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The National Physical Activity Plan Early Childhood Education Strategy: State Policy Surveillance

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Abstract

The importance of establishing national surveillance systems to monitor physical activity promotion is well recognized. This article outlines the methodological process undertaken to develop an evaluation rubric for assessing state licensing regulations alignment with the National Physical Activity Plan Education Sector Early Childhood Education (ECE) strategy. This tool offers a cost-effective mechanism for ongoing surveillance of ECE physical activity policies, with the potential to inform modifications that promote uniform standards and establish consistent, high-quality opportunities for the nation's youngest children.

Keywords: early childhood education; national physical activity plan; physical activity; policy

Introduction

The National Physical Activity Plan (NPAP) is an initiative designed to help Americans meet the Physical Activity Guidelines by driving policy, systems, and environmental change. Rooted in the social-ecological model, NPAP offers a strategic roadmap for increasing physical activity at national, state, and local levels across ten societal sectors covering the lifespan.[1] The plan is structured around broad, evidence-informed strategies, tactics, and measurable objectives to be assessed in 2025.[2]

Recognizing that habits are formed early in life and can influence health in adulthood, the NPAP Education Sector focuses on strategies for providing our nation's youth with high-quality opportunities for physical activity from birth to adulthood. Over half of U.S. children under the age of five are enrolled in Early Childhood Education (ECE) programs, with many spending over 30 hours each week therein.[3] As a result, children can potentially obtain more than half of the recommended 120 minutes of daily physical activity during their time in ECE, assuming an average daily attendance of 6 hours or more. Given this, the role of ECE policy, systems, and environmental changes in shaping physical activity behaviors becomes critical, a concept well established in the social-ecological model and supported by research. Evidence suggests that implementing multilevel changes within ECE can lead to positive physical activity outcomes.[4–6] The tactics and objectives outlined in the NPAP ECE strategy provide states with recommended actions to enact policy, system, and environmental changes that enhance physical activity opportunities in ECE. However, there is a notable lack of comprehensive data assessing how effectively states align ECE regulations with NPAP objectives.[7] To survey the current state of physical activity in ECE at the national level, it is important to first review the licensing regulations of each state, as these serve as indicators of the minimum operational guidelines for programs within the state.

This article seeks to address two key objectives: first, to acknowledge NPAP Education Sector's focus on ECE and

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child care policies, and second, to provide an overview of the development of a policy surveillance tool for assessing state-level ECE licensing alignment with NPAP's objectives. Results may inform the ongoing surveillance of physical activity regulations nationally.

Methods

This methodological article describes the process undertaken to develop an evaluation rubric comparing state-level physical activity licensing regulations to NPAP Education Sector's ECE strategy. This study was reviewed and classified as nonhuman subjects research by the University of North Carolina at Chapel Hill's Institutional Review Board (IRB # 24-2175).

NPAP ECE Strategy

Four tactics are proposed in NPAP for states to assist ECE programs in meeting the strategy: (1) Encourage ECE programs to adopt standards that ensure young children are afforded a minimum of 30 (half-day programs) to 60 minutes (full-day programs) of physical activity daily; (2) Provide professional development at multiple levels to ensure effective implementation and assessment of physical activity standards; (3) Compile and disseminate effective physical activity implementation practices; and (4) Develop natural outdoor education models integrating physical activity and learning. Within each tactic, there are detailed objectives for state-level organizations (see Table 1). Examples include creating a training registry, providing one professional development opportunity focused on physical education each year, and partnering with physical activity coalitions or other experts to develop appropriate outdoor learning environments.

State Licensing Regulations

State ECE licensing regulations are widely recognized for their potential to drive large-scale adoption of health-promoting policies as they provide universal, mandatory benchmarks that programs must meet to operate and are monitored for compliance.[8,9] While many states offer additional guidance through early learning standards and quality rating and improvement systems, the breadth of standards, their implementation, and whether they are mandated differ significantly across states.[10] To establish a baseline of current state mandates on physical activity in ECE, state licensing regulations were chosen for assessing NPAP alignment. Licensing data was obtained through the Department of Health and Human Services Child Care Technical Assistance Network National Database of Child Care Licensing Regulations.[11] This database provides a repository of state and territory licensing regulation documents. For the development of the NPAP ECE scoring rubric, only the most recent licensing regulations for ECE centers were reviewed.

Policy Evaluation Rubric

A scoring rubric was developed to systematically evaluate the inclusion of physical activity standards aligning with NPAP ECE strategy, tactics, and objectives in ECE center licensing regulations in each state. Rubric criteria were established following a review of NPAP ECE documentation and a random sample of state ECE licensing regulations for comparison in content categorization and structure. The rubric was developed through an iterative process. The lead author, who has experience leading policy reviews, drafted rubric questions aligning with each NPAP ECE tactic and objective (when applicable). Two trained research assistants and the lead author independently reviewed the licensing regulations of two randomly selected states, completing the draft rubric and noting any challenges encountered in the process. Research assistants were instructed to use a combination of keyword searches and full text reviews of sections aligning with NPAP constructs. Following a review of discrepancies in codes and a discussion of the review procedures, modifications were made to the rubric. Some questions were modified to better assess the thoroughness of policy language (e.g., vague versus explicit mention of outdoor physical activity requirements), breadth of terminology (e.g., use of play and movement to mean physical activity), or capture regulatory infrastructures that lack focus on physical activity promotion but could support implementation of NPAP ECE objectives (e.g., states use of professional development registries for required safety trainings). The three reviewers completed the process once more, recoding originally assigned states and two new states using the updated rubric, followed by a discussion and reconciliation of discrepancies.

Results

The scoring rubric was divided into three physical activity constructs: (1) opportunity and engagement; (2) professional development; and (3) evidence-based resources, and it includes 20 items related to NPAP ECE tactics and objectives. Construct codes, policy evaluation questions, and their corresponding NPAP tactic and objective are provided in Figure 1. During the rubric development phase, three reviewers demonstrated an 81% agreement in their scores across the four states, indicating high interrater reliability. Currently, the rubric is under review by physical activity experts to ensure it accurately reflects the priorities outlined in NPAP. Once content validity is established, trained reviewers will complete evaluation of each state's licensing regulation for alignment with the NPAP ECE strategy.

Discussion

The NPAP education sector offers evidence-informed guidance for policy, system, and environmental changes to promote physical activity and healthy lifestyles. Despite

Table 1. National Physical Activity Plan Early Childhood Education Strategy, Tactics, and Objectives

Strategy: States should adopt evidence-based standards for childcare and ECE[a] programs to ensure children aged zero to five years are appropriately physically active throughout their time in such programs.

Tactic		2025 objective	
#	Text	#	Text
1	Encourage ECE programs to adopt standards that ensure young children are appropriately physically active—at least 60 minutes of health-enhancing physical activity in full-day and at least 30 minutes in half-day programs.	1	National panel of experts and state/national agencies develop model physical activity quality standards for ECE settings.
		2	National/state/local agencies develop and disseminate childcare standards for physical activity experiences in all ECE settings.
		3	≥50% of U.S. states—identify explicit standards for time per day for physical activity that children should receive while in ECE.
2	Provide professional development at the state, district/ organization, and center/school levels to ensure effective implementation and assessment of physical activity standards specific to ECE.	1	All states provide annual access to ≥1 professional development opportunity to guide and educate ECE providers on strategies how to support children's physical activity.
		2	All states will create a directory of and provide continuous professional development opportunities to staff in ECE.
		3	All states will create the infrastructure to train ECE personnel to enable them to develop and assess organizational physical activity policies and practices.
		4	≥25% of states integrate content for the promotion of physical activity in ECE into the training of early education specialists at community college and universities.
3	Compile and disseminate best practices exemplifying effective implementation of physical activity standards in ECE.	1	All states provide examples of comprehensive, evidence-based practices associated with creating high quality physical activity environments (policies, practices, and built environments) in ECE.
4	Develop outdoor education models integrating physical activity, nature, and learning in ECE.	1	≥ 50% of US states—include explicit standards requiring children to have daily outdoor time during ECE, weather permitting.
		2	National childcare organizations, physical activity coalitions, and experts in the Community Recreation, Fitness and Parks—identify a set of evidence-based design principles for creating age- and developmentally appropriate ECE outdoor learning environments supportive of active and educational play.

[a]ECE, early childhood education.

some surveillance data, there is limited state-level information on physical activity policies, which the NPAP ECE strategy aims to address. This article outlines the development of a surveillance mechanism to assess state ECE licensing policies' alignment with NPAP recommendations. The NPAP Education Sector's 10 state-level ECE objectives fall into three measurement constructs (opportunity, professional development, and evidence-base). Combined, they provide valuable insight into the current state of physical activity regulations in ECE nationally. The proposed evaluation rubric introduced in this study is an essential tool in advancing national-level surveillance and informing NPAP's efforts at the ECE level.

The focus on utilizing policies to promote physical activity opportunities in ECE is not unique to the U.S. The World Health Organization Global Action plan also advocates for multi-level policies that target physical activity.[12] A recent scoping review indicated that only 59% of ECE programs worldwide had policies on total daily physical activity, and 50% included a need for collaborations with government-level bodies to support such policies. The review also noted a significant variation in terms of physical activity recommendations, which only complicates assessment efforts.[13] Similarly, Christian et al., (2020) performed an analysis of ECE policies in Australia, indicating an agreement regarding the importance of physical activity policies, the need for them to be evidence-based, and aligned with guidelines. In addition, others indicated the need for clear, concise, and easy-to-implement policies that are also combined with local or state-level support.[13,14] The variation in policies presents challenges for evaluating and improving physical activity opportunities. The tool discussed in this article represents a significant step toward developing a comprehensive surveillance system for

Code	Question	Tactic. Objective
OE1	Does the state's ECE licensing include PA/PE requirements for centers? *Search terms can include physical activity, motor, movement, fitness, tummy time. Do not include "Play" or "Free Play" as physical activity unless it specifies it includes physical activity, fitness, or motor skill activities. If guidelines are ONLY about physical activity/play equipment or space, and not the offering/delivery of physical activity, education, fitness, motor-skill, etc. – do NOT count.*	1.3
OE2	What age range are the PA/PE requirements for? *States may use different age ranges to identify infant, toddlers, and preschoolers. If no age is provided classify as follows: Infant (0-1yr), Toddler (1-3yr), and Preschooler (3-5yr)*	1.3
OE3	Does the state's ECE licensing include separate PA/PE standards for full and half/part-day centers?	1.3
OE4	Does the sates PA/PE licensing standards specify the amount of time per day for physical activity?	1.3
OE5	How do the PA/PE standards for amount of time per day for physical activity compared to those is NPAP Tactic 1? *If the state licensing standard provides the weekly amount of time for physical activity, divide by 5 for the daily amount. For example, a standard of 5 hours (or 300 minutes) of PA a week, this would be 1 hour (60 minutes) of daily PA (300/5 = 60)*	1.3
OE6	Does the state's ECE licensing include outdoor play or PA/PE requirements for centers?	4.1
OE7	For which age groups are the outdoor play requirements applicable? *States may use different age ranges to identify infant, toddlers, and preschoolers. If no age is provided you can classify as follows: Infant (0-1yr), Toddler (1-3yr), and Preschooler (3-5yr)*	4.1
OE8	Does the state's ECE licensing include separate outdoor play standards for full and half-day centers?	4.1
OE9	Does the state's ECE licensing specify the amount of time per day for outdoor play?	4.1
OE10	Does the state's licensing include requirements for the physical space and/or equipment for indoor PA/PE? *Only code if the requirements for the space and/or equipment are specific to promote physical activity, fitness, movement, motor skills, sports. If you are unsure if the guideline is promoting physical activity, review their definitions of activity and play.*	3.1
OE11	Does the state's licensing include requirements for the physical space and/or equipment for outdoor PA/PE? *Only code if the requirements for the space and/or equipment are specific to promote physical activity, fitness, movement, motor skills, sports. If you are unsure if the guideline is promoting physical activity, review their definitions of activity and play.*	4.2
PD1	Does the state's ECE licensing include any training or professional development requirements for ECE educators in the states? *Educators can be ECE owners, administrators, teachers, or staff. When scoring, you are looking for any training or professional development standard. It does not have to be PA specific.*	2.1
PD2	Does the state's ECE licensing include any training or professional development requirements specific to PA for ECE educators? *Educators can be ECE owners, administrators, teachers, or staff.*	2.1
PD3	Do the state's PA professional development standards specify the number of PA training or professional development opportunities required annually?	2.1
PD4	How many PA training or professional development opportunities are required annually?	2.1
PD5	Do the state's licensing standards mention the existence/use of a state training or professional development system? *This may be referred to as a training/professional development hub, registry, directory, system, platform or website. Does not have to be specific to PA/PE.*	2.2
PD6	Does the states licensing standards require PA/PE for students attending ECE professional programs in community college and universities?	2.4
EB1	Does the state's ECE licensing recommend the use of evidence-based PA/PE strategies, resources, and/or programs? *Terms to indicate evidence-based included: research backed, scientific evidence, scientifically proven.*	3.1
EB2	Does the state's ECE licensing recommend the use of evidence-based outdoor play/education/environment strategies, resources, and/or programs? *Terms to indicate evidence-based included: research backed, scientific evidence, scientifically proven.*	4.2
EB3	How are the state's ECE licensing evidence-based PA/PE, outdoor play recommendations provided? A. Strategies are listed directly in the licensing requirements B. Written summaries and/or references to evidence-based resources/programs are provided C. Links to evidence-based resources/programs are provided	3.1 & 4.2

Figure 1. State Policy Rubric for Evaluating National Physical Activity Plan Tactics and Objectives. OE, opportunity and environment; ECE, early childhood education; PA, physical activity; PE, physical education; NPAP, National Physical Activity Plan; PD, professional development; EB, evidence-based.

monitoring the scope, effectiveness, and evolution of physical activity policies over time. In addition, it offers potential for broader applications by evaluating national and state-level policies across various contexts while requiring fewer resources than traditional observational measures. Policy assessment serves as a critical starting point, as well-designed, effectively implemented, and well-regulated policies are more likely to drive widespread adoption and improvements in health behaviors.

Conclusions

To drive population-level health improvements, it is essential to establish policies and environments that promote physical activity across the lifespan—aligning with the 10 NPAP Sectors. This begins with the surveillance of state-level regulations that shape physical activity opportunities for the nation's youngest children. While the tool discussed in this article is specific to state ECE licensing alignment with the NPAP, it also serves as an example of a pragmatic, resource-efficient surveillance mechanism capable of monitoring policy improvements over time.

Impact Statement

The development and implementation of a standardized surveillance tool for evaluating state-level Early Childhood Education licensing alignment with the National Physical Activity Plans early childhood strategy will provide a method for monitoring policy level changes and their potential impact on the physical activity levels of children attending child care across the United States.

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Authors' Contributions

F.S.: Conceptualization (lead), Writing—Original Draft (lead), Writing—Review and Editing (equal); B.K.: Conceptualization (supporting), Writing—Review and Editing (equal); C.G.: Writing—Review and Editing (equal); S.S.: Writing—Review and Editing (equal); R.B.: Conceptualization (lead), Writing—Review and Editing (equal).

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