/obesity risk

A large proportion of children (89%) were categorized as 'normal' weight (grade A). The data for the obesity risk indicator

(height/weight) were obtained from primary and secondary school students' (age 5–17 years) school health registry in 2021. Unfortunately, no detailed data (classified by age or sex) were available for further analysis.

4.12. Sleep

The sleep indicator was graded A-since the vast majority (84%) of Thai children and youth had adequate sleep, as recommended by the National Sleep Foundation (9–11 h per night for children age 6–13 years, and 8–10 h for youth age 14–17 years).¹² Although most Thai youth reported adequate sleep duration during the COVID-19 pandemic, fewer older youth (68% of boys and 68% of girls) aged 15–17 years met the guideline compared to younger youth (Table 2).

4.13. Physical literacy

Just over half (54%, grade C+) the sample of children and youth had a 'good' level of physical literacy (PL). This indicator was added to TRC2022 considering its importance for childhood health and development.¹⁹ In this study, boys showed higher PL than girls. The proportion of boys with 'good' PL was higher than girls in most age cohorts, except for those age 9–11 years (Table 2).

4.14. Student engagement

Two-thirds (67%, grade B) of youth had a 'good' level of engagement. We considered this indicator to be important for Thai children and youth because physical activity affects academic performance and well-being at school, and student/school engagement is often reported as the mediating factor.²⁰ Students who are physically active are more likely to have better engagement with their lessons, schools and peers, and those with better engagement are more likely to have better academic performance and overall well-being at school.^{21–23} Our analysis showed that boys have a higher level of engagement than girls in all age groups (Table 2).

4.15. Anxiety and stress

Two-thirds (67%, grade B) of youth reported 'very mild' to 'mild' anxiety, whereas the other third experienced 'severe' stress/anxiety (grade B). This indicator was added to the analysis given its high relevance to youth mental health and well-being, particularly during the pandemic. Studies around the world have documented an alarming level of stress and anxiety among youth during the pandemic, particularly with the closure of schools.^{15,24–30} In this study, we found that older youth were more vulnerable to stress compared to younger youth. The percentage who suffered from 'mild' or 'very mild' stress/anxiety was highest among the youngest cohort (age 6–8 years) whereas older youth suffered from 'severe' stress/anxiety (Table 2).

4.16. Bullying

Aside from stress and anxiety, bullying experience is also an important indicator given its increased prevalence among school-age youth. Previous studies found that bullying victims are less likely to be happy at school.^{31–33} This study found a distressing level of bullying among Thai primary and secondary school students, where 68% (grade B) had experienced violence, scolding, and/or insults (either intentionally or unintentionally) that made them feel unhappy, embarrassed, and/or stressed enough to reduce their motivation to attend school entirely. Although both sexes had similar violence experiences (68% of boys and girls), more girls aged

6–8 and 15–17 years experienced bullying compared to boys (Table 2).

5. Strengths and limitations

As the third edition of this study, TRC2022 is very beneficial as a policy advocacy tool for PA promotion for children and youth. The strength of TRC2022 is, first and foremost, in its strong country team (Steering Committee, country leaders, and multi-disciplinary investigators), which has a high commitment to provide the best estimates for the indicators and ensure a sound knowledge translation from the results. Secondly, the grade assignment for each indicator involved a systematic analysis and discussion between Steering Committee, country leaders and research investigators, ensuring that the final grade is plausible and accurate. Third, the quality of evidence for all indicators is considered 'strong,' mostly since the data are derived from a nationally representative sample survey, or other national reliable resources. However, there should be caution in interpreting the results of TRC2022, firstly, since measurement of the indicators were applied during the COVID-19 pandemic situation and do not necessarily reflect the normal situation of Thai children and youth. Secondly, most of the data used subjective measures from self- or proxy-reported interview/questionnaires that were validated its internal consistency (i.e., test-and-retest), but without comparison to objective measures. Thirdly, differences in methodology and sources of data from three rounds of Thailand Report Card also required a careful interpretation in their comparison.

6. Conclusions

The Covid-19 pandemic has had an adverse effect on the daily life of school-age youth in Thailand. Overall, only 27% of Thais aged 5–17 years met the 60-min daily MVPA threshold, and 33% reported 'severe' stress/anxiety during the pandemic. While grades for behavioral indicators were generally unsatisfactory, the grades for the source of influence for PA had improved over time. Given the restriction of movement and prevention of crowding to contain Covid, schools throughout Thailand were closed for extended durations, and students spent most of their "class time" at home. In the absence of formal schooling, the family/household members played a significant role in regulating their child's daily routine, including PA.

With the main message "*Let's Move - Boost Happiness*" the results from Thailand 2022 Report Card point to the need for collaborative action involving multiple sectors to improve PA and happiness of children and youth. A comprehensive PA promotion strategy is required to provide clear direction and guidance for schools, families, and communities. Schools should enhance PA promotion for emotional benefit by applying the "*whole-of-school*" approach, and engaging stakeholders. Schools should also provide safer and more affordable access to PA facilities, and more space to enable students to be more active throughout the day. The local municipalities and communities should increase investment in creating a safe, youth-friendly environment to support PA, including quality walking and cycling networks, public open space access, playgrounds, and community recreation facilities/equipment. Collective actions from parents, teachers, schools and community should be integrated to create more opportunities for PA at home and at school in order to improve youth happiness and well-being.

Author statement

All authors contributed to the development of the manuscript.

DAW, PK, PS, NR, and WI conceptualized the study; PK, SR, NW, PC, WT, PP, KP, MM, PA, PM, KC, CY and WM responsible for acquisition of data; DAW, PK, AA and NN performed formal data analysis and interpreted the data; DAW and PK drafted the manuscript; PS, WT, and PP revised the draft manuscript critically; and DAW and PK finalized the manuscript.

We confirm that all authors have read and approved the final version of the manuscript and agree with the order of presentation of the authors.

We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere. We also confirm that the Thailand Report Card Survey was undertaken in compliance with the current laws of the country.

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Declaration of competing interest

A conflict of interest occurs when an individual's objectivity is potentially compromised by a desire for financial gain, prominence, professional advancement or a successful outcome. *JESF* Editors strive to ensure that what is published in the Journal is as balanced, objective and evidence-based as possible. Since it can be difficult to distinguish between an actual conflict of interest and a perceived conflict of interest, the Journal requires authors to disclose all and any potential conflicts of interest.

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