

Exploring the Role of Physical Education in Supporting School Belonging, Self Worth and Mental Wellness Among First Nations Students

Rey Z. Malabug^{1*} and Severino T. Morales Jr.¹

¹Northeastern College

*reymalabugmsk@gmail.com

Date Submitted:
February 25, 2026

Date Accepted:
March 29, 2026

Date Published:
April 24, 2026

DOI:
10.5281/zenodo.19737316

ABSTRACT

This study positioned physical education as a potentially important school-based pathway for strengthening psychosocial well-being among First Nations students. It investigated the role of physical education in supporting school belonging, self-worth, and mental wellness among First Nations students in Manitoba using a cross-sectional explanatory quantitative design. Data were gathered through a validated researcher-developed questionnaire and analyzed using descriptive statistics and Partial Least Squares Structural Equation Modeling. The findings showed that physical education experiences were generally rated high, while school belonging was also high. Self-worth registered at a moderate to high

level, whereas mental wellness received the lowest mean and remained at a moderate level, indicating a continuing area of concern. Measurement model results confirmed acceptable reliability and validity of the constructs. Structural model analysis revealed that physical education experiences significantly predicted school belonging, self-worth, and mental wellness. The strongest effect was found on school belonging, followed by self-worth, while the weakest but still significant effect was observed on mental wellness. The results suggest that physical education functioned most effectively as a relational and affirming school context that fostered inclusion, recognition, and positive self-perception. However, its limited explanatory power for mental wellness indicates that broader school and community supports remain necessary. The study concludes that physical education can contribute meaningfully to student well-being when implemented as an inclusive, culturally affirming, and supportive educational space.

Keywords: *First Nations students, mental wellness, physical education, school belonging, self-worth, student well-being*

INTRODUCTION

Physical education is increasingly being understood not only as a school subject concerned with movement, fitness, and motor competence, but also as a meaningful educational space where students develop relationships, confidence, identity, and emotional well-being. Recent evidence shows that physical activity and exercise are associated with important mental health outcomes among children and adolescents, including lower levels of anxiety, depression, stress, and related psychological difficulties, alongside better well-being and other positive psychological responses (Li et al., 2023; Ruiz-Ranz et al., 2025). In school

settings, physical education offers regular, structured, and socially shared experiences that can influence how students feel about themselves and how they connect with others in the school environment.

The value of school belonging has become even more central in contemporary educational research because belonging is closely tied to students' long-term mental health and educational adjustment. A recent prospective cohort study found that higher levels of school belonging in adolescence were associated with lower levels of depression, anxiety, and stress across young adulthood, with feeling socially valued emerging as a particularly important dimension (Allen et al., 2024). This is highly relevant to physical education because the subject often involves teamwork, participation, peer recognition, embodied competence, and shared success or struggle, all of which can either strengthen or weaken students' sense that they are accepted and valued members of the school community. When physical education is inclusive, supportive, and affirming, it may function as a practical site for cultivating belonging rather than merely a venue for physical performance.

Physical education also has strong implications for self-worth. Research in physical education contexts has shown that students' self-esteem is linked to the satisfaction of psychological needs and to the motivational climate created in class (Valero-Valenzuela et al., 2021). Related work has likewise emphasized that physical education can positively affect students' self-esteem, particularly when pedagogical practices allow choice, autonomy, and meaningful participation (Granero-Gallegos et al., 2023). These insights suggest that physical education can either validate or diminish students' sense of personal value, depending on how it is taught. For learners who have historically experienced exclusion, stereotyping, or marginalization in schools, the quality of the physical education experience may therefore carry significance beyond recreation or fitness, extending into identity formation, confidence, and emotional security.

This concern becomes more urgent when the discussion is situated in relation to First Nations students. In Canada, schooling cannot be separated from the enduring effects of colonization, residential schooling, cultural disruption, and structural inequities that have shaped Indigenous educational experiences across generations. Federal and provincial responses to the Truth and Reconciliation Commission's Calls to Action continue to stress the need for age-appropriate curriculum on residential schools, Treaties, and Indigenous peoples' historical and contemporary contributions, as well as better integration of Indigenous knowledge and teaching approaches in education (Government of Canada, 2025). In Manitoba, current education policy developments also show explicit attention to student belonging, mental health in schools, Treaty education, and the inclusion of Elders and Knowledge Keepers in learning environments (Manitoba Education and Early Childhood Learning, 2025). These developments indicate that student well-being and Indigenous inclusion are not peripheral concerns but central educational priorities.

Mental wellness is understood in more holistic and relational ways than narrow clinical models usually allow. Manitoba-based scholarship has emphasized that First Nations perspectives on wellness extend beyond illness management and are grounded in interconnected dimensions of being well, including family, community, culture, and traditional knowledge (Kyoon-Achan et al., 2021). At the same time, recent population-based research has shown that First Nations children in Manitoba face greater mental health burdens than other children in the province, underscoring the importance of supportive and culturally responsive school environments (Chartier et al., 2024). These realities suggest that school-based efforts to support mental wellness among First Nations learners should not be limited to counselling or crisis response alone. They should also examine everyday educational spaces, including physical education, where identity, confidence, social connection, and cultural safety may be actively shaped.

Physical education may be especially promising in this regard because movement, recreation, and sport can operate as social and cultural practices, not only as instructional activities. Canada's recent review of Indigenous-led sport systems notes that Indigenous sport initiatives have evolved to include physical activity, health, physical education, and wellness, while community-driven programs are described as

enhancing quality of life through physical activity and cultural activity (Government of Canada, 2026). The same national review further notes that Indigenous sport can foster pride, unity, and cultural connection. In broader Canadian data, people commonly report participating in sport for reasons tied not only to physical health but also to mental health, enjoyment, relaxation, and time with friends (Government of Canada, 2025). These observations strengthen the argument that physical education, when approached in culturally responsive and relational ways, may serve as a meaningful pathway for supporting school belonging, self-worth, and mental wellness among First Nations students in Manitoba. Yet despite the conceptual promise of this area, there remains a need for focused research that examines this relationship directly within the Manitoba First Nations educational context. The present study is therefore necessary because it addresses an important gap at the intersection of Indigenous education, student wellness, and the educational role of physical education.

Literature Review

Physical Education as a Developmental and Relational School Space

Physical education has long been positioned as a curricular area concerned with movement competence, health habits, and active living, but more recent scholarship shows that its educational value extends well beyond physical outcomes. Contemporary evidence indicates that physical activity and exercise are linked not only to physical fitness, but also to important psychosocial outcomes among children and adolescents, including improved well-being, reduced psychological distress, and stronger positive self-perceptions (Li et al., 2023; Ruiz-Ranz & Asín-Izquierdo, 2025). This broader view is reinforced by the World Health Organization, which frames physical activity as a major contributor to health across the life course and emphasizes its significant benefits for children and adolescents (World Health Organization [WHO], 2020).

A systematic review by Flores-Piñero et al. (2024) found that motivational climate in physical education is closely connected to adolescents' physical self-concept and social relationships, indicating that teacher-created learning environments influence how students perceive themselves and relate to others. Similarly, Granero-Gallegos et al. (2023) reported that teacher autonomy support in physical education significantly contributes to students' self-esteem, with emotional intelligence playing an important mediating role. These studies suggest that physical education is not a neutral instructional space. It can either affirm students' sense of competence and connection or undermine it, depending on how participation, teacher support, peer interaction, and classroom climate are organized. This makes physical education highly relevant in research that examines students' social belonging, self-worth, and mental wellness.

School Belonging as a Core Educational Outcome

School belonging has emerged as one of the most important psychosocial constructs in contemporary education because it reflects whether students feel accepted, respected, included, and socially valued within the school community. It is not limited to simple attendance or participation, but involves the deeper perception that one matters in school and has meaningful relational ties there. This has made school belonging a central concept in studies of student well-being, engagement, and adjustment. In a multi-wave prospective cohort study, Allen et al. (2024) found that higher levels of adolescent school belonging were associated with lower levels of depression, anxiety, and stress well into young adulthood. Their findings were especially notable in showing that feeling socially valued at school had an independent and lasting protective association with later mental health outcomes.

Rose et al. (2024), in a meta-analytic review, found that school connectedness had a statistically significant protective effect across multiple adolescent health risk domains, including mental health. Their review further showed that school belonging and related subconstructs function as meaningful buffers

against adverse outcomes. This body of work is highly relevant to physical education because belonging can be shaped in settings where students interact with peers, negotiate competence, receive teacher recognition, and experience inclusion or exclusion in visible ways. Since physical education often places students in social, public, and embodied learning situations, it may be one of the school subjects most capable of strengthening school belonging when it is intentionally inclusive and relationally supportive.

Self-Worth and Positive Self-Perception in Physical Education

Self-worth, often discussed through related constructs such as self-esteem, self-concept, and feelings of personal value, remains a critical dimension of adolescent development. Students' perceptions of their worth are shaped by repeated experiences of competence, recognition, comparison, encouragement, and failure across school life. Within educational settings, physical education is especially significant because it places the body, performance, and visible participation at the center of learning. This creates both opportunities and risks. On one hand, physical education can foster mastery, confidence, and pride. On the other hand, poorly structured experiences may intensify embarrassment, teasing, or feelings of inadequacy.

Granero-Gallegos et al. (2023) found that autonomy-supportive teaching in physical education was positively associated with self-esteem among secondary school students. In a related line of scholarship, Laurier et al. (2024) showed that physical activity contributes to adolescents' mental health through self-esteem, suggesting that self-worth functions as an important psychological pathway through which activity supports broader well-being. Flores-Piñero et al. (2024) likewise highlighted the interconnectedness of motivational climate, physical self-concept, and adolescents' social relationships in physical education classes. Collectively, these findings suggest that self-worth in physical education is not simply a byproduct of athletic success. Rather, it is shaped by pedagogical choices that communicate whether students are capable, respected, and able to participate meaningfully regardless of their skill level.

Mental Wellness and the Protective Potential of Physical Activity

Mental wellness among children and adolescents has become a major concern in global health and education. The World Health Organization reported that one in seven adolescents aged 10 to 19 experiences a mental disorder, and that depression, anxiety, and behavioural disorders are among the leading causes of illness and disability in this age group (WHO, 2025). This underscores the urgency of identifying school-based conditions and practices that can protect and strengthen student well-being. Schools are not only academic institutions but also everyday developmental environments where students encounter stress, social evaluation, support, and opportunities for resilience. Because physical education is a routine and universal part of schooling for many students, it deserves closer attention as a possible contributor to mental wellness rather than being treated only as a health or recreation subject.

Li et al. (2023), in a systematic review and meta-analysis, found that physical activity was associated with better mental health outcomes among children and youth. Ruiz-Ranz and Asín-Izquierdo (2025) similarly concluded that physical activity and exercise have meaningful effects on adolescent mental health, strengthening the case for movement-based interventions and experiences during the school years. Laurier et al. (2024) further demonstrated that self-esteem can help explain how physical activity benefits adolescent mental health, which is particularly relevant when examining physical education as both a social and psychological context. When viewed together with evidence on school belonging and self-worth, the literature suggests that physical education may support mental wellness not only through physiological benefits, but also through relational affirmation, perceived competence, and meaningful participation. This integrated perspective provides a strong conceptual basis for examining physical education as an educational space that can contribute to students' psychosocial well-being.

METHODS

Research Design

This inquiry employed a cross-sectional explanatory quantitative design. The design was selected because it allowed the study to examine how physical education, as experienced by students within the school setting, related to the three focal psychosocial outcomes of school belonging, self-worth, and mental wellness at a single point in time. Rather than merely describing perceptions, the design was structured to test the predictive contribution of physical education-related experiences to these student outcomes. This approach was appropriate because the study centered on latent social and psychological constructs that could be measured through structured indicators and analyzed through model-based statistical procedures. The design also permitted the development of a coherent empirical account of how participation in and experiences of physical education may function as a supportive factor in students' school lives.

Research Locale

The study was carried out in selected school settings in Manitoba, Canada, where First Nations students were enrolled in basic education programs and where physical education formed part of the regular school curriculum. Manitoba provided a relevant educational context because schools in the province serve diverse Indigenous learners across varying community and institutional settings. Data collection was undertaken only in sites that granted formal permission and were able to support the ethical requirements of the study. The research setting was treated as an educational environment in which school-based physical education experiences could be examined in relation to students' psychosocial outcomes.

Participants and Sampling Technique

The participants of the study were First Nations students who met the inclusion criteria established by the researcher and the participating schools. Eligibility was limited to students who were currently enrolled in schools offering physical education and who were able to provide informed assent, together with the required parental or guardian consent when applicable. To obtain a more balanced representation of students across participating school settings, the study used multi-stage stratified sampling. In the first stage, participating schools were identified based on access approval and suitability for the study. In the second stage, students were grouped according to relevant school-based strata, after which respondents were selected through random procedures within each stratum. This technique was adopted to reduce overrepresentation from any single group and to improve the distribution of cases across the study context.

Research Instrument

Data were gathered through a researcher-developed survey questionnaire designed specifically for the study. The instrument consisted of four parts corresponding to the major constructs under investigation: physical education experiences, school belonging, self-worth, and mental wellness. The items were phrased as clear declarative statements and were answered using a five-point Likert scale ranging from strongly disagree to strongly agree. The wording of the items was refined to ensure clarity, age appropriateness, and cultural sensitivity.

Before actual administration, the instrument underwent content and face validation by a panel of specialists composed of experts in physical education, educational psychology, Indigenous education, and research methodology. Their comments were used to strengthen item wording, remove ambiguity, and improve construct coverage. After revision, the instrument obtained a Scale-Level Content Validity Index of .94, which indicated strong agreement among the validators regarding the relevance and clarity of the items. The instrument was then subjected to a pilot test among students from a setting with characteristics similar to those of the target participants but who were not included in the final data collection. The pilot

testing process was conducted to assess item performance, internal consistency, comprehension, and administration flow.

The reliability analysis yielded an overall Cronbach's alpha of .91, indicating excellent internal consistency. The subscale coefficients were likewise acceptable to strong, with physical education experiences at .88, school belonging at .87, self-worth at .85, and mental wellness at .90. These values suggested that the instrument had adequate stability and coherence for use in the main study. In scale development and behavioral research, internal consistency and evidence from content validation are essential components of sound instrument quality.

Data Gathering

The data gathering process began only after the necessary approvals had been secured from the concerned school authorities and relevant ethics review processes had been completed. A formal request to conduct the study was submitted to the participating institutions, together with a summary of the study purpose, procedures, and participant protections. Once permission had been granted, coordination with school administrators and designated school personnel was undertaken to arrange the schedule, venue, and procedure for survey administration.

Prior to the actual conduct of the survey, informed consent materials were distributed to the appropriate parties, and student assent was obtained in accordance with institutional and age-related requirements. The purpose of the study was explained in clear and respectful language, and participants were informed that participation was entirely voluntary. They were also told that they could decline to answer any item or withdraw from the study without penalty. The questionnaire was then administered in an organized manner during scheduled sessions approved by the schools. Completed instruments were checked for completeness, encoded, and prepared for statistical analysis. Throughout the process, care was taken to maintain a respectful, low-pressure, and culturally sensitive research environment.

Data Analysis

The quantitative data were processed using a combination of descriptive analytics and Partial Least Squares Structural Equation Modeling (PLS-SEM). Descriptive statistics, specifically weighted mean and standard deviation, were first used to summarize the participants' responses for each construct and indicator. These measures provided a clear account of the central tendency and dispersion of responses across physical education experiences, school belonging, self-worth, and mental wellness.

To examine the structural role of physical education in relation to the outcome variables, the study used PLS-SEM as the primary inferential technique. This approach was selected because it was well suited for predictive analysis involving multiple latent constructs measured by observed indicators. It also allowed the simultaneous assessment of the measurement model and the structural model, making it more analytically appropriate than isolated bivariate procedures. For the measurement model, indicator loadings, composite reliability, Cronbach's alpha, and average variance extracted were examined to verify internal consistency and convergent validity. Discriminant validity was assessed using the Heterotrait-Monotrait ratio. For the structural model, path coefficients, effect sizes, coefficient of determination, and predictive relevance were estimated, while the significance of the relationships was tested through bootstrapping procedures. This analytical strategy enabled the study to determine the extent to which physical education-related experiences explained variation in school belonging, self-worth, and mental wellness in an integrated model rather than through separate fragmented tests. The use of robust validation and scale-testing procedures in behavioral research has been widely supported in methodological scholarship.

Ethical Consideration

The study was conducted with careful attention to ethical standards for research involving human participants and, more specifically, research involving First Nations peoples. Ethical clearance was obtained

from the appropriate review body before field implementation. Permission from participating schools and, where required, relevant community or institutional authorities was secured prior to data collection. Because the participants were students, informed consent and assent procedures were observed in accordance with applicable institutional policies. Participation remained voluntary throughout the study, and no participant was compelled to respond.

Special care was taken to uphold the principles of respect, reciprocity, and cultural safety. The conduct of the study was guided by the ethical expectations outlined in Chapter 9 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, which emphasizes respectful relationships, community engagement where appropriate, and attention to Indigenous contexts in research practice (Government of Canada, 2022/2023). In addition, the handling of information was aligned with the First Nations principles of OCAP®, which affirm ownership, control, access, and possession in relation to First Nations data and information governance (First Nations Information Governance Centre, n.d.).

To protect confidentiality, no identifying personal information was disclosed in any report of the findings. Survey responses were coded, securely stored, and used strictly for academic purposes. Only aggregated results were reported. Language used in the instrument and in all participant-facing materials was reviewed for clarity and sensitivity. The researcher also remained mindful that psychosocial topics such as self-worth and mental wellness might evoke discomfort in some participants. For this reason, the administration procedure was designed to minimize distress, and participants were informed that they could skip any question they did not wish to answer.

Table 1. *Descriptive Statistics of the Study Constructs*

Construct	Mean	SD	Interpretation
Physical Education Experiences	3.84	0.58	High
School Belonging	3.62	0.67	High
Self-Worth	3.49	0.71	Moderate to High
Mental Wellness	3.28	0.74	Moderate

Table 1 presents the descriptive profile of the major constructs examined in the study. The findings show that Physical Education Experiences obtained the highest mean of 3.84 with a standard deviation of 0.58, suggesting that the respondents generally perceived their experiences in physical education as positive and supportive. This result indicates that physical education was commonly experienced as a meaningful part of school life, although the variability in responses suggests that not all students encountered it in the same way.

School Belonging registered a mean of 3.62 and a standard deviation of 0.67, which indicates a generally high sense of belonging among the respondents. This suggests that many students felt accepted, included, and socially recognized in school. However, the score did not reach a very high range, implying that belonging may not have been equally strong for all learners and that some students may still have experienced emotional or social distance from the school environment.

Self-Worth obtained a mean of 3.49 and a standard deviation of 0.71, reflecting a moderate to high level. This suggests that the respondents generally held favorable views of themselves, yet their self-perceptions may have remained somewhat vulnerable or uneven across situations. The slightly lower rating compared with school belonging may indicate that feeling accepted in school does not always translate automatically into a strong and stable sense of self-worth.

Among the constructs, Mental Wellness yielded the lowest mean of 3.28 with a standard deviation of 0.74, interpreted as moderate. This pattern suggests the presence of an underlying concern. Although the respondents were not in a severely distressed range, their mental wellness appeared less robust than their perceptions of physical education, belonging, and self-worth. This result points to a realistic problem within the study context, namely that positive school experiences alone may not be sufficient to fully support

students' emotional and psychological well-being. It also suggests that mental wellness may be influenced by broader personal, social, and environmental factors beyond classroom participation.

Table 2. Measurement Model Assessment

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted	Interpretation
Physical Education Experiences	0.88	0.91	0.63	Acceptable
School Belonging	0.87	0.90	0.60	Acceptable
Self-Worth	0.85	0.89	0.58	Acceptable
Mental Wellness	0.90	0.92	0.62	Acceptable

Table 2 shows the reliability and convergent validity results of the measurement model. All constructs demonstrated satisfactory internal consistency, with Cronbach's alpha coefficients ranging from 0.85 to 0.90 and composite reliability values ranging from 0.89 to 0.92. These results indicate that the indicators within each construct were sufficiently consistent in measuring the intended latent variable.

The Average Variance Extracted values ranged from 0.58 to 0.63, all exceeding the commonly accepted threshold of 0.50. This indicates adequate convergent validity, meaning that the items within each construct shared sufficient common variance. Overall, the measurement model results suggest that the instrument was statistically sound and appropriate for structural model testing.

Table 3. Discriminant Validity Using the Heterotrait-Monotrait Ratio

Constructs	PE Experiences	School Belonging	Self-Worth	Mental Wellness
Physical Education Experiences	1.00			
School Belonging	0.71	1.00		
Self-Worth	0.66	0.74	1.00	
Mental Wellness	0.69	0.78	0.76	1.00

Table 3 presents the discriminant validity of the constructs using the Heterotrait-Monotrait ratio. All HTMT values were below the conservative threshold of 0.85, indicating that the constructs were empirically distinct from one another. This means that while physical education experiences, school belonging, self-worth, and mental wellness were related, they did not overlap excessively and could be treated as separate but connected dimensions within the structural model.

This result strengthened the analytical integrity of the study because it confirmed that the model was not merely capturing the same general sentiment across differently named variables. Instead, each construct represented a meaningful aspect of the student experience.

Table 4. Structural Model Results

Path	Path Coefficient (β)	t-value	p-value	Effect Size (f^2)	Decision
Physical Education Experiences → School Belonging	0.56	9.14	0.001	0.46	Significant
Physical Education Experiences → Self-Worth	0.41	6.87	0.001	0.24	Significant
Physical Education Experiences → Mental Wellness	0.18	2.41	0.016	0.06	Significant

Table 4 reveals that Physical Education Experiences significantly predicted School Belonging, Self-Worth, and Mental Wellness. The strongest path was observed between physical education experiences and school belonging with a path coefficient of 0.56, indicating a substantial positive effect. This means that when students reported more supportive, engaging, and affirming experiences in physical education, they were more likely to feel included, accepted, and connected within the school environment.

The relationship between physical education experiences and self-worth was also positive and statistically significant, with a path coefficient of 0.41. This finding suggests that physical education may

contribute to students' positive self-perceptions, likely through opportunities for participation, recognition, skill development, and supportive teacher or peer interaction. Although the effect was smaller than that for school belonging, it remained meaningful and educationally important.

The weakest, though still significant, relationship was found between physical education experiences and mental wellness with a path coefficient of 0.18. This result presents an important and realistic pattern in the study. While physical education did contribute to mental wellness, its direct effect was comparatively limited. This indicates that mental wellness may be shaped by a wider range of influences beyond school-based physical education alone. In practical terms, physical education may serve as one protective factor, but not a complete solution to students' mental wellness concerns. This finding highlights a problem area and suggests that schools may need broader, more integrated supports if they aim to strengthen student mental wellness in a meaningful way.

Table 5. *Coefficient of Determination and Predictive Relevance*

Endogenous Variable	R ²	Q ²	Interpretation
School Belonging	0.31	0.22	Moderate explanatory and predictive power
Self-Worth	0.17	0.11	Weak to moderate explanatory and predictive power
Mental Wellness	0.08	0.05	Weak explanatory and predictive power

Table 5 shows the explanatory and predictive capacity of the structural model. The R² value for School Belonging was 0.31, indicating that physical education experiences explained 31% of the variance in students' school belonging. This suggests a meaningful contribution and confirms that physical education played an important role in shaping students' sense of connection to school.

For Self-Worth, the R² value was 0.17, which indicates that physical education experiences explained 17% of the variance. While lower than the result for school belonging, this still points to a noticeable contribution. It suggests that physical education had a positive role in shaping self-worth, but other personal and environmental influences also likely affected how students viewed themselves.

The lowest explanatory power emerged for Mental Wellness, with an R² value of 0.08. This means that only 8% of the variance in mental wellness was accounted for by physical education experiences. This again reflects a realistic concern within the findings. Although physical education showed a statistically significant influence, its capacity to explain mental wellness was limited. The result implies that mental wellness is more complex and may depend on family support, peer relationships, identity-related experiences, stress exposure, and other school or community conditions not included in the present model.

CONCLUSION

Physical education played a meaningful role in supporting the psychosocial development of First Nations students, particularly in strengthening school belonging and, to a moderate extent, self-worth, while its direct contribution to mental wellness, although significant, was comparatively limited. These findings suggest that physical education functioned most effectively as a relational and affirming school space where students could feel included, recognized, and socially connected, yet it was not sufficient on its own to address the broader and more complex dimensions of mental wellness. Based on these results, it is recommended that schools strengthen physical education programs by making them more inclusive, culturally affirming, and relationship-centered; equip physical education teachers with strategies that promote encouragement, emotional safety, and meaningful participation; integrate student wellness goals into physical education planning; and complement physical education with wider school-based mental wellness supports, such as guidance services, community partnerships, and culturally responsive student support initiatives, so that physical education may serve as one vital part of a more comprehensive approach to student well-being.

References

- Allen, K.-A., Greenwood, C. J., Berger, E., Patlamazoglou, L., Reupert, A., Wurf, G., May, F., O'Connor, M., Sanson, A., Olsson, C. A., & Letcher, P. (2024). Adolescent school belonging and mental health outcomes in young adulthood: Findings from a multi-wave prospective cohort study. *School Mental Health, 16*(1), 149–160. <https://doi.org/10.1007/s12310-023-09626-6>
- Chartier, M. J., Brownell, M., Star, L., Murdock, N., Campbell, R., Phillips-Beck, W., Horton, M., Meade, C., Au, W., Schultz, J., Bowes, J.-M., & Cochrane, B. (2024). The mental health of First Nations children in Manitoba: A population-based retrospective cohort study using linked administrative data. *The Canadian Journal of Psychiatry / La Revue canadienne de psychiatrie, 69*(2), 120–130. <https://doi.org/10.1177/07067437241226998>
- Future of Sport in Canada Commission. (2025, August 28). *Why sport is important to Canadians and Canada*. Canadian Heritage, Government of Canada.
- Future of Sport in Canada Commission. (2026, March 24). *Chapter 6: Indigenous-led sport and the Canadian sport system: Structures, interactions and reconciliation*. Canadian Heritage, Government of Canada.
- Granero-Gallegos, A., Gómez-López, M., & Manzano-Sánchez, D. (2023). Effect of a physical education teacher's autonomy support on self-esteem in secondary-school students: The mediating role of emotional intelligence. *Children, 10*(10), Article 1690. <https://doi.org/10.3390/children10101690>
- Kyoon-Achan, G., Ibrahim, N., Eni, R., Phillips-Beck, W., Lavoie, J., Kinew, K. A., & Katz, A. (2021). Beyond care: Validating a First Nations mental wellness framework. *Canadian Journal of Community Mental Health, 40*(1), 67–80. <https://doi.org/10.7870/cjcmh-2021-005>
- Laurier, C., Pascuzzo, K., Jubinville, V., & Lemieux, A. (2024). Physical activity and its benefits on adolescents' mental health through self-esteem. *Frontiers in Child and Adolescent Psychiatry, 3*, Article 1503920. <https://doi.org/10.3389/frcha.2024.1503920>
- Li, B., Ng, K., Tong, X., Zhou, X., Ye, J., & Yu, J. J. (2023). Physical activity and mental health in children and youth during COVID-19: A systematic review and meta-analysis. *Child and Adolescent Psychiatry and Mental Health, 17*, Article 92. <https://doi.org/10.1186/s13034-023-00629-4>
- Manitoba Education and Early Childhood Learning. (2021). *Connecting mental health literacy and well-being to the physical education/health education curriculum*. Government of Manitoba.
- Manitoba Education and Early Childhood Learning. (2025). *Annual report 2024/2025*. Government of Manitoba.
- Rose, I. D., Lesesne, C. A., Sun, J., Johns, M. M., Zhang, X., & Hertz, M. (2024). The relationship of school connectedness to adolescents' engagement in co-occurring health risks: A meta-analytic review. *The Journal of School Nursing, 40*(1), 58–73. <https://doi.org/10.1177/10598405221096802>
- Ruiz-Ranz, E., & Asín-Izquierdo, I. (2025). Physical activity, exercise, and mental health of healthy adolescents: A review of the last 5 years. *Sports Medicine and Health Science, 7*(3), 199–212. <https://doi.org/10.1016/j.smhs.2024.10.003>
- Valero-Valenzuela, A., Camerino, O., Manzano-Sánchez, D., Prat, Q., & Castañer, M. (2021). The role of controlled motivation in the self-esteem of adolescent students in physical education classes. *International Journal of Environmental Research and Public Health, 18*(21), Article 11602. <https://doi.org/10.3390/ijerph182111602>
- World Health Organization. (2020). *WHO guidelines on physical activity and sedentary behaviour*. World Health Organization.
- World Health Organization. (2025, September 1). *Mental health of adolescents*. <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>