

Opportunities to prevent physical inactivity through physical education classes

Lkhamsuren Vanya¹, Oyundelger Tserendorj², Bat-Otgon Batsuren^{3*}

^{1,3}School of Physical Education, Mongolian National University of Education, Mongolia

²General Education School No. 14, Ulaanbaatar, Mongolia

* Corresponding Author: Bat-Otgon Batsuren, batotgon@msue.edu.mn

CITATION

Lkhamsuren Vanya, Oyundelger Tserendorj, Bat-Otgon Batsuren, Opportunities to prevent physical inactivity through physical education classes, International Journal of Social Science and Humanities Research-MIYR 2025, 5(4), 61~72.
<https://doi.org/10.53468/mifyr.2025.5.4.61>

ARTICLE INFO

Received: 18 November 2025
Revised: 20 November 2025
Accepted: 24 December 2025
Available online: 30 December 2025

COPYRIGHT



Copyright © 2025 by author(s).
International Journal of Social Science and Humanities Research-MIYR is published by Misheel institute for young researcher's NGO. This work is licensed under the Creative Commons Attribution (CC BY 4.0) license.
<https://creativecommons.org/licenses/by/4.0/>

Abstract— Physical inactivity is a major public health concern, particularly among school-aged children with health-related limitations. Students exempted from physical education (PE) classes due to medical conditions are at heightened risk of prolonged inactivity, potentially exacerbating existing health problems. This study investigated school-based strategies for promoting physical activity among medically exempted students. A mixed-methods design was applied, involving random sampling of PE teachers from urban and rural schools in Mongolia. Data collection methods included semi-structured questionnaires, focus group interviews, and policy document analysis. Descriptive statistics were used to analyze quantitative data. A total of 314 teachers participated. The results revealed that a substantial proportion of students were exempted from PE classes, averaging 45–62 students per urban school and 30–39 per rural school. Cardiovascular and musculoskeletal conditions were the most frequently reported reasons for exemption. Although national education policies support inclusive participation, limited implementation reduces opportunities for safe and appropriate physical activity. Teachers identified adapted and therapeutic exercise as effective health-promoting strategies, but emphasized the absence of standardized programs and intersectoral guidance. The study concludes that integrating adapted physical activity into school PE curricula represents an important public health intervention to reduce physical inactivity and support the long-term health of students with medical conditions.

Keywords— Adapted physical activity; Medically exempted students; Inclusive physical education; School-based health promotion

1. INTRODUCTION

Physical inactivity is recognized as one of the major global public health challenges of the 21st century. It is identified as a key risk factor for non-communicable diseases and premature mortality worldwide. In response, the United Nations incorporated physical activity promotion into the Sustainable Development Goals (SDGs), aiming to reduce the prevalence of physical inactivity by 10% by 2030. Currently, more than 80% of World Health Organization (WHO) Member States have adopted national policies to promote physical activity; however, only 56% of these countries are actively implementing corresponding strategies and interventions. National data further underscore the severity of this issue. According to the Ministry of Health, 6% of all deaths in the country are attributable to physical inactivity. Among individuals aged 15–69 years, 21.9% are classified as physically inactive, while 52.4% report insufficient physical activity in occupational settings and 48.2% during leisure time, based on 2023 statistics. The purpose

of physical education classes is for students to participate in sports and other active activities in that class, and to participate in many sports activities throughout their lives, to acquire the ability, habits, and attitudes to support their own health continuously throughout their lives, or to develop into citizens with a healthy lifestyle. However, there are many students who cannot participate in physical education classes due to their health conditions, and it has been observed that the number of these students has increased in recent years. Students with diseases or disorders of any organ system have a greater need for health and physical fitness than healthy children attending physical education classes. However, the fact that they are exempted from physical education and do not do other forms of active physical activity causes them to lack physical activity, which greatly increases the negative effects and risks to their health. The fundamental purpose of physical education is not limited to students' engagement in physical activity during school hours, but rather to equip them with the skills, habits, motivation, and attitudes necessary to maintain an active and healthy lifestyle throughout their lives. PE aims to cultivate physically literate individuals capable of sustaining their own health and well-being across the lifespan. Despite this objective, a growing number of students are unable to participate fully in PE classes due to various health conditions, and recent observations indicate a steady increase in the number of students formally exempted from physical education.

Paradoxically, students with chronic diseases, functional limitations, or disorders affecting any organ system often have a greater need for structured physical activity and health-enhancing movement than their healthy peers. However, exemption from physical education, coupled with the absence of alternative or adapted physical activity opportunities, frequently leads to prolonged physical inactivity. This lack of movement significantly amplifies health risks, exacerbates existing conditions, and increases the likelihood of long-term physical, psychological, and social impairments.

Due to the increasing number of students being exempted from physical education because of health conditions, there is an urgent need to identify inclusive methods that ensure these students still engage in physical activity appropriate to their condition. Currently, the education system lacks specific programs, standards, and teacher preparation focused on therapeutic or modified physical education. This research aims to fill that gap by investigating how these students can be effectively and fairly included in physical education programs, thus reducing the risks of long-term inactivity.

Despite the well-established importance of regular physical activity for overall health, students who are exempted from traditional physical education (PE) classes frequently remain marginalized within school-based movement opportunities [1]. Such exclusion contributes to widening disparities in physical activity levels, health status, and developmental outcomes between students with health limitations and their peers. Evidence suggests that school environments adopting inclusive physical education practices, including pedagogical adaptations and modified activity structures, can significantly enhance participation and promote positive physical, social, and psychological outcomes for students with physical impairments or chronic health conditions [2].

Inclusive approaches typically involve modifications to equipment, rules, and task design, as well as differentiated instructional support to accommodate diverse physical and cognitive abilities. These strategies are intended to foster both meaningful physical engagement and social inclusion within PE settings, thereby supporting students' motivation and long-term participation in physical activity [3].

Despite the growing body of empirical evidence supporting inclusive and adapted physical education, implementation across educational contexts remains inconsistent and fragmented. Key barriers include insufficient teacher preparation in adapted physical activity, the absence of specialized curricula and assessment standards, and limited institutional and policy-level support [4].

These constraints hinder the systematic integration of inclusive PE practices into mainstream school programs and restrict opportunities for students with health-related exemptions to engage in appropriate physical activity. Addressing these gaps is critical not only for increasing physical activity participation among students with health limitations but also for advancing broader educational equity and public health objectives. Research has demonstrated that inclusive physical education is associated with improved physical health indicators, enhanced peer interaction, and greater emotional well-being, highlighting its potential to mitigate the adverse effects of prolonged physical inactivity in vulnerable student populations.

Therefore, the present study seeks to extend the existing evidence base by examining how students exempted from standard physical education due to health conditions can be equitably and effectively included in adapted PE programs. Particular emphasis is placed on identifying pedagogical approaches, environmental supports, and instructional strategies that facilitate sustained participation in physical activity and contribute to long-term reductions in health risks.

2. LITERATURE REVIEW

2.1 Current status of physical inactivity among General education school students

Multiple large-scale studies document alarmingly high levels of physical inactivity among school-aged children and adolescents worldwide. Using data from 520,533 adolescents aged 11–17 across 105 countries, researchers found that a majority of students engage in physical activity on three or fewer days per week, with regular daily activity declining sharply with age: from 28.2% at ages 11–12 to 21.2% at ages 16–17 for boys, and from 19.4% to 11.1% for girls respectively. This trend highlights a global deficit relative to the WHO recommendation of ≥ 60 minutes of moderate-to-vigorous physical activity daily [5].

Further evidence from cross-national analysis involving 80 low- and middle-income countries indicates even higher prevalence of physical inactivity, with approximately 84% of school students classified as physically inactive and 37% reporting more than 3 hours per day of sedentary behavior outside school [2]. Only about one-third of adolescents across these settings met criteria for habitual physical activity on three or more days per week, underscoring the ubiquity of languorous behavior (physical inactivity and sedentary time) among youth [6].

Research not only quantifies prevalence but also identifies associated factors. In multinational data from 142,118 adolescents aged 12–15 in 48 LMICs, only 15.3% met WHO physical activity recommendations, with participation positively associated with frequent PE class attendance and male gender, and inversely associated with food insecurity, low fruit/vegetable intake, low parental support, social isolation, and experiences of bullying [7]. These findings reveal both behavioral and environmental contributors to inactivity.

Physical inactivity among students in general education schools has emerged as a significant public health concern in Mongolia. Available evidence indicates that a substantial proportion of school-aged children fail to meet the recommended levels of daily physical activity. According to international guidelines issued by the World Health Organization, children and adolescents aged 5–17 years are advised to engage in at least 60 minutes of moderate-to-vigorous physical activity per day; however, nationally representative data suggest that more than 50% of Mongolian students do not achieve this recommended threshold, indicating a high prevalence of insufficient physical activity at the population level. Recent studies conducted during and after the COVID-19 pandemic have demonstrated a statistically significant decline in physical activity levels among Mongolian children aged 5–13 years, accompanied by a marked increase in sedentary behaviors, particularly screen-based activities. Survey-based analyses reveal that approximately 60% of participating children reported a reduction in overall physical activity during pandemic-related restrictions, while average daily screen time increased beyond recommended limits. These changes persisted beyond the acute phase of the pandemic, suggesting a sustained shift toward sedentary lifestyle patterns.

School curricula and structured physical education (PE) programs also appear to be inadequately aligned with students' physical activity needs. Evaluations of PE implementation indicate that limited lesson frequency, insufficient intensity of activities, and constraints related to facilities and trained personnel significantly reduce opportunities for active participation. Quantitative assessments show that PE classes often fail to provide sufficient moderate-to-vigorous physical activity to meet health-promoting standards, resulting in low cumulative weekly activity levels among students. Compounding this issue, national health surveys have documented an increasing prevalence of overweight and obesity

among Mongolian adolescents, with reported rates exceeding 10–15% in certain age groups, a trend that has been statistically associated with low physical activity levels and prolonged sedentary behavior. Epidemiological analyses further suggest that physically inactive students exhibit a higher risk profile for adverse cardiometabolic outcomes, including increased body mass index and reduced aerobic fitness.

Taken together, these findings demonstrate a substantial burden of physical inactivity and movement-related deficits among EBS students in Mongolia. The convergence of declining activity levels, insufficient school-based physical education, and rising overweight prevalence underscores the urgent need for evidence-based, targeted interventions at both school and policy levels to promote physical activity and prevent long-term health consequences. Students medically exempted from physical education (PE) classes are frequently unable to fully participate in standard PE activities due to underlying health conditions, including cardiovascular disorders, chronic respiratory diseases, muscular weakness, and musculoskeletal impairments [8].

Evidence from prior studies suggests that, although physical activity is not necessarily contraindicated for these students, there is a clear need to provide safe, adapted, and appropriately regulated exercise opportunities within the PE curriculum. In practice, such individualized and inclusive interventions are often insufficiently implemented, resulting in limited engagement. Consequently, students exempted from PE tend to demonstrate lower levels of overall physical activity and adopt more sedentary lifestyles compared to their peers, thereby increasing their risk of physical inactivity-related health outcomes [9].

Furthermore, complete exemption from PE may negatively impact not only physical activity participation but also psychosocial factors, including social integration, participation in group activities, and self-efficacy in movement. Accordingly, integrating medically exempted students into instructional PE activities through adaptive and inclusive approaches represents a critical strategy for mitigating physical inactivity and associated movement-related disorders, as underscored by current empirical evidence [10].

Students medically exempted from physical education (PE) classes are frequently unable to fully participate in standard PE activities due to underlying health conditions, including cardiovascular disorders, chronic respiratory diseases, muscular weakness, and musculoskeletal impairments. Evidence from prior studies suggests that, although physical activity is not necessarily contraindicated for these students, there is a clear need to provide safe, adapted, and appropriately regulated exercise opportunities within the PE curriculum. In practice, such individualized and inclusive interventions are often insufficiently implemented, resulting in limited engagement. Consequently, students exempted from PE tend to demonstrate lower levels of overall physical activity and adopt more sedentary lifestyles compared to their peers, thereby increasing their risk of physical inactivity-related health outcomes [11].

Furthermore, complete exemption from PE may negatively impact not only physical activity participation but also psychosocial factors, including social integration, participation in group activities, and self-efficacy in movement. Accordingly, integrating medically exempted students into instructional PE activities through adaptive and inclusive approaches represents a critical strategy for mitigating physical inactivity and associated movement-related disorders, as underscored by current empirical evidence [12].

2.2 Opportunities for full student inclusion in physical education instruction

In the post-World War II era, Japan reformed its education system, guaranteeing the right to education for all, including students with disabilities under the Constitution, and special education systems began to be established for children with disabilities in compulsory education around 1979, enabling access to public schooling for previously excluded students [13]. Historically, Japanese special needs education was delivered largely through segregated special schools and special classes, leading to limited inclusion in mainstream settings [14].

In response to international trends toward inclusive education, Japan introduced changes beginning in the 1990s, including resource room systems that allowed students with mild disabilities to receive support while spending most of their

time in regular classrooms [15]. A major shift occurred in 2007 when Japan replaced its traditional segregated special education system (Tokushukyoiku) with a special needs education system (Tokubetsushienkyoiku) aiming to provide appropriate individualized support across all school types, a reform closely linked to the ratification of international disability rights norms such as the United Nations Convention on the Rights of Persons with Disabilities signed in that year [16].

The introduction of the special needs education system represented a move toward inclusive education, emphasizing reasonable accommodations for students' individual needs within mainstream schools, and subsequent revisions in 2013 further expanded educational placement options, requiring educational authorities to respect children and guardians' preferences for placement in regular or special settings [17]. Around the same period, South Korea also intensified its efforts toward inclusive education, with policy reforms since the 1990s and an increasing proportion of students with disabilities attending general education settings, reaching approximately 70.7% inclusive participation by 2012 and consistently high participation rates in later years, though with variation in full time inclusion versus special classroom placement within mainstream schools [18]. Additionally, Finland implemented its own inclusive support model through legislative reforms such as the Basic Education Act (642/2010) and a three-tier support system beginning in 2011, ensuring that all students, regardless of needs, are eligible for necessary educational support without special classification into separate groups [19].

Teacher attitudes and preparedness have been identified as critical factors in the successful implementation of inclusive education across these contexts. For example, studies across Japan and Finland show that teachers' preparedness, self-efficacy, and training significantly influence inclusive practice adoption, indicating that systemic reforms must be accompanied by professional development and support for educators [20]. Overall, these historical developments reflect a global shift from segregation to more inclusive education models, prioritizing equitable access to education and individualized support mechanisms within ordinary school settings.

3. RESEARCH DESIGN

Research area: In total, 314 physical education teachers participated in the study. This sampling strategy ensured representativeness across urban and rural contexts and enhanced the external validity of the findings.

Research methodology: We have used the following methods:

- Respondents were randomly selected.
- The number of students who drop out of physical education classes, their reasons for dropping out, and the difficulties and possibilities of fully including students in classes were determined through semi-closed questionnaires and focus group discussions.
- The law related to the issue by means of content analysis. Analyzed the legal provisions.
- Mathematical and statistical processing was carried out

In summary, this research design enabled a systematic and evidence-based examination of the problem of physical inactivity among students exempted from physical education and provided a robust methodological foundation for identifying inclusive practices through therapeutic exercise within the framework of modern inclusive education.

4. RESEARCH RESULTS

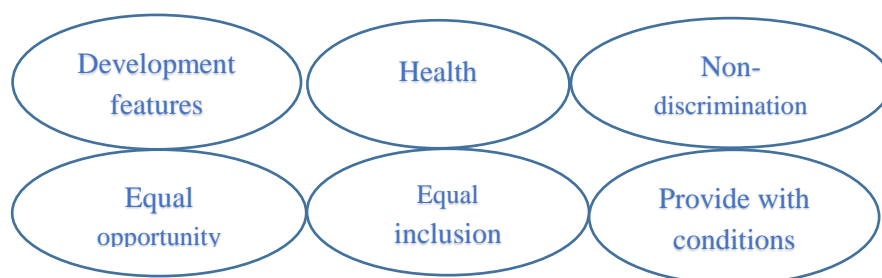
4.1 Document Analysis

A. Content analysis method was used to analyze legal documents related to that issue.

Table 1. Analysis of current legal documents

No.	Name of Document	Clause of document
1	Law of Mongolia – Education Act	Article 4.1: Education shall aim to develop physically capable, independent, intellectually and morally developed individuals.
2	Law of Mongolia – Education Act	Article 5.1.4: Education shall respect learners’ developmental characteristics and health, ensure non-discrimination, and provide equal opportunities and conditions.
3	Law of Mongolia – Education Act	Article 1.3: Education shall be inclusive and implemented in cooperation with relevant organizations.
4	Law of Mongolia – Education Act	Article 1.5: Education policy shall be based on principles of health promotion, inclusion, and commitment.
5	Law of Mongolia – Education Act	Article 2.3.6: Education services shall ensure equal access and coverage.
6	Law of Mongolia – Education Act	Article 44.2.5: Learners requiring special support shall be provided with humane treatment and appropriate assistance.
7	Law of Mongolia – Education Act	Article 44.2.7: Educational environments shall ensure health protection and safety.
8	Law of Mongolia – Education Act	Article 5.1.3: Education shall be organized in accordance with learners’ needs and developmental characteristics.
9	Law of Mongolia – Education Act	Article 5.1.4: Non-discrimination shall be ensured regardless of ethnicity, race, developmental status, health condition, social background, wealth, occupation, position, religion, mother tongue, or educational background, and equal opportunities and conditions shall be guaranteed.

Scheme 1. Conjunctions with the legal concept of full inclusion of students in physical education



B. A content analysis was conducted on the provisions of the documents that appeared on how to include students who are not participating in physical education classes due to their health conditions.

Table 2. Facts about the full inclusion of students in physical education

1996	<ul style="list-style-type: none">• It was discussed and approved at the meeting of the Ministry of Education, Educational Development School, Physical Education Methodology Council of Mongolia on September 12, 1996..• "Fitness section"
1998	<ul style="list-style-type: none">• In June 1998, the Mongolian Ministry of Education and Standards Committee approved the standards (elementary education content-MNS5001-2:98, elementary education content-MNS5001-3:98, and secondary education content-MNS5001-4:98)..• "Health group"
1999	<ul style="list-style-type: none">• Approved by Joint Order No. 65/42 of 1998 of the State Secretaries of the Ministry of Health and Social Security and the Ministry of Education.• "Therapeutic physical education section"
2004	<ul style="list-style-type: none">• Standardization was approved by Resolution No. 59 of December 23, 2004 of the National Council of Metrology. Primary and Secondary Education, Physical Education MNS5420218:2004• "Health Group"
2016	<ul style="list-style-type: none">• According to the Ministry of Education, Culture and Sports Ministry's order No. A/424 dated October 22, 2015, it was approved as a unified content of sports and health subjects in accordance with the direction of approving the curriculum of senior classes.• A group of topics in the content of the senior class "Therapeutic physical exercise".
2018	<ul style="list-style-type: none">• It is based on the training plan approved by the Ministry of Education, Culture, Sports, Science and Technology Minister's Order No. A/453 dated July 9, 2018.• A group of topics in the content of the senior class "Therapeutic physical exercise"

Analysis conclusion of content analysis method

A. The content, concepts, concepts, and terms of the provisions of the Law and Education Law of Mongolia are distinguished by stable conjunctions, qualitative analysis to detect the underlying meaning, and quantitative analysis to determine the frequency of the content are carried out. , the possibility of full implementation and the need for implementation.

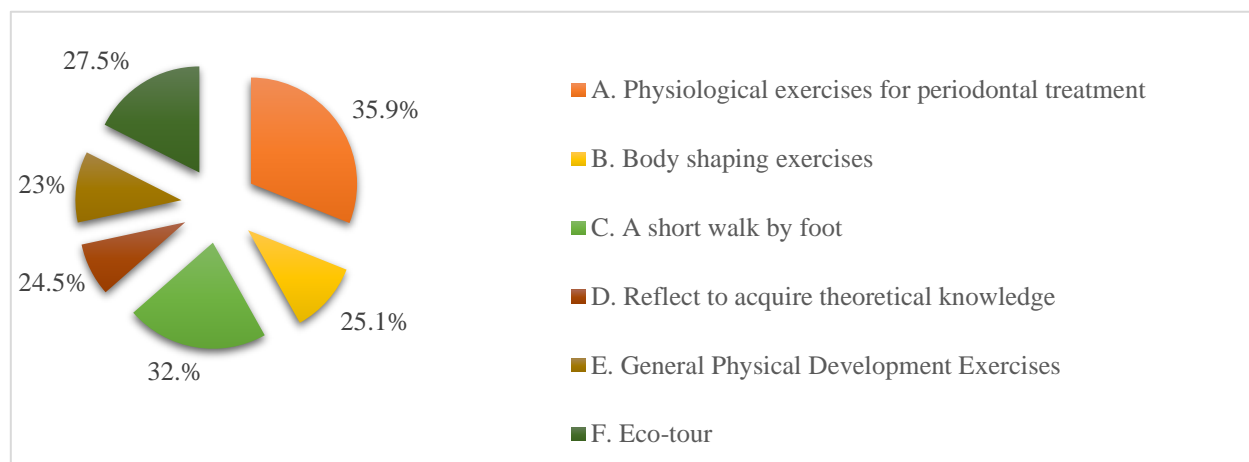
B. Since 1996, the inclusion of students who are not participating in physical education due to health reasons has been officially included in the educational documents.

Currently, therapeutic exercises are included in the curriculum of the updated core curriculum to be studied in the 10th, 11th, and 12th grades. Students who are excused from school due to health reasons need to do therapeutic and physical development and fitness exercises for the entire school year, and the legal framework of the education sector has reflected the full opportunity to solve this problem.

4.2 Results of the survey

The study was conducted in 3 phases with 10 and 5 year intervals, and the results of the current study are presented. The 3rd stage of the survey will be continued to cover all districts of 21 provinces. In the 1st stage - Ulaanbaatar and local 132, 2nd stage - 120 teachers from Ulaanbaatar and rural areas, 3rd stage - 62 teachers from Ulaanbaatar and rural areas, a total of 314 teachers participated. In accordance with the research methodology, a semi-closed questionnaire was created to clarify the quantitative indicators and reasons of students who are exempted from physical education classes, as well as the difficulties and opportunities for full inclusion of students in classes.

Scheme 2. Number of students exempted from physical education/average of 1 school/



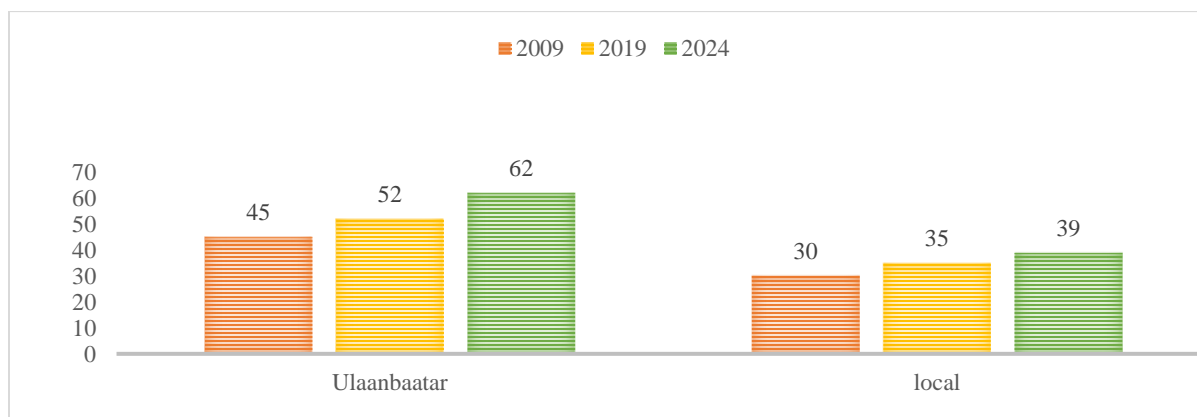
During the research period, an average of 45-62 students per school in Ulaanbaatar city and 30-39 students per school in rural areas were excused from physical education due to some illness or disorder.

Table 3. Number of students who are exempted from physical education classes /percentage/

School	2009	2019	2024
Ulaanbaatar	1884 students	+15.6%	+19.2%
Local	1224 students	+16.7%	+11.4

During the period covered by the study, the number of students exempted from physical education from 1 school has increased compared to the indicators of the previous study, and the number of students in the schools of Ulaanbaatar city has shown a steady increase. Most of the students who are absent from physical education are due to cardiovascular diseases and injuries, while there are also a large number of students who are absent from classes due to kidney disease, hip dislocation or surgery. According to the research data of 2019 and 2024, there is also a certain percentage of students who are exempted due to autism spectrum disorders.

Scheme 3. The teachers involved in the study determined the possibilities of including students who are exempted from physical education classes



The majority of the teachers who participated in the study considered that doing exercises suitable for the student's illness or disease is a form of full inclusion of the students in the lesson..

4.3 Findings from interview research

- 1) A total of 8 elementary school teachers participated, and the survey was conducted by interviewing, obtaining consent, and writing down the questions that were directed to clarifying the research questions of the questionnaire. Before the start of the interview, an introduction was made and the order of the interview was explained, with a total of 5 main questions and some additional clarifications. The participants were divided into 2 groups of 4 people and the focus group interview was conducted. Record information is summarized and conclusions are below.
- 2) Sick students who are exempted from physical education classes are not regularly actively involved in physical education activities, health promotion and health promotion activities are not carried out due to the heavy workload and 2-3 classes in 1 hour. Students who are exempted from physical education participate in the lesson from the position of an observer, so they are evaluated by doing a knowledge test task.
- 3) It was observed from the interview that although teachers have the ability to teach therapeutic physical exercises, they lack experience in developing special standards and programs, lack of teaching environment, professional advice, and methodological training.

5. DISCUSSION

The present study contributes to the growing body of research on inclusive physical education by examining the full inclusion of students excused from physical education (PE) classes due to health-related conditions within the Mongolian educational context. The findings highlight a critical discrepancy between the existing legal framework that supports inclusive education and the actual practices observed in schools.

Consistent with international research on inclusive education, the document analysis confirms that Mongolian education legislation aligns with global principles emphasizing non-discrimination, equal opportunity, and learner-centered support. Similar to the approaches adopted in countries such as Finland, Japan, and the Russian Federation, national policies formally recognize the necessity of providing educational and health-related support to students with diverse needs. The inclusion of therapeutic and health-oriented exercises in the updated core curriculum further reflects a policy-level acknowledgment of physical inactivity as an educational and public health issue.

However, the quantitative results reveal a steady increase in the number of students exempted from PE classes, particularly in urban schools. This finding is consistent with international trends reporting higher prevalence of chronic diseases and health-related learning limitations among school-aged children in urbanized settings. The predominance of cardiovascular conditions, musculoskeletal disorders, and neurodevelopmental challenges such as autism spectrum disorders underscores the need for adaptive and therapeutic approaches rather than complete exclusion from physical activity.

Teacher perceptions identified in this study support existing literature that recognizes teachers as key agents in successful inclusive practice. Most participating teachers acknowledged that therapeutic and adapted physical exercises represent the most appropriate means of including students with health limitations in PE classes. Nevertheless, qualitative interview data indicate that teachers face substantial barriers, including insufficient methodological training, lack of standardized assessment tools, limited interdisciplinary cooperation, and structural constraints such as large class sizes and restricted instructional time. These challenges mirror findings from previous studies, which suggest that positive attitudes alone are insufficient to ensure effective inclusion without adequate institutional support.

The tendency to assign medically exempted students to passive observer roles or theoretical assessments reflects a persistent gap between inclusive education principles and classroom realities. From a pedagogical perspective, such practices not only undermine the objectives of physical education but also contribute to prolonged physical inactivity, thereby increasing health risks. The findings suggest that inclusive physical education should be understood not merely as physical presence in the lesson, but as meaningful and health-appropriate participation tailored to individual needs.

Overall, the discussion indicates that the primary challenge lies not in policy formulation, but in translating inclusive education principles into practical, sustainable instructional strategies. Addressing this gap requires systemic interventions, including curriculum adaptation, professional development, and the integration of health and education expertise.

6. CONCLUSION

This study examined the issue of physical inactivity among students excused from physical education (PE) classes due to health-related conditions and assessed the feasibility of their full inclusion within the existing educational framework of Mongolia. The findings reveal a fundamental discrepancy between inclusive education policies and their practical implementation in physical education settings.

The primary challenge identified is the prevailing exclusion-based practice in PE lessons, where students with medical exemptions are formally included but functionally marginalized. These students are frequently assigned passive observer roles or evaluated through theoretical tasks, resulting in minimal physical engagement. Such practices not only contradict the core principles of inclusive education but also exacerbate physical inactivity, thereby increasing health risks for an already vulnerable population. This indicates that the core problem lies not in policy absence, but in the misinterpretation and incomplete operationalization of inclusion in physical education.

Based on the empirical findings, this study advances the concept of health-adaptive participation as a central mechanism for achieving full inclusion in physical education. Rather than exempting students from physical activity, inclusion should be realized through therapeutic and individually adapted exercises integrated into regular PE lessons. This approach reframes inclusion as meaningful, health-appropriate participation aligned with students' functional capacities and medical needs, rather than mere attendance or symbolic involvement.

To operationalize this concept, several strategic directions are proposed. First, standardized adaptive physical education programs for students in health-related special groups should be developed and institutionalized. These programs must define clear objectives, structured therapeutic exercise modules, and differentiated assessment criteria based on individual health conditions. Second, sustained professional development for PE teachers is essential, with an emphasis on therapeutic exercise methodology, inclusive pedagogy, and interdisciplinary collaboration with healthcare specialists. Teacher willingness alone is insufficient without systematic methodological and institutional support.

Third, inclusive physical education requires enabling conditions at the school level, including manageable class sizes, access to professional consultation, and appropriate facilities and equipment to ensure safety and effectiveness. Fourth, assessment systems in PE should shift from uniform performance-based standards toward individualized, progress-oriented evaluation models that recognize participation, functional improvement, and health outcomes.


In conclusion, the study demonstrates that the successful inclusion of students excused from physical education depends not on legislative reform, but on the development of coherent implementation mechanisms that translate inclusive principles into pedagogical practice. By institutionalizing health-adaptive participation and therapeutic exercise within the PE curriculum, education systems can effectively address physical inactivity, promote health equity, and enhance the long-term well-being of students with health-related limitations. The findings provide a foundation for evidence-based policy development, curriculum innovation, and future research aimed at designing and evaluating inclusive physical education models that integrate educational and health objectives.

REFERENCES


- [1] Strong, W. B., Malina, R. M., Blimkie, C. J. R., Daniels, S. R., Dishman, R. K., Gutin, B., ... Trudeau, F. (2005). Evidence-based physical activity for school-age youth. *The Journal of Pediatrics*, 146(6), 732–737. <https://doi.org/10.1016/j.jpeds.2005.01.055>
- [2] Haegele, J. A., & Sutherland, S. (2015). Perspectives of students with disabilities toward physical education: A qualitative inquiry. *Quest*, 67(3), 255–273. <https://doi.org/10.1080/00336297.2015.1050118>
- [3] Block, M. E. (2016). *A teacher's guide to adapted physical education* (4th ed.). Paul H. Brookes.
- [4] Hutzler, Y., Meier, S., Reuker, S., & Zitomer, M. (2019). Perspectives of inclusion in physical education: A systematic review. *Quest*, 71(4), 419–436. <https://doi.org/10.1080/00336297.2019.1631941>
- [5] Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2020). Prevalence of physical activity participation among adolescents from 105 low-, middle-, and high-income countries. *The Lancet Child & Adolescent Health*, 4(1), 23–35. [https://doi.org/10.1016/S2352-4642\(19\)30323-2](https://doi.org/10.1016/S2352-4642(19)30323-2)
- [6] Marques, A., et al. (2021). Physical inactivity and sedentariness: Languorous behavior among adolescents in 80 countries. *Preventive Medicine Reports*, 22, Article 101327. <https://doi.org/10.1016/j.pmedr.2021.101327>
- [7] Shahar, S., et al. (2014). Factors associated with physical inactivity among school-going adolescents: Data from the Malaysian School-Based Nutrition Survey 2012. *Public Health Nutrition*, 17(6), 1231–1238. <https://doi.org/10.1017/S1368980013001968>
- [8] World Health Organization. (2020). *Guidelines on physical activity and sedentary behaviour*. WHO.
- [9] Batbaatar, T., Davaalkham, D., & Enkhtuya, B. (2020). Physical activity patterns and sedentary behavior among Mongolian children aged 5–13 years during the COVID-19 pandemic. *Open Public Health Journal*.
- [10] World Health Organization, & Ministry of Health of Mongolia. (2010). *Global school-based student health survey (GSHS): Mongolia country report*. WHO.
- [11] Sherrill, C. (2004). *Adapted physical education and recreation* (6th ed.). McGraw-Hill.
- [12] Nap, K., Iwaga, K., Yano, E., et al. (2013). Development of co-education and inclusive education for students with disabilities in Japan. *Japanese Journal of Special Education*, 50(4), 321–330.
- [13] Nakamura, H., & Oka, T. (2007). Transition from special education to special needs education in Japan: Respect for diversity and social participation. *Journal of Disability Studies*, 29(2), 45–53.
- [14] Murata, S., & Yamaguchi, T. (2010). Educational support systems for students with learning disabilities under the special needs education framework. *Asian Journal of Special Education*, 18(1), 15–24.
- [15] Ministry of Education, Republic of Korea. (2007). *Act on Special Education for Persons with Disabilities and Others*.
- [16] Boichenko, S. F., & Rudeva, T. V. (2017). Organization of physical education for students with health limitations in the Russian Federation. *Theory and Practice of Physical Culture*, (6), 28–32.
- [17] Finnish Ministry of Education and Culture. (2010). *Basic Education Act (642/2010)*.
- [18] Eklund, K., Niemi, P., Poikkeus, A. M., et al. (2020). Finnish three-tier support system: Inclusive education and early intervention practices. *European Journal of Special Needs Education*, 35(4), 1–15. <https://doi.org/10.1080/08856257.2020.1732105>
- [19] Coladarci, T., & Breton, Y. (1997). Teacher motivation and autonomy in inclusive educational practices. *Journal of Educational Research*, 90(5), 290–297.
- [20] Tuul, S., Oyundari, T., Tsogtbayar, Ch., Battugs, M., Bat-Ochir, A. (2025). Improving student physical training through inclusive and differentiated approaches, International journal of social science and humanities research-MIYR, 5(2), 84-101. <https://doi.org/10.53468/mifyr.2025.05.02.84>

AUTHOR'S INTRODUCTION


1. First Author

	Lkhamsuren Vanya lsamaday@msue.edu.com
	<p>Master's Degree in Medicine</p> <p>Work: Department of Physical Education and Sports Theory and Methodology, School of Physical Education, Mongolian National University of Education Work field: Exercise Physiology, Health, and Rehabilitation / Movement Therapy)</p>

2. Corresponding Author

	Bat-Otgon Batsuren batotgon@msue.edu.mn
	<p>2012 PhD in Educational Studies, Mongolian National University of Education</p> <p>Work: Associate Professor, Department of Sports, School of Physical Education, Mongolian National University of Education Work field: Physical Education, Sports biomechanics, Sports training</p>

3. Co-Author

	Oyundelger Tserendorj oyundelgertserendorj71@gmail.com
	<p>Master's Degree in Educational Studies, Mongolian National University of Education</p> <p>Work: Teacher, School № 14, Ulaanbaatar, Mongolia Work field: Physical Education, Rehabilitation / Movement Therapy)</p>