

Stakeholders' opinions on teaching movement education in primary schools: A cross-sectional study

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Abstract

Background: Movement Education (ME) in primary schools is crucial for promoting physical activity. However, there is a gap in stakeholders' understanding regarding its importance, the training required for teachers, and the time allocated for physical activity. The disparity in perceptions among generalist teachers, principals, sports tutors, and primary education students (PES) students may impact the effective implementation of ME in schools. This study aimed to investigate the differences in perception among various stakeholders regarding ME in primary schools. **Methods:** A cross-sectional approach was adopted, utilizing data from previous studies on the same topic. The sample consisted of 338 participants drawn from prior research, categorized into four distinct stakeholder groups: sports tutors, generalist teachers, PES, and headmasters. A set of common questions was administered to different stakeholder groups to compare their perceptions of the adequacy of time allocated for physical activity, the quality of teacher training, and the role of specialist teachers. Statistical analyses, including Chi-square tests and Cramer's V, were conducted to assess the significance of differences among the groups. **Results:** Significant differences in perceptions were found across the groups ($p < 0.05$). While generalist teachers (74.6%) and PES students (13.4%) considered the time allocated for physical activity to be adequate, a notable proportion of principals (11.7%) and sports tutors (20.4%) felt that the time was insufficient. Additionally, generalist teachers and PES students had a moderately positive view of their training adequacy, whereas sports tutors and principals were more critical, particularly regarding the sufficiency of training for teaching ME. Furthermore, most participants viewed the inclusion of specialist teachers in all primary school grades as an important improvement, suggesting that broader inclusion could enhance ME delivery. **Conclusions:** The study highlights a significant disparity in stakeholders' perceptions of ME, emphasizing the need for a comprehensive review of teacher training programs and the wider inclusion of specialist teachers. These findings suggest that strengthening collaboration among teachers, school leaders, and sports tutors is crucial for improving ME in primary schools. Further research should explore targeted interventions to address these gaps and enhance the overall quality of ME education in primary schools.

Key Words: teacher training, sports tutor, generalist teachers, specialist teachers, perceptions.

Introduction

Movement education (ME) is a key component for the harmonious development and promotion of active lifestyles in children. The Italian government's recent decision to assign specialized teachers with master's degrees in exercise science to teach ME in the fourth and fifth grades of elementary school marks an important turning point for physical education in the country. This legislative action not only aligns with the National Recovery and Resilience Plan (NRP) but also reflects a concrete commitment to respond to global challenges such as physical inactivity and the rise of noncommunicable diseases (Altavilla et al., 2022; Aliberti, 2023). Despite the well-documented benefits of physical activity for children's physical and cognitive development, ME has often been undervalued in primary education, both in terms of time allocation and instructional quality. Historically, ME instruction in Italy has relied on generalist teachers, many of whom lack formal training in physical education. As a result, disparities in the quality of ME instruction have emerged, impacting students' motor skills, engagement in physical activity, and overall well-being.

The role of sports tutors and external professionals has been introduced as a supplementary measure, yet their integration into school curricula has been inconsistent and dependent on individual school initiatives rather than systemic policies. Internationally, many countries have already recognized the value of entrusting physical education to trained professionals. In Finland and Sweden, for example, the quality of physical education is guaranteed by the presence of teachers with specific expertise, contributing to high standards of motor literacy and public health (Raiola, 2019; Raiola et al., 2022). Italy, before the reform, had a less structured model, where ME teaching was often done by generalist teachers without specific training in physical education. When

available, the intervention of sports tutors or ME graduates was a support, but this solution, lacking a systematic strategy, was not able to guarantee a uniform quality of educational provision.

Different studies have shown significant deficiencies in generalist teachers' skills in teaching ME (D'Isanto & D'Elia, 2021ab). Among the main limitations found are insufficient knowledge of basic motor skills; in fact, many teachers were not adequately trained to develop programs that promoted motor development in a progressive manner consistent with the different stages of children's growth (Esposito et al., 2024ab). Another limitation is the lack of inclusive teaching strategies, which made it difficult to adopt inclusive approaches needed to engage children with different abilities or special needs. Finally, there is the problem of classroom management: effective conduct of motor activities requires skills in managing group dynamics and preventing risky behaviors, aspects often neglected in generalist teacher training (D'Elia, 2019ab). These factors have led to the uneven quality of ME lessons, negatively impacting the ability to promote lasting interest in physical activity in children. In addition to teacher training limitations, there are discrepancies in how key stakeholders perceive the role and implementation of ME in schools. School administrators, sports tutors, and future educators (PES students) often hold differing opinions on the sufficiency of time allocated to physical education, the effectiveness of current training programs, and the necessity of specialist teachers across all primary school grades. Such disparities in perception can hinder the successful implementation of ME policies and limit the overall effectiveness of the reform.

The choice to introduce specialized teachers is bound to produce significant benefits. These professionals, thanks to their advanced training, can ensure an evidence-based pedagogical approach; in fact, the integration of theoretical and practical knowledge makes it possible to structure motor activities that promote not only physical development but also cognitive, emotional, and social development. In addition, they can promote public health, as investing in quality physical education contributes to the early prevention of physical inactivity, a known risk factor for cardiovascular disease, obesity, and diabetes. Finally, trained teachers can provide role models for healthy lifestyles by conveying clear and consistent messages about the importance of an active lifestyle, encouraging healthy behaviors beyond the school environment. The NRP stresses the importance of targeted interventions to improve the skills and well-being of future generations. The reform of ME teaching fits into this vision, representing a strategic investment in human capital. Through the professionalization of teaching staff, it aims to create a solid foundation for addressing systemic challenges such as educational inequality and the adoption of sedentary lifestyles. Recent research highlights a strong connection between physical activity in early childhood and enhanced cognitive performance, emotional regulation, social skills, and long-term physical health (WHO, 2020; D'Elia & D'Isanto, 2021; Raiola, 2025). These findings underscore the importance of delivering high-quality ME programs led by qualified professionals capable of addressing the diverse needs of primary school students.

The success of the reform depends on the active involvement of key stakeholders, including generalist teachers, specialist teachers, school principals, and students, each of whom offers valuable perspectives that shape the implementation and acceptance of the updated ME curriculum. For instance, studies on the Active School Kids (*Scuola Attiva Kids*), an initiative collaboration between the Ministry of Education, University, and Research (MIUR) and Sport & Health (Sport & Salute), have identified challenges related to the training and resources available for sports tutors (D'Elia et al., 2020). Similarly, research involving school principals has shown widespread support for the reform but has also highlighted concerns regarding resource allocation and the scalability of the initiative (D'Elia, 2020). Additionally, future educators, represented by students in PES programs, have reported feeling underprepared to teach a specialized subject like ME, emphasizing the need for targeted ME training within generalist teacher education (Raiola et al., 2023). These insights are critical for refining both policies and practices to ensure that the reform achieves its intended goals across all grades of primary education. By addressing the challenges identified and leveraging stakeholder perspectives, the reform can foster an environment where ME supports not only physical health but also cognitive, emotional, and social development. This study brings together diverse stakeholder perspectives to assess the current state of ME teaching in Italian primary schools. By synthesizing evidence from previous research, it aims to identify critical areas for improvement and alignment within ME practices. The findings provide valuable insights to support the potential expansion of specialized ME instruction to all primary school grades, ensuring a more consistent and effective approach to promoting physical activity and holistic child development.

Material & methods

Design and Participants

This study employed a cross-sectional design to collect and analyze the perceptions of various stakeholders regarding ME in primary schools. The primary objective was to explore how opinions on different aspects of ME varied among distinct groups of stakeholders, utilizing data from previously published experimental studies. By examining these perspectives, the study aimed to provide a comprehensive understanding of the current landscape of ME teaching and its impact on educational practices. The sample consisted of a total of 338 participants drawn from prior research, categorized into four distinct stakeholder groups:

- sports tutors (n = 48), that are individuals holding bachelor's or master's degrees in Exercise and Sports Sciences and then future specialist ME teachers. Their insights were critical in evaluating the effectiveness of ME training programs and the practical challenges faced in implementing ME curricula.
- school principals (n = 32), including principals responsible for the management, oversight, and educational leadership of primary schools. As key decision-makers and implementers of educational policies, their perspectives were essential in understanding the administrative and strategic implications of introducing specialist ME teachers.
- generalist teachers (n = 153), including primary school teachers who are responsible for teaching a broad range of subjects, including ME. These participants provided valuable feedback on the integration of ME within the general curriculum, their perceived competencies, and the support needed to effectively deliver ME lessons.
- PES students (n = 105), including university students who are training to become future generalist teachers in primary schools. Their perceptions were analyzed to assess their preparedness and confidence in teaching ME, as well as their views on the adequacy of their training in this specialized area.

The inclusion of diverse stakeholder groups allowed for a multi-faceted analysis of the current state of ME teaching in primary schools, identifying gaps, challenges, and areas for potential improvement. This comprehensive approach aimed to inform policy recommendations and enhance the effectiveness of ME instruction across different educational settings.

Procedure /Instruments

The first phase of the study involved a systematic collection of questionnaire responses from various previously published studies focused on ME in primary schools. This approach was aimed at enhancing the validity and relevance of the study by capturing a broad spectrum of stakeholder perceptions (Giardullo et al., 2025). To achieve this, a comprehensive review of existing questionnaires was conducted. The literature includes prior research that has demonstrated the validity of using such surveys to capture the nuanced perceptions of stakeholders regarding ME in educational settings. By identifying overlapping themes and questions across different studies, we ensured that the data collected would be both robust and reflective of the key issues surrounding ME implementation.

After careful analysis of the collected questionnaires, several common questions were identified that addressed critical aspects of ME in primary schools. These questions focused on evaluating stakeholders' perceptions regarding different items, as shown in Table 1.

Table 1. Common items among different studies

Item	Definition	Question	Possible answer
Adequacy of school time for me	Stakeholders were asked to assess whether the current time allocated to physical activity during the school day was sufficient to promote children's physical well-being.	"Do you think the time children spend on physical activity during the school day is...?"	Likert Scale (from 1 to 4)
Training of generalist teachers	This aimed to evaluate the perceived adequacy of generalist teachers' training to effectively teach ME in primary school.	Question: "Do you think the training of generalist teachers is adequate to teach ME in primary school?"	
Training of specialist teachers	To assess the perceived effectiveness of specialist teachers' training, stakeholders were questioned on whether these educators were adequately prepared to teach ME.	"Do you think the training of specialist teachers is adequate to teach ME?"	
Need for additional training courses	Stakeholders were asked to express their opinions on whether supplementary courses could enhance the competencies of generalist teachers in delivering ME.	"Do you think additional courses are sufficient to improve the training of generalist teachers?"	
Expansion of specialist teachers' role	This question explored stakeholders' views on the potential benefits of extending the presence of specialist ME teachers beyond the fourth and fifth grades to all primary school grades.	Do you think the presence of specialist teachers in all primary school grades is useful?"	

The selection of these common questions was based on their alignment with key issues identified in the literature concerning the implementation of ME in primary schools. By focusing on these areas, the study aimed to provide insights into stakeholders' perceptions of current ME practices, identify perceived gaps in teacher training, and explore support for policy changes that could enhance the effectiveness of ME instruction. The

consolidation of these questions facilitated a unified approach to data analysis, allowing for a more comprehensive comparison of stakeholder perspectives across different studies. This methodological strategy not only increased the reliability of the findings but also contributed to a deeper understanding of the factors influencing the successful integration of ME in primary school curricula.

Statistical analysis

Descriptive and inferential statistical methods were employed to analyze the collected data and compare perceptions across different stakeholder groups. To provide a clear summary of the participants' responses, descriptive statistics were used. The data were summarized in terms of frequencies (i.e., the number of responses for each category) and percentages, allowing for a straightforward comparison of opinions across the various stakeholder groups (sports tutors, school principals, generalist teachers, and PES students). To examine the differences in perceptions among the stakeholder groups and to explore potential associations between their responses and their group membership, the Chi-square test (χ^2) was utilized. The test was applied to determine if there were statistically significant differences in the perceptions of ME-related questions among the four groups of stakeholders. By analyzing the frequency distribution of responses, the Chi-square test helped identify whether the variations in opinions were merely due to chance or were significantly associated with the participants' stakeholder group. The significance level was set at $p < 0.05$. To further understand the strength of the relationships, Cramer's V was used as a post hoc measure of association. Cramer's V values range from 0 to 1, where values closer to 1 suggest a stronger association. The interpretation of Cramer's V was conducted as follows: 0.1 to 0.3: Weak association, 0.3 to 0.5: Moderate association, above 0.5: Strong association. All data analyses were conducted using IBM SPSS Statistics software (version 26.0).

Results

Chi-square analysis showed significant differences in perceptions among the groups of participants on all evaluated aspects, including the time dedicated to physical activity ($\chi^2=86.544$; $p<.000$, $V=.5$), the adequacy of generalist teacher training ($\chi^2=135.505$, $p<.000$, $V=.6$), the usefulness of additional courses for generalist teachers ($\chi^2=186.337$, $p<.000$, $V=.7$), the adequacy of specialist teacher training ($\chi^2=135.56$, $p<.000$, $V=.6$), and the usefulness of the presence of specialist teachers in primary school ($\chi^2=142.42$, $p<.000$, $V=.6$). A detailed description is shown in Table 1.

Table 1. Analysis of Differences in Perception Among Different Groups of Stakeholders from Various Studies

Contingency table			Principals	Generalists	PES students	Tutor	Value χ^2	Sig	V
Do you think the time children spend on physical activity during the school day is	Adequate/sufficient	F	9	106	19	8	86.54	.000	.5
		%	6,3%	74,6%	13,4%	5,6%			
	Inadequate/insufficient	F	23	47	86	40			
		%	11,7%	24,0%	43,9%	20,4%			
Do you think the training of generalist teachers is adequate to teach ME in primary school?	Adequate	F	0	51	54	3	135.51	.000	.6
		%	0,0%	47,2%	50,0%	2,8%			
	Very adequate	F	0	24	8	0			
		%	0,0%	75,0%	25,0%	0,0%			
	Not at all	F	6	34	2	33			
		%	8,0%	45,3%	2,7%	44,0%			
	Slightly	F	26	44	41	12			
		%	21,1%	35,8%	33,3%	9,8%			
Do you think additional courses are sufficient to improve the training of generalist teachers?	Adequate	F	0	56	62	0	186.33	.000	.7
		%	0,0%	47,5%	52,5%	0,0%			
	Very adequate	F	3	50	22	0			
		%	4,0%	66,7%	29,3%	0,0%			
	Not at all	F	24	13	2	24			
		%	38,1%	20,6%	3,2%	38,1%			
	Slightly	F	5	34	19	24			
		%	6,1%	41,5%	23,2%	29,3%			
Do you think the training of specialist teachers is adequate to teach ME?	Adequate	F	0	81	55	0	135.56	.000	.6
		%	0,0%	59,6%	40,4%	0,0%			
	Very adequate	F	32	41	50	48			
		%	18,7%	24,0%	29,2%	28,1%			
	Slightly	F	0	31	0	0			
		%	0,0%	100,0%	0,0%	0,0%			
Do you think the presence of specialist teachers in all primary school grades is useful?	Adequate	F	3	90	79	0	159.91	.000	.6
		%	1,7%	52,3%	45,9%	0,0%			
	Very adequate	F	29	36	26	48			
		%	20,9%	25,9%	18,7%	34,5%			
	Slightly	F	0	27	0	0			
		%	0,0%	100,0%	0,0%	0,0%			

Figure 1 illustrates the stakeholders' perceptions of whether the time allocated to physical activity during the school day is adequate. The data shows that principals (6.3%) and PES students (13.4%) generally view the physical activity time as adequate, while generalist teachers (74.6%) and sports tutors (20.4%) perceive it as inadequate. A strong significant difference ($\chi^2 = 86.54$, $p < 0.000$, $V = 0.5$) was found, with the strongest disagreement from generalist teachers.

Figure 1. Differences in perceptions on time spent on movement in children.

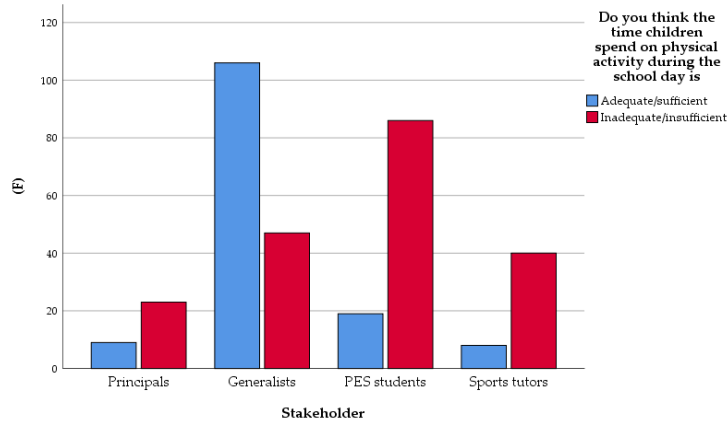


Figure 2 presents stakeholders' views on the adequacy of generalist teacher training for teaching ME in primary schools. It is clear that generalist teachers (47.2%) and PES students (50.0%) find the training adequate, while principals (0.0%) and sports tutors (2.8%) show minimal agreement. The analysis indicates a significant difference ($\chi^2 = 135.51, p < 0.000, V = 0.6$), reflecting differing levels of confidence in teacher preparedness.

Figure 2. Differences in perceptions on the appropriateness of generalist teacher training for teaching ME.

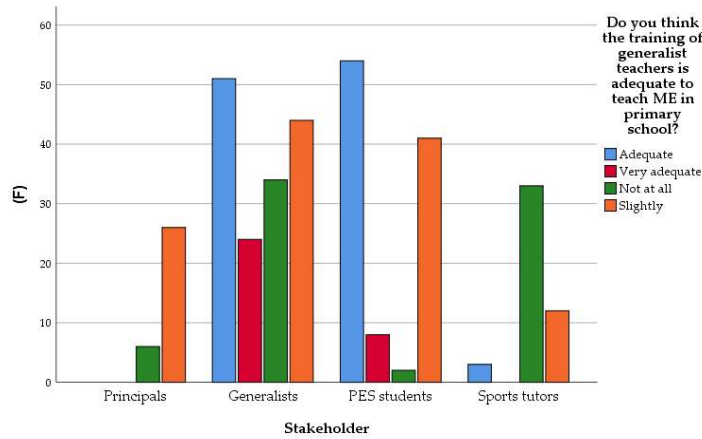


Figure 3 displays perceptions of the usefulness of additional training courses for generalist teachers. Generalist teachers (47.5%) and PES students (52.5%) mostly consider additional courses adequate, with sports tutors (38.1%) and principals (0.0%) showing less consensus on the need for these courses. A significant difference was found ($\chi^2 = 186.33, p < 0.000, V = 0.7$), with sports tutors and principals differing notably from other groups.

Figure 3. Differences in perceptions on the usefulness of additional training courses to improve generalist teacher training.

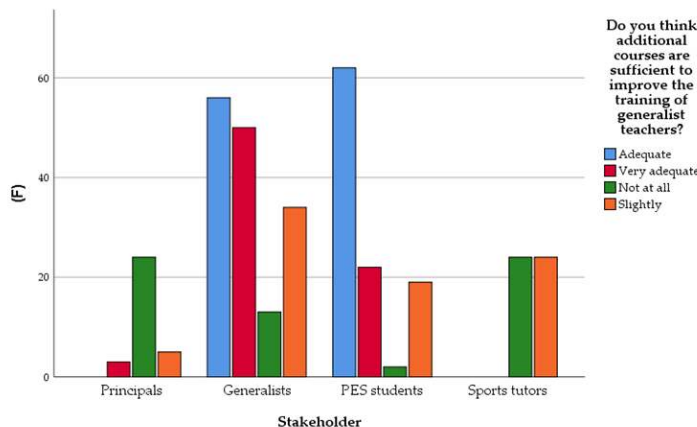


Figure 4 highlights the perceptions of stakeholders regarding the adequacy of specialist teacher training for teaching ME. Sports tutors (59.6%) and generalist teachers (40.4%) find the training to be adequate, while PES students (24.0%) show a more mixed view. The results indicate significant differences ($\chi^2 = 135.56$, $p < 0.000$, $V = 0.6$), with generalist teachers being the least confident in the training adequacy.

Figure 4. Differences in perceptions on the appropriateness of specialist teacher training to teach ME.

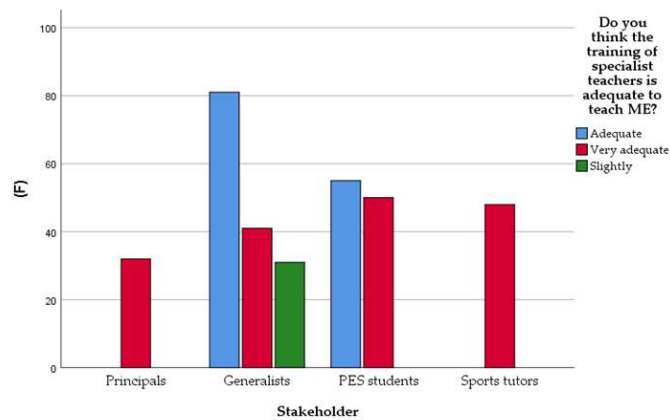
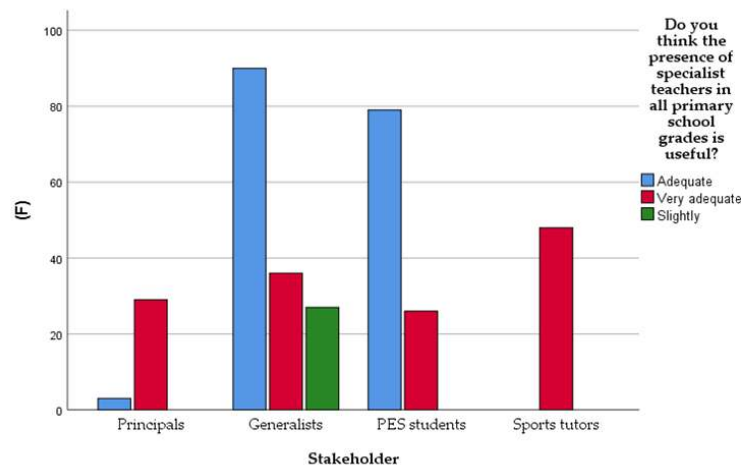


Figure 5 demonstrates how stakeholders perceive the usefulness of specialist teachers in all primary school grades. The majority of generalist teachers (52.3%) and PES students (45.9%) support the presence of specialist teachers, while principals (1.7%) show much lower agreement. Sports tutors (34.5%) strongly support the presence of specialist teachers. The analysis shows a significant difference ($\chi^2 = 159.91$, $p < 0.000$, $V = 0.6$), with principals and sports tutors differing significantly from the other groups.

Figure 5. Differences in perceptions on the usefulness of the specialist teacher's presence in all classes in primary schools.



Dicussion

The aim of this study was to investigate the differences in perception among various stakeholders regarding ME in primary schools. The groups involved in the study (sports tutors, principals, generalist teachers, and PES students) revealed significant differences in their views on various aspects of ME. Notably, the perceptions regarding the time children spend on physical activity during the school day differed markedly. As illustrated in Table 1 and Figure 1, generalist teachers (74.6%) and PES students (13.4%) largely considered the allocated time sufficient, whereas a considerable proportion of principals (11.7%) and sports tutors (20.4%) found it inadequate. This discrepancy highlights the need for targeted interventions at both the policy and daily teaching levels. The more critical view held by principals and sports tutors regarding the time allocated to physical activity, compared to generalist teachers and PES students, suggests that those responsible for overseeing school activities may perceive a broader lack of structure in the implementation of physical education. This divergence could be attributed to the lack of coordination between those directly involved in teaching and those overseeing the organization of educational activities (Esposito, 2024; D'Isanto et al., 2024). Significant differences also emerged concerning the adequacy of generalist teachers' training to teach ME ($p < .000$, $V = .6$). No group rated the training as "very" adequate (Figure 2). While generalist teachers and PES students viewed the training somewhat positively, with 47.2% and 50%, respectively, considering it "adequate," principals and sports tutors were much more critical, with 44% of sports tutors describing it as "not at all"

adequate. This finding underscores the urgent need to improve the training of generalist teachers, particularly by incorporating more practical and specialized elements into their programs (Raiola, 2011; Raiola et al., 2022). The high percentage of sports tutors who rated the training as inadequate is particularly noteworthy, as it suggests that the current courses fail to equip generalist teachers with the necessary skills to effectively teach ME. This indicates that teacher training should include more practical components, providing teachers with concrete skills for managing physical activities and sports within the school context. Introducing specialized modules or supervised internships could enhance teachers' confidence and improve the overall quality of ME in primary schools (D'Isanto et al., 2022ab). The perceptions regarding the sufficiency of additional courses to improve generalist teachers' training also varied significantly among the groups ($p < .000$, $V = .7$). A notable percentage of generalist teachers (47.5%) and PES students (52.5%) considered these courses "adequate," while sports tutors were more skeptical, with 38.1% considering them "not at all" sufficient (Figure 3). This difference suggests that the additional courses, which tend to focus more on theoretical aspects, may not provide teachers with the practical skills needed to effectively manage ME activities. To address this, these courses should be revised to include more practical workshops, expert-led seminars, and opportunities for supervised internships in schools. Such changes could promote the integration of ME with other subjects, making physical activity a cross-curricular element in the school curriculum (D'Isanto, 2023). Further, the perception of the adequacy of specialist teachers' training to teach ME was also diverse ($p < .000$, $V = .6$). While 59.6% of generalist teachers and 40.4% of PES students had a positive perception, only 18.7% of principals and 28.1% of sports tutors considered the training to be "very" adequate (Figure 4). This discrepancy in perception between those who teach and those who manage or oversee activities suggests that there may be room for improving communication and aligning expectations among these groups. Despite the positive perception from generalist teachers and PES students, a significant portion of principals and sports tutors believed that specialist teachers' training was not "very" adequate. This highlights the need for better alignment between the expectations of those who manage schools and the training provided to specialist teachers, ensuring all stakeholders are on the same page regarding the competencies required (Giardullo et al., 2024). Lastly, regarding the presence of specialist teachers across all primary school grades, there was clear consensus among the groups ($p < .000$, $V = .6$). Most generalist teachers (52.3%) and PES students (45.9%) considered this extension "adequate," while 32.9% of sports tutors strongly supported it (Figure 5). This result suggests that a broader inclusion of specialist teachers could be an effective strategy for improving ME in primary schools, supporting the notion that specialized instruction may enhance the quality and consistency of ME.

While the use of self-assessment questionnaires remains a limitation of the study, given the potential for subjective biases such as social desirability or personal interpretation of questions, the strength lies in the diversity of the sample. The involvement of various stakeholders, including sports tutors, principals, generalist teachers, and PES students, provided a broad and varied overview of perceptions regarding ME in primary schools. Overall, the study highlights significant differences in perceptions among various stakeholder groups, particularly regarding the need to improve the training of generalist teachers and enhance collaboration among teachers, principals, and sports tutors. There is a clear need for enriching generalist teachers' curricula with more practical and specialized elements and improving communication between all stakeholders to ensure that expectations for ME are aligned and effectively implemented (Plichta, 2019).

One of the strengths of this study lies in its use of a cross-sectional design, which, combined with data from previous research, provides a comprehensive and in-depth overview of the perceptions of different stakeholders regarding ME in primary schools. The inclusion of a diverse range of stakeholders (sports tutors, principals, generalist teachers, and PES students) ensures that the study captures a broad spectrum of perspectives, enabling a clear comparative analysis across different groups. This categorization of participants into distinct groups allows for a more nuanced understanding of the varying perceptions and attitudes towards ME. Another strength is the use of well-established, validated instruments for data collection, such as self-assessment questionnaires, alongside solid statistical analyses (Altavilla et al., 2024), including Chi-square tests and Cramer's V, which add rigor to the findings. These methods enhance the reliability of the results, ensuring that the significant differences observed in perceptions are statistically meaningful and robust. However, there are also some limitations to consider. The reliance on self-assessment questionnaires may introduce subjective biases, such as social desirability or individual interpretation of questions, which could affect the accuracy of the responses (D'Isanto et al., 2019). Additionally, cross-sectional design limits the ability to draw causal conclusions, as it captures perceptions at a single point in time rather than tracking changes over a longer period. Future research with longitudinal designs could provide further insights into how perceptions evolve and the impact of interventions over time. Despite these limitations, the study offers valuable insights into the differences in perceptions among key stakeholders, shedding light on the areas that need improvement and providing a solid foundation for future research and policy development in the field of ME. Some key implications include incorporating more practical, hands-on training in ME within generalist teacher preparation programs to ensure that future teachers acquire the necessary skills for effective ME. Additionally, providing structured and ongoing professional development opportunities for both generalist and specialist teachers will help keep them updated with best practices in ME instruction. Strengthening communication channels between generalist teachers, sports tutors, and principals is also crucial for aligning expectations and enhancing ME

implementation. Finally, promoting a broader inclusion of specialist teachers in primary schools, particularly in the early grades, could significantly improve the consistency and quality of ME delivery.

Conclusions

This study highlights significant differences in stakeholders' perceptions of ME in primary schools. Generalist teachers and PES students tend to underestimate the importance of specialized training, while school principals and sports tutors recognize its value. These discrepancies suggest the need to enhance generalist teacher training programs by incorporating more practical and specialized content to better equip them for teaching ME effectively. The findings also support the idea that increasing the presence of specialist teachers in primary schools could improve the quality and consistency of ME instruction. Strengthening collaboration among generalist teachers, specialist teachers, school principals, and sports tutors is essential to ensuring a more unified and strategic approach. Beyond its practical implications, this study contributes to existing literature by providing new insights into how different educational stakeholders perceive ME. The results emphasize the necessity of aligning teacher training with the actual demands of ME in schools. Future research should explore the long-term impact of enhanced training programs and increased specialization, potentially using longitudinal studies and broader sample sizes. In conclusion, this study underscores the urgent need to improve generalist teacher training, integrate specialist teachers more effectively, and foster stronger collaboration among educational stakeholders. By addressing these challenges, we can enhance the quality of ME, supporting children's physical development and overall well-being in primary education.

Conflicts of interest - The authors declare no conflicts of interest.

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