

A study to assess the effectiveness of educational programme on knowledge regarding the importance of outdoor games on health among the students of class vi and vii in a selected school of Shillong, Meghalaya.

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Abstract

Playing outdoor games has become a necessary part of life, no matter whether your gender or age, young or old as it gets you exercise, sunlight, fresh air and build relationship. The study was done to assess the effectiveness of educational programme on knowledge regarding the importance of outdoor games on health among the students of class VI and VII in a selected school of Shillong, Meghalaya. A quantitative research design was used and 137 participants were selected, the study revealed that out of 137 participants, 34 (24.82%) participants had good knowledge, 72(52.56%) participants had

an average knowledge and 31(22.62%) participants had poor knowledge in the pre-test. In the post-test no. of participants increase to 66(48.18%) in the good knowledge category, decrease to 62(45.25%) in the average knowledge category and 9(6.57%) in the poor knowledge category. There was no significant association between knowledge and demographic variables which involved age, gender and educational status of the students.

Keywords: outdoor games, assess, educational programme, knowledge, health

Introduction

Outdoor games are the games which are played outside the home, shelter and in an open space. Outdoor games are mostly related to physical fitness along with the mental and social wellbeing of the Children. Outdoor games also include street games; street games or street play are any pleasurable activities played by the children outside their homes in the playground.

The outdoor plays have exhibited remarkable persistence over time. Games like Hide and seek, Game of tag, hopping, jumping, marbles and the competitive throwing of balls and others are found in the earliest historical records of virtually every culture. Outdoor games also include Cricket, Football, Badminton, Tennis and other luxurious games which many of the young ones cannot afford like that of Golf, Hockey and Night games for which an open space with good lighting is required. Origins, however, are less relevant in understanding the importance of children's outdoor play and street games than the cultural contexts in which such games are played.^[1]

In India, we see that many of the young ones have started games like Badminton, Tennis, Basketball and so on and are showing progressiveness. But games like Kabaddi, Ha-du-du, Hide and seek, Game of tag are slowly losing their touch with children. ^[2]

At first, Yoga was one of the many physical exercises which the children participated but it was by nature dull and monotonous, not giving any kind of excitement to the children.^[3]

Fortunately, we can see that street games as mentioned earlier are still prevalent in the school going children in their neighborhood and also during recess at school in today's generation which they enjoy playing and are also helping in the Physical, Mental and Social growth of the children.^[4]

Material and methods

Objectives

A) Primary objective

To assess the effectiveness of the educational programme regarding the importance of outdoor games on health among the students of class VI-VII in a selected school of Shillong, Meghalaya.

B) Secondary objectives

- 1) To assess the knowledge before and after the educational programme regarding the importance of outdoor games on health,
- 2) To determine the association between the pre-test knowledge and selective demographic variables.

Research hypothesis

H-1: There will be a significant increase in the post test knowledge score of students of class VI-VII regarding the importance of outdoor games on health.

Research methodology

The Research Methodology was formed on the basis of the objectives. It includes the Research Design, Variables, Settings, Sampling Techniques, development and Description of Data collection tool and the procedure to carry out the data collection.

Research design

One group pre testpost test Quasi Experimental design was adopted to assess the knowledge of the student of Class VI and Class VII regarding the importance of outdoor games on health.

Settings

The Research Study was conducted in two schools of Mawlai, Shillong. The schools were S.K.C Secondary School and Church Of God (Ecclesia) Higher secondary School.

Population

The study population included all the students of class VI and class VII of S.K.C. Secondary School and Church of

God (Ecclesia) Higher Secondary School, Mawlai, Shillong.

Sampling design

Sample size calculation

The sample size calculation adopted was attempted to total census enumeration.

Sampling technique

The sampling technique adopted was purposive sampling technique.

Sample size

The sample size for the study was 137 samples.

Description of the tool

To collect the necessary data, a structured knowledge questionnaire regarding the importance of outdoor games on health was developed. It comprises of two sections-

- Section A: It comprised of demographic profile of the participants consisting of 7 questions. The demographic variables are Age, Gender, and Religion, Educational status of students and Area of residence.
- Section B: It comprised of 20 Multiple Choice Questions which were based on Importance of Outdoor games on Health. The maximum knowledge score was 20. The knowledge score was classified into three categories that are Poor knowledge score, Average knowledge score and Good knowledge score.

Validity of the tool

The content validity of the tool was obtained from the experts belonging to the departments of Community Medicine, General Pediatrics, Psychiatry, Clinical Psychology, Sociology, Social worker and School Teacher.

Data collection procedure

The data collection was done through structured knowledge questionnaire, the maximum score is 20, for each correct answer the participant scored 1 mark and for

each incorrect answer the participant scored 0 mark.

There was no negative marking.

Scoring

The score was divided into three categories- i.e. Good knowledge score, Average knowledge score and Poor knowledge score. The Good knowledge score range was from 15 to 20 marks, Average knowledge score range was from 9 to 14 marks and Poor knowledge score range was less than and equal to 8 marks.

Interpretation of score

Interpretation of score was planned based on the objectives of the study and opinion of the various experts. Descriptive and Inferential Statistics were used to analyze the data. Descriptive Statistic like frequency tables, diagnosis and graphs were used to present the data and Inferential Statistics i.e. Chi Square test was used to find the Statistical association between selected variables.

Analysis and interpretation

Section 1: demographic profile of the study participants

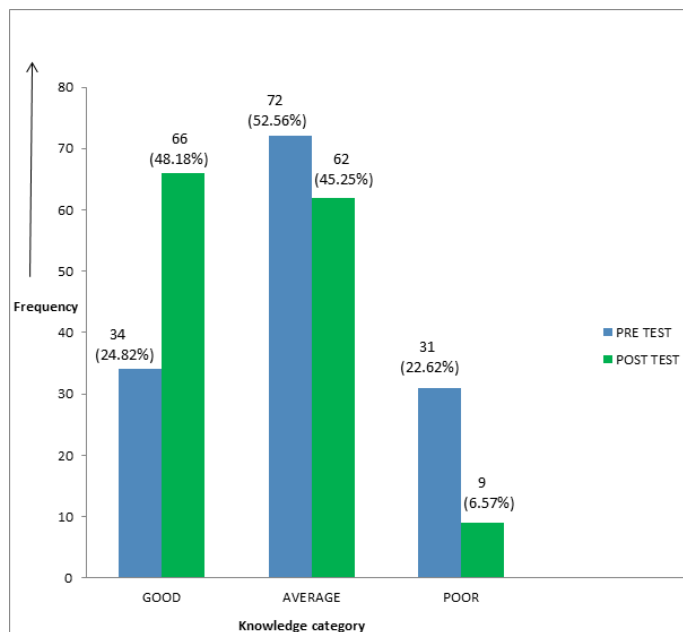
Table 1: demo graphic profile of the study participants. n= 137

Variables		Frequency (f)	Percentage (%)
Age (in years)	10-12	92	67.15%
	13-15	45	32.85%
Gender	Male	69	50.36%
	Female	68	49.64%
Educational status of the students	Class VI	68	49.64%
	Class VII	69	50.36%
Religion	Christian	133	97.08%
	Others	4	2.92%
Area of residence	Rural	0	0
	Urban	137	100%

The above table shows the demographic variable of the participants, out of 137 students, there were 92 (67.15%) students in the age group of 10- 12 years and 45 (32.85%) students in the age group of 13- 15 years, 69 (50.36%) students were male and 68 (49.64%) were female. There were 68(49.64%) students from class VI and 69(50.36%) students from class VII. 133 (97.08%) students followed Christianity whereas 4(2.92%) students followed other religions and all the students were from Urban area.

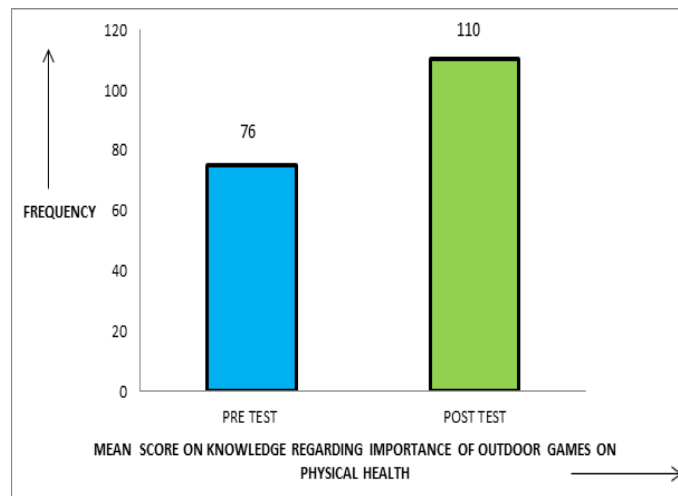
Section 2: level of knowledge of the participants regarding the importance of outdoor games on health

Figure 1: bar diagram showing the percentage of the participants in three categories of knowledge score on the importance of outdoor games on health in pre test and posttest.



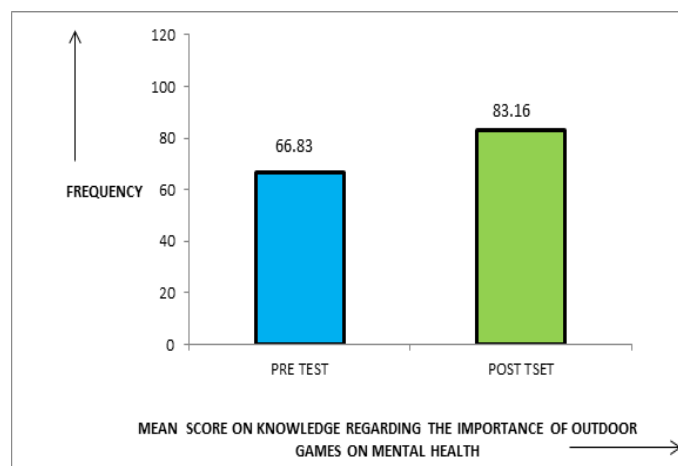
The above figure shows that the good knowledge category increased from 34(24.82%) in the pretest to 66(48.18%) in the post test, average knowledge decreased from 72(52.56%) in the pretest to 62(45.25%) in the post test and poor knowledge 31(22.62%) in the pretest decreased to 9(6.57%) in the post test.

Figure 2: bar diagram showing the mean pre-test score and mean post- test score of the participants regarding the importance of outdoor games on physical health.



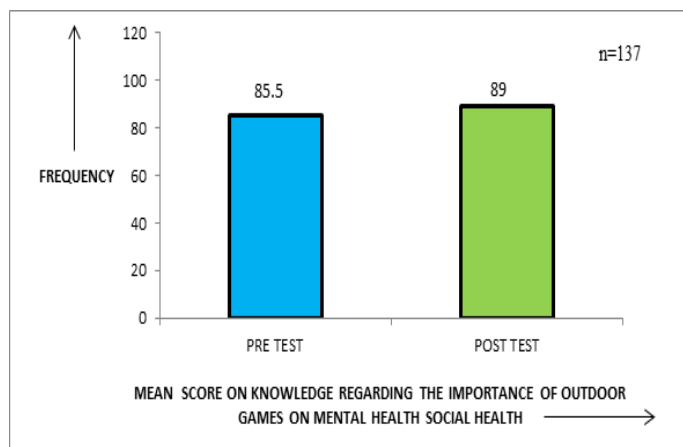
The above figure shows that mean score of the participants on knowledge regarding the importance of outdoor games on physical health increased from 76 in pre-test to 110 in post-test.

Figure 3: bar diagram showing the mean pre-test score and mean post- test score of the participants regarding the importance of outdoor games on mental health.



The above figure shows that mean score of the participants on knowledge regarding the importance of outdoor games on mental health increased from 66.83 in pre-test to 83.16 in post-test.

Figure 4: bar diagram showing the mean pre-test score and mean post- test scores of the participants regarding the importance of outdoor games on social health.



The above figure shows that mean score of the participants on knowledge regarding the importance of outdoor games on social health increased from 85.5 in pre-test to 89 in post-test.

Section 3: effectiveness of educational programme on knowledge regarding the importance of outdoor games on health

Table 2: paired t- test value showing the effectiveness of educational programme regarding the importance of outdoor games on health in terms of knowledge. N=137

Knowledge	Pretest	Post test	t-value
Mean	11.45	14.18	6.22*
Standard deviation	3.97	3.26	

Significant $p < 0.05$

The above table depicts that the mean score of pre-tests was 11.45 with the standard deviation (S.D) of 3.97, whereas in post-test, the mean score was 14.18 with standard deviation of 3.26.

The t-test value was 6.22 which is statistically significant at $p < 0.05$ level of significance and therefore, the educational programme regarding the importance of outdoor games is found to be effective. Hence, the research hypothesis is accepted.

Results

There were 137 participants in the study consisting of 68 (49.64%) students from class VI and 69 (50.36%) students from Class VII. It was found that most of the students were from the age group of 10-12 years. Majority of the students were male. It also showed a significant increase in the number of students in the good knowledge category which increased from 34 (24.82%) in the pre-test to 66 (48.18%) in the post test and major decrease in the number of students in average knowledge category which decreased from 72 (52.56%) in the pre test to 62 (45.25%) in the post test and in the poor knowledge category there were 31(22.62%) in the pre test which decreased to 9(6.57%) in the post test. Thus the study showed that the educational programme was effective in increasing the knowledge of the students regarding the importance of outdoor games on health. The study also showed that there was no association between the pre-test knowledge of the participants and their demographic variables.

Discussion

A study was conducted to assess the effectiveness of the educational programme on knowledge regarding the importance of outdoor games on health among the students of Class VI and VII. The objective of the study was to assess the effectiveness of the educational programme on the knowledge of outdoor games on health.

There were 137 participants in the study consisting of 68 (49.64%) students from class VI and 69 (50.36%) students from Class VII, most of the students were from the age group of 10-12 years and majority of the students were male. The study showed a significant increase in the number of students in the good knowledge category from 34 (24.82%) in the pre-test to 66 (48.18%) in the post test. There was a major decrease in the number of students in average knowledge category which decreased

from 72 (52.56%) in the pre-test to 62 (45.25%) in the post test and in the poor knowledge category there were 31 (22.62%) in the pre-test which decreased to 9 (6.57%) in the post test. Thus the study showed that the educational programme was effective in increasing the knowledge of the students regarding the importance of outdoor games on health.

A similar study was conducted in Bhilai, Chhattisgarh by Ariya S. Kurup and Prof. V. Hemavathy in 2015 to assess the effectiveness of video assisted Teaching Programme on knowledge regarding the Benefits of outdoor play among school going children. The study included 60 participants aged between 10-11 years. The study revealed poor pre-test knowledge score and significant increase in post-test knowledge score concluding that the video assisted teaching programme was highly effective in increasing the knowledge of the students regarding the benefits of outdoor play.

Conclusion

The present study conducted among school students to access the knowledge effectiveness of the educational programme on knowledge regarding the importance of outdoor games on health was found to be effective in enhancing the knowledge of the school children on importance of outdoor games on health.

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References

1. Street Games [document on internet]. Encyclopedia of Children and Childhood in History and Society. 2019. Available from: <https://www.encyclopedia.com/children/encyclopedias-almanacs-transcripts-and-maps/street-games>. [Accessed on 28th August, 2019].
2. Reddy P. Short essay on importance of outdoor games [document on internet] 2017 [cited 2017 Oct 19]. Available from: <http://brainly.in/question/1608690>. [Access on 20th November, 2018].
3. History of Fitness [document on internet]. Health and Fitness History.2019. Available from: <https://healthandfitnesshistory.com/>

and fitness history. com/ explore - history/ history-of-general-fitness/. [Accessed on 26th August, 2019].

4. Williams J. 30 classic outdoor games for kids [document on internet] 2009 [cited 2009 Aug 20]. Available from: <https://www.wired.com/2009/08/simple-outdoor-play/>. [Accessed on 28th August, 2019].
5. Kurup A.S, Hemavathy V. A study to assess the effectiveness of video assisted teaching programme on knowledge regarding the benefits of outdoor play among school going children in selected school of Bhilai, Chhattisgarh. *International Journal of Innovative Research in Science, Engineering and Technology* [Internet]. 2015 [cited 2015 Jan]; 4(1):18700-18704. doi: 10.15680/IJIRSET.2015.0401097. Available from: https://www.ijirset.com/upload/2015/january/17_1.pdf by selecting PDF link in table of contents. [Accessed on 30th October, 2018].
6. Patnaik S., Patnaik L, Patnaik S. Hussain M., Prevalence of overweight and obesity in a private school of Orissa, India. *Internet Journal of Epidemiology* [Internet]. 2011[cited 2011 [cited 2011 Jan 1]; 10(1): 20-36. doi: 10.5580/1459. Available from: <http://ispub.com/IJE/10/1/8235>. [Accessed on 19th November, 2018].
7. Ranjani H. et al. Epidemiology of childhood overweight and obesity in India: A systemic review. *Indian J Med Res* [Internet]. 2016 Feb [cited 2014 Jun 23]; 143 (2): 160- 174. doi: 10.4103/0971-5916.180203. Available from: <https://buc.kim/d/3MhwuxjyhqU2?Pub=link>. [Accessed on 19th April, 2019].
8. Mishra A. K., Acharya H. P. Factors influencing obesity among school-going children Sambalpur district of Odisha. *Journal of Medical Society* [Internet]. 2017 [cited 2017 Aug 17]; 31(3): 169- 173. doi: 10.4103/jms.Jms_73_16. Available from: <https://buc.kim/d/4jnDnW3h24Ne?pub=link>. [Accessed on 19th April, 2019].

9. Mutz M., Muller J. Mental health benefits of outdoor adventures: Results from two pilot studies. *Journal of Adolescence* [Internet]. 2016 [cited 2016 March 31]; 49: 105- 114. doi: 10.1016/j.adolescence.2016.03.009. Available from: <https://buc.kim/d/00CyJKSWxKwj?pub=link>. [Accessed on 16th May, 2019].
10. Bidzan-Bluma I., Lipowska M. Physical Activity and Cognitive Functioning of Children: A Systemic Review. *Int J Environ Res Public Health* [Internet]. 2018 [cited 2018 Apr 19]; 15(4): 800. doi: 10.3390/ijerph15040800. Available from: <https://buc.kim/d/2a4dYd6hXEI?pub=link>. [Accessed on 18th May, 2019].
11. Zeng N., Ayyub M., Sun H., Wen X., Xiang P., Gao Z. Effects of Physical Activities on Motor Skills And Cognitive Development in Early Childhood: A Systematic Review. *BioMed Research International* [internet] 2017 [cited 2017 Dec 13]. (1):1-13. doi: 10.1155/2017/2760716. Available from: <https://buc.kim/d/2q8cm06GsA2v?pub=link>. [Accessed on 19th April, 2019].
12. Rikkers W., Lawrence D., Hafekost J., Zubrick S. R., Internet use and electronic gaming by children and adolescents with emotional and behavioral problems in Australia- results from the second Child and Adolescent Survey of Mental Health and Wellbeing. *BMC Public Health* [Internet] 2016 [cited 2016 May 13]. 16:399. doi: 10.1186/s12889-016-3058-1. Available from: <https://buc.kim/d/6pMQXm3rO6zX?pub=link>. [Accessed on 18th May, 2019].
13. Pasanen T. P., Tyrvaainen L., Korpela K. M. The Relationship between Perceived Health and Physical Activity Indoors, Outdoors in-Built Environments, and Outdoors in Nature. *Appl Psychol Health Well Being* [Internet] 2014 Nov [cited 2014 Jul 9]; 6(3):324-46. doi: 10.1111/aphw.12031. Available from: <https://buc.kim/d/7r36EOLsKort?pub=link>. [Accessed on 18th May, 2019].
14. Shi Z., Lien N., Kumar B. N., Holmboe-Ottesen G. Physical activity and associated socio-demographic factors among school adolescents in Jiangsu Province, China. *Prev Med* [Internet] 2006 Sep [cited 2006 Jun 9]; 43 (3): 218-21. doi: 10.1016/j.y.pmed.2006.04.017. Available from: <https://buc.kim/d/3Ax2gaGphNtN?pub=link>. [Accessed on 18th May, 2019].
15. Bharati D. R., Deshmukh P. R., Garg B. S. Correlates of overweight and obesity among school going children of Wardha city, Central India. *Indian J Med Res* [Internet] 2008. [cited 2008 Jun] ;127 (6): 539-43. Available from: <https://buc.kim/d/2xaYMhL LM5g8?pub=link>. [Accessed on 19th May, 2019].
16. Mrunal. 10 Amazing Benefits of Outdoor Games for Kids [document on internet]. *First Cry Parenting*.2018 [cited 2018 May 31]. Available from: <https://parenting.firstcry.com/articles/10-amazing-benefits-of-outdoor-games-for-kids/>. [Accessed on 19th November, 2018].
17. 6th Annual Health Survey. Indian children need more playtime in school. 2014- 2015. Available from: www.edusports.in/edusports-6th-annual-health-survey/ by selecting PDF link in table of contents. [Accessed on 28th October, 2018].
18. Reddy P. Short essay on importance of outdoor games [document on internet] 2017 [cited 2017 Oct 19]. Available from: <http://brainly.in/question/1608690>. [Access on 20th November, 2018].
19. History of Fitness [document on internet]. *Health and Fitness History*.2019. Available from: <https://healthandfitnesshistory.com/explore-history/history-of-general-fitness/>. [Accessed on 26th August, 2019].
20. Street Games [document on internet]. *Encyclopedia of Children and Childhood in History and Society*. 2019. Available from: <https://www.encyclopedia.com/>

children/ encyclopedias – almanacs - transcripts – and -

maps/ street - games. [Accessed on 28th August, 2019].

21. Williams J. 30 classic outdoor games for kids

[document on internet] 2009 [cited 2009 Aug 20].

Available from: [https:// www. wired. com/ 2009/ 08/](https://www.wired.com/2009/08/simple-outdoor-play)

simple outdoor play. [Accessed on 28th August, 2019].