

RESEARCH PAPER

Role of Physical Education for Mental Health at Secondary Level in Tehsil Sahiwal

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ABSTRACT

The aim of present study was to analyze the role and effects of physical education on cognitive and mental health development students of Tehsil Sahiwal. The study was quantitative in its nature and survey method was used. The population was 220 teachers (100 teachers from girls secondary schools and 120 teachers from boys secondary schools). The sample size of the study was 104 teachers (46 teachers from girls secondary school and 58 teachers from boys secondary schools) with the confidence interval 5 % and confidence level 95% that was determined by using software i.e; www.surveysystem.com. The sample size had been drawn through proportionate sampling technique and respondents were selected through simple random technique. Data were collected through questionnaire and analyzed by using statistical package for social sciences (SPSS). It was found that Cricket, football and badminton improve the mobility. It was concluded that block games promote thinking skills, running improve the voluntary control and stretching reduce the stress were the effects on basic motor skills for mental development. It was recommended that for the development of student's cognitive abilities educational institutions should focus on the arranging of curricular and extra-curricular activities.

Keywords: Role, Physical Education, Mental Health, Psychological Situation, Academic Achievements

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INTRODUCTION

Mental health is the state of wellbeing that able the human beings to realize and use their own abilities at right time. Mental health is the part of human personality because through these human beings can distinguish between several things (Conor, 2021). Without adequate mental development students cannot perform well in educational activities. For the awareness of mental health and its relation to the physical health the subject of physical education is being taught in the educational institutes (Coccaet al., 2020). Physical education is particularly related to the physical activities for maintaining personal health that efforts surely prevent them from numerous diseases (Elbe et al., 2019).



Teaching of physical education in schools is considered the essential part of student life as it provides the basic path for staying healthy. Now it becomes necessary to understand the importance of staying healthy because healthy body increase the mental health (Alghadir et al., 2016). The knowledge and information related to physical education defines the activities that improve the sustainability of the health of individuals (Lubans et al., 2016).

LITERATURE REVIEW

This section is dedicated to the evaluation of correlated literatures existing on the diverse features of this study theme. It judgmentally assesses the literatures finding out the gaps in current knowledge, also finding out in what manner it is pertinent to current study. This section provides review of books, journals, published and unpublished literature, as well as official reports, research article as well as online electronic sources. The method of literature review aided the scholar justifying the necessity to conduct inquiry on the specific subject. Alphonse et al. (2010) demonstrated the results of African educational institutes. The researcher has conducted the research to find out the impact of physical education on the quick learning and understanding ability of students. He said that 67 % students spend their time in parks and play ground, 24 % waste their time in using cell phones and 10 % students also spend their time in staying home. Fedewa and Ahn (2011) suggested that success is the result of persistence physical and mental growth and persistence comes when students have health security. Good mental and physical health provide security to students that able them just to focus on their study and develop their academic success. Bruce (2011) shows that there is significant negative relation among the negative thinking and less participation of students for learning physical education as a subject. The result showed that these students become the victim of some ill-mannered and negative activities in society. Bastos (2011) explored that these students know everything about the importance of physical education and its effects on the development of mind set but they ignore these activities due to the availability of other resources in the life. Their teachers reported that they have less class performance due to obesity. Kohl (2013) analyzed the knowledge and behavior of high school students in Nairobi City of Kenya. Dwyer et al. (2013) performed a research among students of age ranging from 18–21years. Questionnaire was distributed among the students of science and arts subjects to find out their IQ level.

Ali et al. (2013) Physical education is also a basic component of curriculum that able the students to maintain personal health. Though this students can maintain the direct link with hygiene habits and thinking ability. Monterio (2013) physical education rise the students with the clarification of new educational ideas. In the long period it even plans the future of students by absorption of healthy activities. Bastoni et al. (2014) student can get knowledge about different hygienic activities that are considered key elements for choosing a healthy life with great mental development. Dongre (2015) explained that it becomes necessary to develop the interest of students for the learning of physical education so that new generation will become aware about the past events and present prevailing situations about the different healthy situations. Boyce and Pittet (2015) suggested that trained the students for doing physical activities by providing instructions about activities that will surely develop the collaboration among the students of all societies.

RESEARCH METHODOLOGY

The present study was deliberated in Institute of Agriculture Extension, Education and Rural Development, University of Agriculture Faisalabad, Punjab, Pakistan during 2020-2022. Multistage random sampling technique was used for current study.

Research area

The research was conducted in district Sahiwal, Punjab Pakistan while seeing the study objectives.



Population of the research

This study aims were to role of physical education for mental health at secondary level in tehsil Sahiwal. A list of total public schools was collected from Deputy District Education Officer (Sahiwal). After the attaining of list from department the schools were selected purposively for research. There are total 22 secondary schools (10 secondary schools for girls and 12 secondary school for boys) in Tehsil Sahiwal from these only six schools (3 secondary schools for girls and 3 secondary schools for boys) were selected through convenient sampling technique. The total teachers of these 6 schools were 220 (100 teachers from girls secondary

schools and 120 teachers from boys secondary schools) and these teachers were considered as the population of research.

Sample size

The sample size of the study was 104 teachers (46 teachers from girls secondary school and 58 teachers from boys schools) with the confidence interval 5 % and confidence level 95% that was determined by using software i.e; www.surveysystem.com.

School names	Population	Sample size
Government Girls High School Harapa	35	19
Government Girls High School Mirdad Mafi	32	12
Government Girls High School 100A/6R	33	13
Total teachers in girls' school	100	46
Government High School for boys Dadra Bala	40	18
Government High School for Mirdad Mafi	46	27
Government High School 100A/6R	34	13
Total teachers on boys' school	120	58

Sampling technique

The sample size of 104 teachers had been drawn through proportionate sampling technique and respondents were selected through simple random technique.

Nature of the research

The research was descriptive and survey type in nature, quantitative methods was used.

Data collection tool

For data collection a well-structured, comprehensive, valid and pre-tested questionnaire was used for data collection.

Description of the scale used in questionnaire

Five-point likert Scale (1= strongly disagree, 2= Disagree, 3= Undecided, 4= Agree, 5=strongly agree) was used considering the validity in term of physical education for mental health.

Analytical tool

The quantitative data were analyzed by using Statistical Package for Social Sciences (SPSS) to draw conclusions and recommendations.

RESULTS AND DISCUSSION

This chapter contains analysis and descriptions of the data. This chapter presents collected data along with its analysis. The purpose of the results and discussion is to present analysis and interpretation of data relating to the research problems under investigation, and to explain any new understanding or after taken findings into the consideration. Results and discussion define the attributes and reason about the research. This chapter also describes the demographic characteristics (age, education, gender, land belonging area, father education and mother education of the respondents (Neil, 2010). The sub-section highlighted the demographic attributes of the respondents.

Demographic Characteristics

Demographic characteristics are measured using the following parameters: social and economic characteristics include a number of factors and there are several indicators of each element; each society determines the social and economic character of the individual according to its principles. Therefore, in view of its importance, the economic and economic characteristics of the defendant's family were taken as an independent variable in the study.

Table 1 Distribution of the respondents according to their demographic attributes

Age		
21-25	52	50.0
26-30	21	20.2
31-35	11	10.6
Above 35	20	19.2
Qualification		
Graduation	11	10.6
Masters	82	78.8
Above	11	10.6
Residential Status		

Urban	41	39.4
Rural	52	50.0
Peri-urban	11	10.6
Total	104	100

Table 4.1 shows that half (50%) of the respondents were between 21-25 years old. Less than one fourth (20.1%) of the respondents were between 26-30 years old. One tenth (10.6%) of the respondents were between 31-35 years old. Less than one fourth (19.2%) of the respondents were above 35 years. The results of these two above research have the similarities with the findings of present research as the respondents of presents study was the teachers of high age and all these teachers were done their degree in physical education. Warnock and Wyon (2017) defined that the physical education is very important factor in the motivation of teachers for best performance as it increases strong association with each other and raises respect in the mind for others. As the age matters a lot in the adoption of physical educational activities. At the very young age students can perform any type of activity with full energy. It is depicting that one tenth (10.6%) of the respondents were graduated. Majority (78.8%) of the respondents were master and one tenth (10.6%) of the respondents were above master. Pandey (2014) concluded that professional qualification plays a role in education field as specialization in any subject make the teacher perfect in teaching. It is examined in a study that the teachers who have degree in physical education can teach every point of all physical moments, as compare the teachers who have no professional qualification, they have more chances to continue their development. The results of these two above research have the similarities, and some contradicts with the findings of present research as the respondents of presents study was the teachers have highly experienced teachers who have trained the students with good professional skills on the base of their academic qualification. It is representing that less than half (39.4%) of the respondents were belonged to urban areas. Half (50%) of the respondents were belonged to rural areas. One tenth (10.6%) of the respondents were belonged to peri urban. Kumar (2014) said that residence of teachers effects the teaching performance and willingness to attend the class. The balance between the school and living areas of total population should be reasonable. The allocation of schools for teachers should be nearby to their residence area so that teachers can be connected to the head and students the easily. The school location is very important aspect for reducing conflicts between teachers and head teachers because it reduces mental stress and physical tiredness in them. The physical aspect of school, type of buildings, location of home and school and means of transportation are considered the major reasons for low teachers' performance in the country.

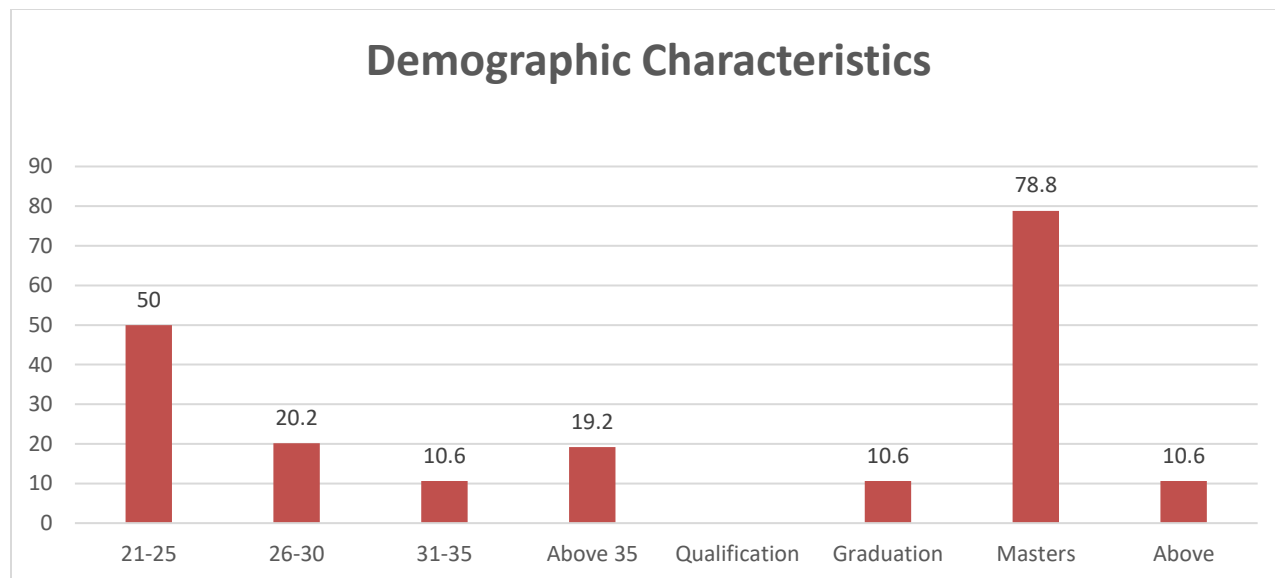


Fig 1. Graphical representation of the demographic characteristics

Table 2: Distribution of the respondents according to their effects of indoor and outdoor physical activities on mental development

Effects of indoor and outdoor physical activities on mental development	1	2	3	4	5	Mean ±Std. Dev.	Rank Order
Football enhances mobility	11.1	10.0	8.9	48.9	21.1	4.15 ±1.00261	1
Badminton improves the mental wellbeing	15.0	5.0	10.0	30.0	40.0	3.95 ±.95916	2
Cricket flourish socializing	18.8	11.1	13.3	50.0	6.7	3.82±1.06527	3
High Jump reduce the fear	10.0	10.0	30.0	30.0	20.0	3.79±1.04630	4
Running race alleviate obesity	20.0	10.0	8.9	11.1	50.0	3.70±1.15649	5
Climbing decrease nervousness	2.0	7.0	10.8	61.1	19.1	3.52±1.06084	6
Debates reduce headache	3.0	3.0	35.6	50.7	7.8	3.14±1.21014	7

Scale 1= strongly disagree, 2= Disagree, 3= Undecided, 4= Agree, 5=strongly agree

Table 2 described the study results of the effects of indoor and outdoor physical activities on mental development. According to the study results football enhance mobility with (4.15 ±1.00261) was at the rank no 1st order. It indicates that respondents undecided proceeding towards agree. Badminton improve the mental wellbeing with (3.95 ±.95916) was at the rank no 2nd order. It indicates that respondents undecided proceeding towards agree. Cricket flourish socializing with (3.82±1.06527) was at the rank no 3rd order. It indicates that respondents undecided proceeding towards agree High Jump reduce the fear with (3.79±1.04630) was at the rank no 4th order. It indicates that respondents undecided proceeding towards agree ., Running race alleviate obesity with (3.70± 1.15649) was at the rank no 5th order. It indicates that respondents undecided proceeding towards agree. Climbing decrease nervousness (3.52± 1.06084) was at the rank no 6th order. It indicates that respondents undecided proceeding towards agree Debates reduce headache with (3.14± 1.21014) was at the rank no 7th order. It indicates that respondents undecided proceeding towards agree. Physical education is particularly related to the physical activities for maintaining personal health that efforts surely prevent them from numerous diseases. Adoption of rules of physical education train the students for staying healthy by adopting healthy and cleanliness activities that directly increase their cognitive ability. To become the part of physical activities students, forget their stress and tensions that shows the signs of development for mental health and cognitive abilities. Mental and physical health is associated with a sense of accomplishment of mental and moral satisfaction (Elbe et al., 2019).

Table 3 Distribution of the respondents according to their effects on cognitive skill for mental development

Effects on cognitive skill for mental development	1	2	3	4	5	Mean ±Std. Dev.	Rank Order
Outdoor physical activities improve planning ability	15.2	5.0	2.0	27.8	50.0	4.26 ±.86159	1
Yoga improves the mental strength	12.2	1.0	17.9	33.3	35.6	4.11±.94825	2
Increase the memory	22.2	11.1	11.1	27.8	38.9	3.92±.94193	3
Alleviate the anxiety	4.0	11.1	4.0	50.0	30.9	3.86±.85964	4
Reduce the stress	3.0	11.1	30.3	35.6	20.0	3.82±.99944	5
Indoor physical actives nourish the ability of reasoning	15.6	16.7	12.2	5.6	55.6	3.75±.93989	6

Develop the attention span	2.0	11.1	2.0	40.4	38.9	3.70±.90178	7
Throwing and catching reduce negative mood	3.0	2.0	10.0	43.3	30.6	3.68±1.06365	8

Scale 1= strongly disagree, 2= Disagree, 3= Undecided, 4= Agree, 5=strongly agree

Table 3 described the study results of the electronic effects on cognitive skill for mental development. According to the study results outdoor physical activities improve planning ability with mean and standard deviation (4.26 ±.86159) at the rank no 1st order. It indicates that respondents agree proceeding strongly agree. Yoga improves the mental strength with mean and standard deviation (4.11±.94825) at the rank no 2nd order. It indicates that respondents agree proceeding towards strongly agree. Increase the memory with mean and standard deviation (3.92±.94193) at the rank no 3rd order. It indicates that respondents undecided proceeding towards agree. Alleviate the anxiety with mean and standard deviation (3.86±.85964) at the rank no 4th order. It indicates that respondents undecided proceeding towards agree. Reduce the stress with mean and standard deviation (3.82±.99944) at the rank no 5th order. It indicates that respondents undecided proceeding towards agree. Indoor physical actives nourish the ability of reasoning with mean and standard deviation (3.75±.93989) at the rank no 6th order. It indicates that respondents undecided proceeding towards agree. Develop the attention span with mean and standard deviation (3.70±.90178) at the rank no 7th order. It indicates that respondents undecided proceeding towards agree. Throwing and catching reduce negative mood with (3.68±1.06365) at the rank no 8th order. It indicates that respondents undecided proceeding towards agree. Avans(2017) said that physical education provides the main center of knowledge, information and development of creative learning as it make the pupils active which directly correlate the students to the development of cognitive and mental abilities. Teaching and learning of physical education lead the students towards self-directed learning that make differentiate between the project-based learning and practical based learning. Physical education makes the students conscious about the eating habits.

Table 4: Distribution of the respondents according to their effects of weightlifting physical activities on mental development

Statement	1	2	3	4	5	Mean ±Std. Dev.	Rank Order
Standing rows able them to keep calm	3.0	3.0	6.7	56.7	30.7	3.7864±.97669	1
Squats able them to think positively	2.0	3.0	20.0	45.0	30.0	3.7573±.95451	2
Bench step ups flourish the sense of try and try again	4.0	4.0	2.2	78.9	10.9	3.6990±.99838	3

Dump bell row alleviate the anxiety dis order. It indicates that respondents undecided proceeding towards agree	5.0	6.0	17.8	56.1	21.1	3.5534±.93649	4
Push up decrease the headache	3.0	3.0	35.6	50.7	7.8	3.3204±1.13943	5

Scale 1= strongly disagree, 2= Disagree, 3= Undecided, 4= Agree, 5=strongly agree

Table 4 described the study results of the standing rows able them to keep calm with mean and standard deviation (weighted score=390, mean value=3.78) was at the rank no 1st order. It indicates that respondents undecided proceeding towards agree. Squats able them to think positively with mean and standard deviation (weighted score=387, mean value=3.75) was at the rank no 2nd order. It indicates that respondents undecided proceeding towards agree. Bench step ups flourish the sense of try and try again with mean and standard deviation (weighted score=381, mean value=3.69) was at the rank no 3rd order. It indicates that respondents undecided proceeding towards agree. Dump bell row alleviate the anxiety dis order. It indicates that respondents undecided proceeding towards agree with mean and standard deviation (weighted score=366, mean value=3.55) was at the rank no 4th order. It indicates that respondents undecided proceeding towards agree. Push up decrease the headache with mean and standard deviation (weighted score=342, mean value=3.32) was at the rank no 5th order. It indicates that respondents undecided proceeding towards agree. Shamikaet al. (2015) expressed that physical activities and mental health are correlated with the psychological well-being or an absence of mental illness. It is the state of someone who is “functioning at a satisfactory level of emotional and behavioral adjustment all these states are linked with the practical of physical activities throughout the life. Mental health refers to cognitive, behavioral, and emotional well-being. Physical activities is a state of well-being where a person can realize his or her abilities to cope with normal stresses of life and work productivity. Physical activities and mental health connect each states of people. Physical activities help to build sense of self-worth and also provide emotional support.

Table 5 Relationship between age and effects of indoor and outdoor physical activities on mental development

Age	Effects of indoor and outdoor physical activities on mental development			Total
	Disagree	Undecided	Agree	
21-25	10	25	15	50
	20%	50%	30%	100%
26-30	12	10	10	32

	37.5%	31.2%	31.2%	100%
31-35	3	2	6	11
	27.2%	18.1%	54.4%	100%
Above 35	2	3	6	11
	18.1%	27.2%	54.4%	100%
Total	27	40	37	104
	26.7%	39.6%	36.6%	100.0%
Chi-square = 8.34 d.f. = 4		P-value = .005*		

Table 5 shows the relationship between age and Effects of indoor and outdoor physical activities on mental development it is shows a non-significant association between age and effects of Microsoft team and Zoom app on learning and teaching styles that increase academic achievements of students. It is shows that the age group of 21-25 had (20%) disagree, (50%) undecided and (30%) were agreed, while the age group of 26-30 had (37.5%) disagreed, (31.2%) undecided and (31.2%) were agreed. Results shows that age group of above 35 had (18.1%) were disagreed, (27.2%) undecided and (54.4%) were agreed.

Table 6 Relationship between Residential Status and effects on cognitive skill for mental development

Residential Status	Effects on cognitive skill for mental development			Total
	Disagree	Undecided	Agree	
Urban	12	14	34	60
	20%	23.3%	56.6%	100.0%
Rural	10	5	5	20
	50%	25%	25%	100.0%
Peri-urban	9	5	10	24
	37.9%	20.4%	70.6%	100.0%
Total	31	24	59	104
	30%	23.2%	56.7%	100.0%

Chi-square = 17.09 d.f. = 4	P-value = .05*
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Table 7 depicts the relationship between residential Status and effects on cognitive skill for mental development. It is showed that it had a non-significant relation. Above findings showed that from urban areas respondents had (20%) disagreed, (23.3%) were undecided and (56.6%) were agreed, while the rural respondents had (50%) disagreed, (25%) undecided, (25%) were agreed. Peri-urban areas respondents had (37.9%) disagreed, (20.4%) undecided and (70.6%) were agreed.

Table 7. Relationship between socio-economic attributes of the respondents according to their effects of indoor and outdoor physical activities on mental development

Model	B	Stander error	Beta	t	Sig.
Age	-109	.987	-0.765	-1.654	0.00
Qualification	-087	.456	-0.234	-2.456	0.00
Residential	-134	.765	-01.125	-4.876	0.00
R2 = 0.567					
F-value = 15.67					
P-value = 0.000**					

Table 7 depicts the relation of socioeconomic attributes with effects of indoor and outdoor physical activities on mental development. T-test was applied to show the relationship. Results showed the non-significant relation with F-value (15.67) and the P-value (0.00). Age has not significant results with of indoor and outdoor physical activities on mental development with (b= -109), qualification and of indoor and outdoor physical activities on mental development has non-significat with (b= -087) and residential with of indoor and outdoor physical activities on mental development was having (b= -132) values.

FINDINGS

Mental health is the state of wellbeing that able the human beings to realize and use their own abilities at right time. Mental health is the part of human personality because through these human beings can distinguish between several things. All development of human personality is related to the mental health. Mental health is related to psychological situation that affects individual internal and external drive. Development of mental health creates the balance between the good-mannered behavior, harmful and aggressive behavior. The aim of mental health is to create balance in the environment that bring positive effects on students learning. Development in mental health removes fear, anxiety and stress among the students that affects student’s mind physically or psychologically. Frustration and unfair situations by irrational superiors often lead students towards stressful environment that directly and negatively effects the student’s mental health. The study was conducted under the specific objectives such as to find out the role, effects

of physical education which effect the cognitive and mental health development and progress of students of Tehsil Sahiwal. The study was quantitative in its nature and survey method was used. All the teachers of secondary educational level was considered as population. The nature of the research was descriptive and was consist of survey method. There are total 22 secondary schools (10 secondary schools for girls and 12 secondary school for boys) in Tehsil Sahiwal from these only six schools (3 secondary schools for girls and 3 secondary schools for boys) are selected through convenient sampling technique. The total teachers of these 6 schools are 220 (100 teachers from girls secondary schools and 120 teachers from boys secondary schools) and these teachers are considered as the population of research. The sample size of the study is 104 teachers (46 teachers from girls secondary school and 58 teachers from boys secondary schools) with the confidence interval 5 % and confidence level 95% that is determined by using software i.e; www.surveysystem.com. The sample size of 104 teachers has been drawn through proportionate sampling technique and respondents was selected through simple random technique. The quantitative data were collected from the selected teachers through questionnaire keeping in view the objectives of the study. Collected data were analyzed by using statistical package for social sciences (SPSS).

Findings of the study

1. Half (50%) of the respondents were between 21-25 years old.
2. Majority (78.8%) of the respondents were master.
3. Half (50%) of the respondents were belonged to rural areas.
4. According to the study results football enhance mobility with (4.15 ± 1.00261) was at the rank no 1st order. It indicates that respondents undecided proceeding towards agree. Badminton improve the mental wellbeing with $(3.95 \pm .95916)$ was at the rank no 2nd order. It indicates that respondents undecided proceeding towards agree.
5. According to the study results outdoor physical activities improve planning ability with mean and standard deviation $(4.26 \pm .86159)$ at the rank no 1st order. It indicates that respondents agree proceeding strongly agree. Yoga improves the mental strength with mean and standard deviation $(4.11 \pm .94825)$ at the rank no 2nd order. It indicates that respondents agree proceeding towards strongly agree.
6. Standing rows able them to keep calm with mean and standard deviation (weighted score=390, mean value=3.78) was at the rank no 1st order. It indicates that respondents undecided proceeding towards agree. Squats able them to think positively with mean and standard deviation (weighted score=387, mean value=3.75) was at the rank no 2nd order. It indicates that respondents undecided proceeding towards agree.

CONCLUSION

While identifying the effects of physical education which effect the cognitive and mental health development and progress of students of Tehsil Sahiwal, it is concluded that half of the respondents were between 21-25 years old. Majority of the respondents were Master, half of the respondents were having B.Ed. professional qualification, majority of the respondents were having 1-5 years teaching experience. It is stated that the response of the respondents according to the effects of indoor and outdoor physical activities on mental development was cricket

flourish socializing, badminton improve the mental wellbeing and running race alleviate obesity. About the effects on cognitive skill for mental development, the respondents were agreed with the following statements as develop the attention span, throwing and catching reduce negative mood and alleviate the anxiety. It was also concluded that standing rows able them to keep calm. Squats able them to think positively. Bench step ups flourish the sense of try and try again. Dump bell row alleviate the anxiety disorder. Push up decrease the headache. It is recommended that for the development of student's cognitive abilities educational institutions should focus on the arranging of curricular and extra-curricular activities. Healthy hygienic and physical activities should be conveyed and effectively utilized for the existence of educational society. For the arrangement of educational system educational institutions should focus on the adoption of physical education.

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