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## **Role of Physical Education Curriculum and its Effectiveness for Physical, Mental, and Social Well-being at School Level in Punjab Province**

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### **ABSTRACT**

The study aimed to evaluate the impact of the physical education curriculum on students' physical fitness and overall well-being, specifically examining its role in fostering physical, mental, and social wellbeing among high and higher secondary school students. With a focus on the province of Punjab, Pakistan, the research sought to address whether the current curriculum effectively promotes holistic student development. The purpose of this study was to significantly of the physical education curriculum on the physical fitness of students. And to find out and effective role of the physical education curriculum in school students' physical, mental, and social well-being to improve physical fitness. The population was 36 districts divided in 9 divisions of the province of Punjab which also called the Boards of Intermediate and Secondary Education (BISE). From these 9 boards/ divisions there were 3 divisions/boards selected for pilot study resulting in 1,694 participants from higher secondary and high schools have selected by convenience sampling. The researcher himself developed a questionnaire for the students of this subject to seek their opinions on the role of physical education curriculum and its effectiveness for physical, mental, and social well-being. A five-point Likert scale questionnaire was used for data collection. The following variables were considered in the research study: Physical (15 statements), Mental (15 statements), and Social Well-being (15 statements). Data were examined using proper statistical procedures (descriptive and inferential) to obtain authentic results. Data used for analysis was divided into qualitative and quantitative divisions. The data collected was analyzed with descriptive statistics. The results are calculated by using SPSS tools. The role of physical education curriculum and its effectiveness for physical, mental, and social well-being. The light of findings at this stage of the study revealed that the majority of participants believed that R.P.E.C.A.I.E.F.P.M.S.W.B at School Level in Punjab Province. The application of two-factor variance analysis gave the possibility to determine that the curriculum-based

physical, mental and social well-being was favourable for the development of good fitness school students, whereas physical activity was more suitable for the development of physical, and mental. The practical significance of the study lies in the fact that statistical data processing used by the authors of this research, will be helpful for teachers to verify the effectiveness of the existing curriculum in real-time and to improve student sports achievements. Some strong recommendations were also written on the basis of findings. Hence, it is concluded that the Role of Physical Education Curriculum and its Effectiveness for Physical, Mental, and Social Well-being. It has promoted Physical activities among school boys and girls; and it has shown an increased prevalence of Physically, mental, and social well-being among them.

**Key Words:** Secondary School, Students, Physical, Mental, Social well-being, Province, Punjab.

## **Introduction**

The word curriculum has been derived from the Latin language “Currere” which means “to run”. Originally, in Latin, a curriculum was the course over which a race was run; hence the term started using for the whole. A curriculum is a plan of teaching, learning process that teacher and student are supposed to follow. The curriculum of any discipline is based on some specific objectives, learning outcomes, scheme of studies, teaching methods and materials.

The word physical refers to the body. It is often used in reference to various bodily characteristics such as physical strength, physical development, physical health and physical appearance. It refers to the body as contrasted to the mind. Therefore, when the word education is added to the word physical, thus forming the phrase physical education, it refers to the process of education that concerns activities which develops and maintain the human body.

The physical education curriculum, consist of all the situation that are consciously selected and organized for the purpose of developing the personality of the pupils by new insight, sense of value, skills or abilities. Its function is to stimulate experience which will result in desirable growth and development of appropriate physical, social and psychological outcomes. Curriculum plays vital role in developing sense of knowledge and skill in the students. Well, directed and goal-oriented curriculum has positive effects on the professional achievements of the students.

Curriculum must consist essentially of disciplined study of five areas:1) command over mother tongue, systematic study of grammar, literature, and writing.2) mathematics 3) science 4) history and 5) linguistics (Franco et al., 2019). Curriculum is the “educational program of the school” divided into four basic elements: 1) program of studies, 2) program of experiences, 3) program of service, and 4) hidden curriculum. It is a sequence of potential experiences of experts which are set up in the institutes for the purpose of disciplining children and individuals. (Casey & Quennerstedt, 2020).

Curriculum is the offering of socially valued knowledge, skills, experience and attitudes to students through arrangements in various styles at school, college, or university (Gul & Khilji, 2021). It is the series of things which children and youth have to do and experience to develop abilities to overcome the affairs of life (D'Elia, 2020; Pangrazi & Beighle, 2019). It is beneficial in framing stronger bonds between peers as well as strengthen healthy class dynamic in institutes (Pangrazi & Beighle, 2019).

Physical activity, exercise and sport promote positive body image in adults, especially in women and girls. In present technological era of social media and societal pressure good body image and fitness has become one of the requirements of successful life. Sports and physical education compel children and adults to improve self-discipline. This self-control aspect of their life will help a lot in controlling their emotions and remain acceptable member of the community to remain more self-motivated for future responsibilities (González-Valero et al., 2020).

It can be called a master plan for selection of content material and organizing learning experiences to positively change and develop individuals' behaviours, knowledge, experience and vision (Opstoel et al., 2020). Physical Education develops students' competence, abilities, behaviour and confidence to take part in a higher range of physical activities which in greater sense become an essential part of their lives, both within and outside of school (D'Elia, 2020).

A high-quality physical education curriculum enables the students and participants to enjoy and succeed in various type of physical activity. Wide range of skills and the ability is developed among them to imply tactics, strategies, plan of actions and ideas for better perform. It enables them to think positively about what they are doing, to analyze the situation promptly and take accurate decisions. They always search for ways and means to improve their performance. Resultantly confidence, healthy, active lifestyles are attained due to taking part in different physical activities and perfect physical education curriculum (Colombo-Dougovito, & Lee, 2020).

Adults and individuals who play sports are in better position to concentrate and focus on events, which is its reflection on their lives (Menke, & Germany, 2019). Regular participation in physical activities, sport and exercise is considered essential to fight against childhood obesity. It is established fact that many health problems are associated with obesity and it is just possible to get rid of it through regular physical activity participation and it would definitely lead towards a healthy, safe, sound and active lifestyle. Positive regular exercise habits have long lasting positive effects if implemented in childhood and adolescence and continued till adulthood to senile age (Maugeri et al., 2020).

Physical activities and sport help children, youth and individuals to develop and improve their confidence level, which is positive aspect of their life. It will have impact on their personal relationships and ability to integrate promptly and chose friends and think positively about their future commitments (Hygen et al., 2022). Sport and physical activities develop motor skills of children and adults, strengthen muscles and improve cognitive capabilities.

Developed motor skills make children to adept at handwriting, balancing, fitness, and coordination. Improved positive behavior is observed in individuals who regularly participate in physical activities (Burns et al., 2022).

Physical education curriculum activity directly affects the cognitive processes, excitation and increased secretion of neuropeptides increase the child's self-esteem and increased his/her mental activity at school (Vaquero-Solís, 2021). The child should be able to organize his/her independent physical activity in order to take responsibility for his/her own learning (Sh & Ruzimbaev, 2021). In order to implement this approach, the school should provide an expanded version of physical education curriculum activity (Gray et al., 2022). Physical education curriculum enhances schoolchildren confidence and motivation thinking (Nazirun & Candra, 2021). The majority physical education curricula in secondary schools are ineffective but need to be effective curriculum and ensure the achievement of educational goals.

Youth of the nation supposed to be the life of the nation, healthy nation are developed with healthy youth. The above mentioned achievement are impossible without proper involvement of individuals in sports activities. Participation in sports can help individual to develop their physical, cognitive and social aspects (Li & Shao, 2022). Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. The health of all people is fundamental to the attainment of peace and security and is dependent on the fullest co-operation of individuals and States. The achievement of any State in the promotion and protection of health is of value to all. Unequal development in different countries in the promotion of health and control of diseases, especially communicable disease, is a common danger. Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development. The extension to all people of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health. Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.

Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures. Unfortunately, in our homeland Pakistan Physical Education and its curriculum is not taught nor implemented in its true and real sense. In most of Government High schools there is no real concept of physical education nor sports at secondary level and same is the situation of conduct of sports competitions on regular basis for sake of talent hunt, physical, social, intellectual or spiritual development. In Pakistan the recent prevailing situation of higher rate of disease, obesity and other health related problems, researcher intended to check the effectiveness level of Physical Education curriculum with its effects on developing physical, mental, and social wellbeing fitness level of students opting for subject at various levels in educational institutes.

## **Statement of the Problem**

The youth of the nation is supposed to be the life of the nation, healthy nations are developed with healthy youth. Presently physical education as a discipline has been introduced at the school level in Pakistan. The parents, students, and society are lacking in showing interest in selecting this subject. Researcher keeping in view the lesser interest of the community has decided to work on this important issue to make it an awareness and motivation for the people. Male and female students of the Secondary Schools of Punjab province to study the “Role of Physical Education Curriculum and its Effectiveness for Physical, Mental, and Social Well-being at School Level in Punjab Province”, it has contributed a lot in the promotion of discipline and its positive image in the society.

## **Objectives of the Study**

- I. To assess the relationship between physical Education curriculum and the Physical well-being of secondary school students.
- II. To determine the relationship between physical Education curriculum and the Mental well-being of secondary school students.
- III. To evaluate the relationship between physical Education curriculum and the Social well-being of secondary school students.

## **Hypotheses of the Study**

**H-I** There is a significant relationship between physical education curriculum and physical well-being of secondary school students.

**H-II** There is a notable relationship between physical education curriculum and mental well-being of secondary school students.

**H-III** There is a considerable relationship between physical education curriculum and social well-being of secondary school students.

## **Research Methodology**

The researcher has used the Descriptive Research method for this study which was conducted with the help of a survey and self-administered questionnaire (Botagariyev et al., 2019 Solmon, 2020) addressing the Role of Physical Education Curriculum and its Effectiveness for Physical, Mental, and Social Well-being at the School Level in Punjab Province. The population for the current research consisted of Male and Female students enrolled in Government Secondary Schools of Punjab. It is pertinent to mention that only those students enrolled in the discipline of health and physical Education at the secondary level were considered as the population for the current study.

## **Sample of Study**

Three Boards of Intermediate and Secondary Education from Punjab province was included for pilot study (BISE Lahore, BISE Sahiwal and BISE Multan) Inclusion of district from each Division (3 Division = 11 Districts) were included. 220 Schools, (11x20=220 Schools) 10 male and 10 female from each District.8 students from each male school and 6 students from each female school who enrolled in the subject of Health and Physical Education. Hence for pilot study N=1694 respondents were taken from the whole population as a sample.

### Inclusion Criteria

Male and Female Student of Punjab province who enrolled in the subject of Health and Physical Education.

### Exclusion Criteria

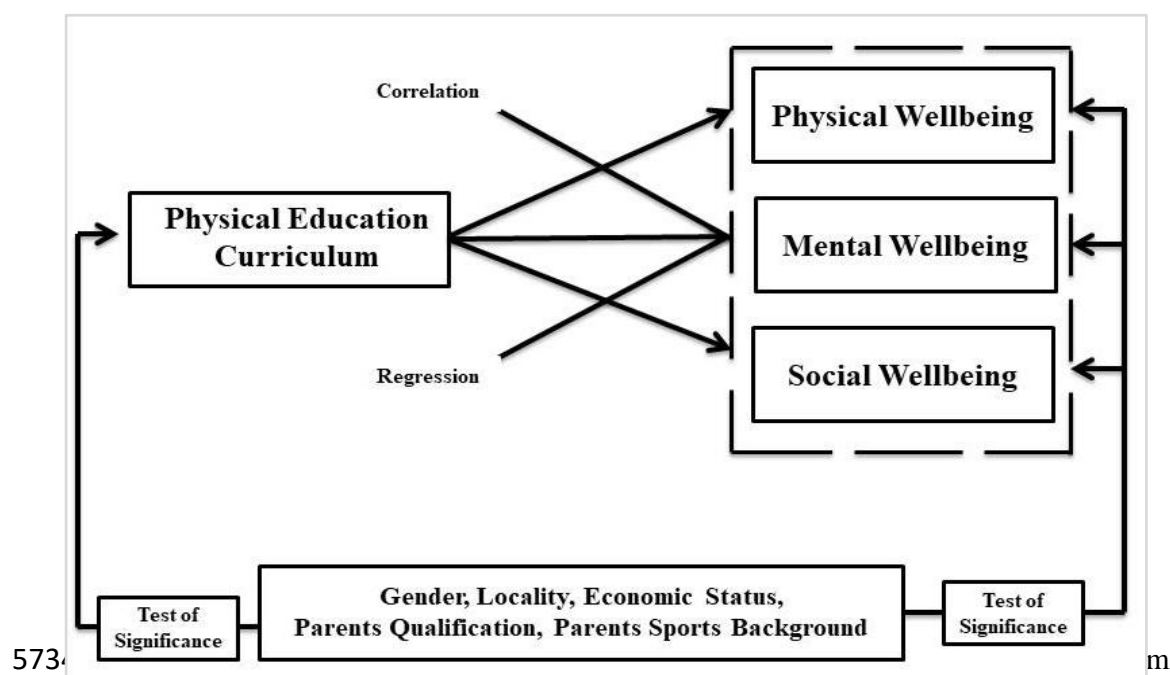
Participant were excluded who didn't enrol in the subject of Health and Physical Education

### Tools of Data Collection

Self-administered questionnaire (Botagariyev et al., 2019 Solmon, 2020), is used which is comprises of 45 statements (15 statements on each section Physical Well-being, Mental Well-being, and Social Well-being) has been utilized to collect data. The statement was rated on five-point Likert scale ranging from Strongly disagree (SDA), Disagree (DA), Un decided (UD), Agreed (A) and to Strongly agreed (SA).

The Survey was conducted to fill the questionnaire by the participants. The researcher explains all the questions statement to the respondents. The questionnaire is also translated in urdu for better understanding the question statements for the respondents. The students male and female took approximately 40 minutes to fill the questionnaire.

### Conceptual Framework



This conceptual framework illustrates how a well-structured physical education curriculum can enhance students' physical, mental, and social wellbeing. It suggests that engaging in physical education positively impacts physical well-being, reduces stress, improves mood, and fosters social skills like teamwork and communication. The framework also considers external factors, including gender, socioeconomic status, and parental background, which may influence these effects. By examining these relationships through correlation and regression analyses, the framework underscores the importance of physical education in promoting holistic student development, offering insights for educators and policymakers to optimize physical education programs.

## **Delimitation**

This study is delimited to male and female schools in the province of Punjab at Secondary level for those students who enrolled in the discipline of health and physical Education.

## **Results and Discussions**

As we delve into the results of this study, the following analyses provide a comprehensive understanding of how the physical education curriculum influences various dimensions of student well-being in Punjab's secondary schools. The data gathered offers insight into demographic trends, the reliability of the well-being factors assessed, and the strength of relationships between physical, mental, and social well-being outcomes. Through detailed statistical examination, the results highlight both the overall impact of physical education and the variations observed across gender and education levels, setting the stage for a meaningful discussion on the curriculum's effectiveness in fostering holistic health among students.

Five-Point Likert scale has been used to analyze the data. The statement was rated 5 Likert scale ranging from Strongly disagree (SDA), Disagree (DA), Un decided (UD), Agreed (A) and to Strongly agreed (SA).

Further SPSS version 2.8 was utilized simple descriptive statistics such as central tendency and measurement of dispersion e.g. Frequency, mean and percentage were used to analyze the item-wise analysis, at this stage of the study.

The sample for pilot study is N=1694 respondents from male and female Higher secondary and High schools. The researcher included 24 schools from each district were included for the study (10 male and 10 female schools) to make it representative of gender quantified. After that, a sample of 8 students from each male school and 6 students from each female school was included and participated in the study. Male n=968 Female n =726 N=1694.

At this stage Pilot study was conducted to evaluate reliability of the three factors contributing to "Role of Physical Education Curriculum and its Effectiveness for Physical, Mental, and Social Well-being at School Level in Punjab Province" compiled in 45 items of each section

of the questionnaire. Sixteen hundred ninety-four (1694) both male n=968 and female n=726 students from Higher secondary schools and high schools of Punjab participate in the preliminary study. The information on questionnaire reliability was obtained with the help of second application of same questionnaire. In this regard, test re-test method to evaluate reliability of the questionnaire. The analyzed data during the pilot study was focused on internal consistency results that is Cronbach's Alpha, intra-item correlation. Item scale was measured using Cronbach's alpha, and the standardized alpha for the total scale was 0.921 for all 45 items. The inter-items correlation was good for all the three factors. For physical well-being 0.882, for mental well being 0.878 and for social well-being 0.832.

Table 1 presents a breakdown of students (N=1694) by division, school level, and gender, highlighting the distribution across three divisions: Lahore, Multan, and Sahiwal. It details the number of higher secondary and high school students, separated by gender, with totals for each category. Lahore has the highest representation (770 students, 45.5%), followed by Multan and Sahiwal (each with 462 students, 27.3%). This demographic overview ensures a balanced sample distribution across regions and gender.

**Table 2: Age wise Distribution of Students**

Age	Frequency	Percent	Valid Percent	Cumulative Percent
13.00	274	16.2	16.2	16.2
14.00	586	34.6	34.6	50.8
15.00	499	29.5	29.5	80.2
16.00	128	7.6	7.6	87.8

**Table 1: Demographic Characteristics of Students (N=1694)**

Sr.	Division	Higher Sec. Schools			High Schools			Male Total	Female Total	Grand Total	%age
		Male	Female	Total	Male	Female	Total				
1	LAHORE	120	90	210	320	240	560	440	330	770	45.5%
2	MULTAN	72	54	126	192	144	336	264	198	462	27.3%
3	SAHIWAL	72	54	126	192	144	336	264	198	462	27.3%
Total		264	198	462	704	528	1232	968	726	1694	100%
		17.00	149	8.8	8.8	96.6					
		18.00	58	3.4	3.4	100.0					
Total			1694	100.0	100.0						

The age-wise distribution of students shows the frequency and percentage of students across various age groups, from 13 to 18 years old. Ages 14 and 15 have the highest representation (34.6% and 29.5%, respectively), while the older and younger age groups are



less common, showing a broad but youth centered sample. Cumulative percentages provide insight into age-related coverage, with 80.2% of students aged between 13 and 15 years.

**Table 3: Gender wise Distribution of Students**

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	968	57.1	57.1	57.1
Female	726	42.9	42.9	100.0
Total	1694	100.0	100.0	

This table illustrates the gender composition within the sample, showing that 57.1% (968) are male, and 42.9% (726) are female. The percentage distribution reflects a slightly higher representation of male students, yet maintains a meaningful balance, allowing for gender-comparative insights in the study on the physical education curriculum's effects.

**Table 4: Education wise Distribution of Students**

Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
Secondary	1232	72.7	72.7	72.7
Higher Secondary	462	27.3	27.3	100.0
Total	1694	100.0	100.0	

Education levels among the participants are depicted here, with secondary school students comprising 72.7% (1232) of the sample, and higher secondary students making up 27.3% (462). This split highlights the predominance of younger students in the study, which may impact the observed effectiveness of physical education as it pertains to foundational and developmental stages in student education.

**Table 5: Residence wise Distribution of Students**

Division	Frequency	Percent	Valid Percent	Cumulative Percent
Lahore	770	45.5	45.5	45.5
Multan	462	27.3	27.3	72.7
Sahiwal	462	27.3	27.3	100.0
Total	1694	100.0	100.0	

This table categorizes students based on their district of residence, showing that 45.5% are from Lahore, while both Multan and Sahiwal contribute 27.3% each to the sample. The distribution is proportionally spread across these areas, ensuring that the findings reflect a diverse geographic sample within Punjab province and allowing for district-based analysis of curriculum impact.

## Factor Analysis

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.956
Bartlett's Test of Sphericity	Approx. Chi-Square	263205.281
	Df	990

### Reliability of Physical Wellbeing

Reliability Statistics	
Cronbach's Alpha	No. of Items
.985	15

### Mental of Physical Wellbeing

Reliability Statistics	
Cronbach's Alpha	No. of Items
.988	15

### Reliability of Social Wellbeing

Reliability Statistics	
Cronbach's Alpha	No. of Items
.993	15

The factor analysis in this study includes the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test to evaluate sampling adequacy and the suitability of factor analysis for the dataset. The high KMO value (0.956) suggests that the sample is suitable for factor analysis, while the significant Bartlett's Test ( $p < 0.001$ ) confirms that the variables are interrelated enough to proceed with the analysis. Reliability statistics were calculated for each factor contributing to well-being (physical, mental, and social), showing high Cronbach's Alpha values for physical (0.985), mental (0.988), and social well-being (0.993). These values indicate excellent internal consistency for the questionnaire items, supporting the reliability of the data collected. This analysis underscores that the factors used in the study effectively represent the dimensions of well-being as perceived by students in relation to the physical education curriculum.

### Correlation Analysis

		Correlations		
Correlations		Physical Wellbeing Mean	Mental Wellbeing Mean	Social Wellbeing Mean
Physical Wellbeing Mean	Pearson Correlation Sig. (2-tailed)	1	.988**	.968**
Mental Wellbeing Mean	N	1694	1694	1694
Social Wellbeing Mean	Pearson Correlation	.988**	1	.974**

Wellbeing	Sig. (2-tailed)	.000		.000
Mean	N	1694	1694	1694
Social	Pearson Correlation	.968**	.974**	1
Wellbeing	Sig. (2-tailed)	.000	.000	
Mean	N	1694	1694	1694

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis examines the relationships between physical, mental, and social well-being among students. Pearson correlation coefficients reveal strong positive correlations between all three factors: physical and mental wellbeing ( $r = 0.988$ ), physical wellbeing and social wellbeing ( $r = 0.968$ ), and mental wellbeing and social wellbeing ( $r = 0.974$ ), all of which are statistically significant ( $p < 0.001$ ). These strong correlations suggest that improvements in one area of wellbeing (such as physical wellbeing) are likely to be associated with gains in mental and social wellbeing. This reinforces the interconnected impact of the physical education curriculum on multiple facets of student health, implying that a well-rounded physical education program can holistically enhance students' overall wellbeing.

### Test of Significance

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Physical Wellbeing Mean	Male	968	3.9611	.86822	.02791
	Female	726	4.2209	.83590	.03102
Mental Wellbeing Mean	Male	968	3.8920	.82531	.02653
	Female	726	4.1151	.84250	.03127
Social Wellbeing Mean	Male	968	3.8667	.82556	.02653
	Female	726	4.3853	1.00350	.03724

The **Test of Significance** table provides comparative statistics on physical, mental, and social well-being scores across gender and education level. For gender, the analysis shows that female students reported slightly higher mean scores in all three well-being areas (physical, mental, and social) compared to male students, indicating potentially greater perceived benefits of the physical education curriculum among female participants. Regarding education level, higher secondary students consistently scored higher across all well-being metrics than secondary students, suggesting that older or more advanced students may derive greater benefits from physical education. These differences, assessed through mean and standard deviation, provide insight into how the curriculum's impact may vary across demographic subgroups.

### Impact of Education Level on Physical, Mental, and Social Well-being

Group Statistics				
Education	N	Mean	Std. Deviation	Std. Error Mean

Physical	Secondary	1232	3.9044	.94302	.02687
Wellbeing Mean	Higher Secondary	462	4.5204	.29945	.01393
Mental	Secondary	1232	3.8263	.90768	.02586
Wellbeing Mean	Higher Secondary	462	4.4179	.36705	.01708
Social	Secondary	1232	3.9169	1.02296	.02914
Wellbeing Mean	Higher Secondary	462	4.5479	.41331	.01923

The table presents a breakdown of mean scores for physical, mental, and social well-being based on students' education levels (secondary vs. higher secondary). Higher secondary students report notably higher mean scores in all three areas compared to secondary students. Specifically, their mean scores for physical wellbeing (4.52 vs. 3.90), mental wellbeing (4.42 vs. 3.83), and social well-being (4.55 vs. 3.92) indicate that students in the higher education tier perceive greater benefits from the physical education curriculum. This suggests that as students progress academically, they may gain a deeper understanding or greater appreciation of the curriculum's role in supporting holistic wellbeing.

## Conclusion

Majority of male and female participants agreed that physical education is essential for maintaining good physical wellbeing. A significant majority of both male and female respondents strongly concurred that the curriculum effectively imparts knowledge about physical attributes like power, speed, and agility. Almost all participants, both male and female, strongly agreed that physical education has a positive impact on mental wellbeing, reducing stress and anxiety while promoting happiness and overall mental wellbeing. Both male and female participants largely endorsed the statement that physical activities foster teamwork, learning skills, and creativity. An overwhelming majority of both male and female participants concurred that the physical education curriculum serves as a vital tool for socialization. Nearly all participants, both male and female, strongly believed that physical education plays a vital role in developing overall personality and character.

Based on the results of this study, it can be concluded that the physical education curriculum significantly contributes to the physical, mental, and social well-being of students in Punjab province. Factor analysis confirms the reliability and internal consistency of the well-being dimensions assessed, highlighting that the curriculum effectively promotes a holistic approach to student health. Correlation analysis reveals strong positive relationships among physical, mental, and social well-being, emphasizing the interconnected benefits of physical education. Additionally, the curriculum's impact appears more pronounced among higher secondary students and female participants, suggesting that these groups may experience greater well-being improvements. Overall, these findings underscore the essential role of physical education in fostering comprehensive health and wellness in school-aged youth, making it a vital component of educational development.

## Suggestions

To build on these findings, future research should explore the physical education curriculum's impact across a more diverse range of schools and communities, including different regions and socio-economic backgrounds. Such studies can help determine whether the curriculum's benefits hold universally or if adjustments are needed to meet specific needs. Following students over time would also be valuable to understand the lasting effects of physical education on well-being as they move into adulthood. Additionally, incorporating students' and teachers' voices through interviews or focus groups could provide fresh perspectives, identifying strengths in the curriculum and areas for meaningful improvement. By continually refining the curriculum based on these insights, educators and policymakers can work together to ensure physical education supports every student's health journey, preparing them for a healthier future. Advanced statistical methods could further deepen our understanding of how different aspects of well-being are connected, paving the way for data-informed curriculum enhancements that make a tangible difference in students' lives.

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