

UNIVERSITY GRANT COMMISSION
CENTRAL REGIONAL OFFICE, BHOPAL - 462016
PROFORMA FOR SUBMISSION OF INFORMATION AT THE
TIME OF SENDING THE FINAL REPORT OF THE WORK DONE
ON THE PROJECT

1. Name and Address of Principal Investigator : **Dr. VIRENDRA KUMAR SINGH
Prof. Colony Deepak Nagar Durg**
2. Name and Address of Institution : **Shri Shankaracharya
Mahavidyalaya, Junwani,
Bhilai**
3. UGC Approval No. and Date: **F.No.MH-115/202081/XII/14-15/CRO-45
6/7/2015**
4. Date of Implementation : **27/07/2015**
5. Tenure of the Project : **2 Years (2015-16, 2016-17)**
6. Total Grant Allocated : **1,60,000.00**
7. Total Grant Received : **1,15,000.00**
8. Final Expenditure : **1,62,727.00**
9. Title of the Project : **"Implementation and evaluation of
physical education program among
primary school children under mid-day
meal scheme, with special reference to
chhattisgarh state"**

10. Objectives of the Project :

The objective of this study was to determine whether the PEP curriculum improves weight status of children receiving the curriculum. The study is an analysis of data collected by the PEP Team of educators during the 2015-2016 school year. Pretest and posttest assessments were gathered from primary students in intervention and comparison schools in Chhattisgarh.

11. Achievements of the Project :

Mixed results have been reported for school based obesity prevention interventions. In this study improvement in weight status was observed in the intervention students in contrast to comparison students. Additionally, it is important to note that changes in weight status take a significant amount of time. The prevalence of obesity in this sample was as high or higher than rates previously reported for Chhattisgarh children. Owing to the high prevalence of obesity at the onset of the program, it may be difficult for a primary obesity prevention program to be successful beginning in the fifth grade. The study also suggests that interventions that aim to prevent obesity in children at normal weight may need to be supplemented with components that target children who are already obese. It appears that future school based interventions in Chhattisgarh need to begin earlier and/or be more intense in order to produce desired results. While schools alone cannot be responsible for reducing the obesity rates among children in Chhattisgarh, it is unlikely that obesity prevalence will decline without the involvement of schools given the influence that schools have in shaping the minds of students as well as the infrastructure already present for addressing physical activity and nutrition. Students attending schools with high poverty and high minority populations show a much higher rate of obesity than their counterparts. Culturally appropriate materials should be available for these students.

12. Summary of the Findings :

Childhood obesity is a major child health concern. The multiple effects of obesity in childhood are long-reaching. Since weight loss and maintenance are very difficult, prevention of obesity is important. Schools have been identified as an important environment for obesity prevention interventions since most children spend a large portion of the day at school. The purpose of this primary data analysis was to determine if the Physical Education Program (PEP) Chhattisgarh intervention improved weight status, fitness levels, and health knowledge and behaviors. A 2-by-2 repeated measures ANOVA was performed to determine whether differences exist between intervention and comparison students at pretest and posttest. Measures that were explored included BMI Z-scores, Progressive Aerobic Cardiovascular Endurance Run (PACER) scores, nutrition knowledge and behavior scores, and physical activity knowledge and behavior scores.

Significant advances were observed among intervention students in contrast to comparison students from pretest to posttest for physical fitness (as measured by the PACER), and nutrition and physical activity knowledge. A high prevalence of obesity was observed at pretest. It may be difficult for a primary obesity prevention program to be successful among fifth grade students with such high prevalence rates. A greater effect may be found when intervening with younger children. While schools alone cannot turn the tide on childhood obesity, it is unlikely that improvements can be made without the involvement of schools and programs such as PEP.

13. Contribution to the Society :

The evaluation of the PEP curriculum may provide valuable information to developers and stakeholders. Results provide evidence regarding the efficacy of the program for improving weight status, fitness levels, knowledge, and behaviors among fifth grade students in Chhattisgarh. Decision makers may

use findings from this study to improve the curriculum, materials, and teacher training. PEP financial supporters can examine the assessment of the

program, and health educator's may consider study results before adopting the curriculum.

14. **Weather any Ph.D. Enrolled/Produced out of the Project: No**

15. **No. of Publication out of the Project : 02**



Signature of Principal Investigator

Dr. Virendra Kumar Singh
Physical Education



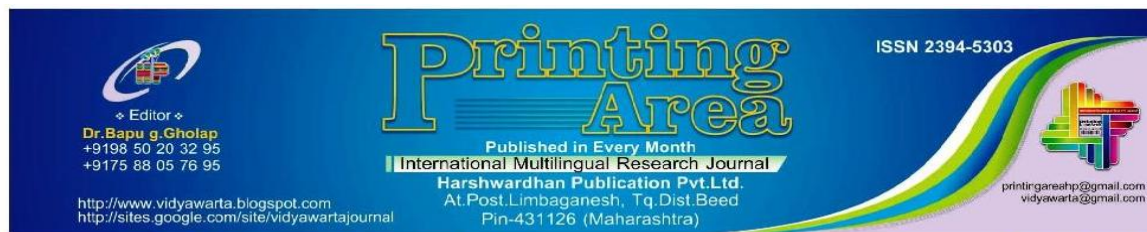
**Principal
PRINCIPAL**

Shri Shankaracharya Mahavidyalaya
Junwani, BHILAI (C.G.)



U.G.C. CELL INCHARGE
Shri Shankaracharya Mahavidyalaya
Junwani, BHILAI (C.G.)

Research Paper I &II



Ref. No: Accept/ June 2017/116

07/ 06/ 2017

To,

Dr. Virendra Kumar Singh¹

¹ Sports Officer (Physical Education),
Shri Shankaracharya Mahavidyalaya, Junwani, Bhilai.

Subject : Regarding the Selection of Research Paper for Printing
Area Research Journal (ISSN 2394 5303) (Impact factor 4.002)

R/ Sir/Madam,

We are very glad to make you know that the editorial board of 'Printing Area Research Journal' has selected your Research Paper entitled, **“Testing Physical Education Programme benefits in reducing child obesity among Chhattisgarh Students”**

Your paper will be published in **Issue-31, Vol-01**. Which will be published on **30 June 2017**. A copy of the printed Issue will be sent to you by Registered Post.

Thank you for sending your valuable writing for printing area Journal

Editor


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"Testing Physical Education Programme benefits in reducing child obesity among chhattisgarh students"

Dr. Virendra Kumar Singh¹

INTRODUCTION

Childhood obesity presents both prompt and long haul issues. Youngsters who are overweight or fat will probably be overweight or corpulent as grown-ups (Whitaker, R. C., Wright, J. A., Pepe, M. S., Seidel, K. D., and Dietz, W. H. (1997). Anticipating obesity in youthful adulthood from childhood and parental obesity. *New England Journal of Medicine*, 337(13), 869-873.). Since obesity builds the dangers for diabetes mellitus, cardiovascular infection, and other incessant conditions, general future might be decreased (Fontaine, Redden, Wang, Westfall, and Allison, 2008). A more noteworthy frequency of sort 2 diabetes has been accounted for among fat kids and young people (Flowers, S. R. (2008). *Mistaken Reporting of Child Body Weight Status by Child and Caregiver: Implications for Primary Care Providers*. ProQuest.); this onset of diabetes can prompt complex difficulties including cardiovascular illness and kidney disappointment (Must and Anderson, 2003).

Expanded danger of cardiovascular sickness among hefty kids and young people is uncovered by lifted aggregate cholesterol, triglycerides, insulin, as well as resting circulatory strain (Freedman, D. S., Kahn, H. S., Mei, Z., Grummer-Strawn, L. M., Dietz, W. H., Srinivasan, S. R., and Berenson, G. S. (2007). Connection of body mass file and midriff to-stature proportion to cardiovascular malady hazard considers youngsters and teenagers: the Bogalusa Heart Study. *The Indian diary of clinical nourishment*, 86(1), 33-40.). Albeit less pervasive, medical issues including asthma, hepatic steatosis (i.e., greasy liver), rest apnea, gallbladder sickness, endocrine brokenness, and musculoskeletal issue have likewise been related with childhood obesity (Tucker, S. J., Ytterberg, K. L., Lenocho, L. M., Schmit, T. L., Mucha, D. I., Wooten, J. A., ... and Wahlen, K. J. M. (2013). Lessening pediatric overweight: nurture conveyed motivational meeting in essential care. *Diary of pediatric nursing*, 28(6), 536-547.).

Notwithstanding physical issues, childhood obesity has psychosocial outcomes. Kids and youths who are corpulent may encounter early and methodical social separation from associates (Hart, K. D. (2014). An assessment of the Healthy Eating Active Living (HEAL) Chhattisgarh program for counteractive action of childhood obesity among fifth grade understudies). Being humiliated and embarrassed about their weight, these youngsters are more inclined to create sentiments of self-fault and low confidence (Gold, R. R., Petrella, J., Angel, J., Ennis, L. S., and Woolley, T.

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W. (2012). The characteristics of physical education teachers in view of understudies' impression of physical appearance. *Diary of Instructional Psychology*, 39(2), 92.). Examine recommends a conceivable relationship of school unlucky deficiencies and poor companion associations with overweight and obesity. Aftereffects of one review uncovered that overweight and fat kids were missing more much of the time than youngsters at an ordinary weight (Schnuch, An., Uter, W., Geier, J., Lessmann, H., and Frosch, P. J. (2007). Refinement to 26 aromas to be named by current Indian direction. *Contact Dermatitis*, 57(1), 1-10.). Also, when Schwimmer, Burwinkle, & Varni (2003) directed a pediatric personal satisfaction stock (PedsQL 4.0), kids and youths who were to a great degree corpulent had scores that recognized personal satisfaction measures like those of kids with malignancy.

ETIOLOGY OF CHILDHOOD OBESITY

In the most essential view, childhood obesity comes about because of a lopsidedness between vitality devoured through nourishment and vitality consumed through action. In any case, this unevenness happens because of a complex blending of hereditary and behavioral elements (U.S. Division of Health and Human Services, 2001a, World Health Organization, 2000).

Diary of pediatric nursing, 28(6), 536-547.).

Research Questions

- Does the Physical Education program improve nutrition knowledge as evidenced by nutrition knowledge questionnaire scores when compared to scores from primary students enrolled in comparison schools?
- Does the Physical Education program improve physical activity behaviors of primary students as evidenced by behavior questionnaire scores when compared to scores from primary students enrolled in comparison schools?
- Does the Physical Education program improve nutrition behaviors of primary students as evidenced by behavior questionnaire scores when compared to scores from primary students enrolled in comparison schools?

REVIEW OF LITERATURE

The onset of adolescence for young ladies is around 10 years old while young men start pubescence around 11 years old (Bagga, A. (2008). Administration of steroid touchy nephrotic disorder: amended rules. *Indian pediatrics*, 45(3).). Five essential physical pointers of pubescence incorporate quick development quickening that prompts critical tallness and weight

expands; the improvement of essential gender qualities, for example, facilitate advancement of testicles in young men and ovaries in young ladies; the improvement of auxiliary gender qualities like changes in privates and bosoms and development of pubic, facial, and body hair; changes in body arrangement influencing the sum and appropriation of fat and muscle; and changes in the circulatory and respiratory frameworks that deliver expanded quality and resistance for physical movement (Maddrey, W. C., Boitnott, J. K., Bedine, M. S., Weber, F. L., Mezey, E. W. R. I., and White, R. I. (1978). Corticosteroid treatment of alcoholic hepatitis. *Gastroenterology*, 75(2), 193-199.). Among young ladies, maximal development rate is accomplished around 6-12 months before menarche. A development spurt is seen later in young men, and development spurts among young men deliver more noteworthy pinnacle tallness speed than young ladies (Hagan et al., 2008). Top tallness speed midpoints 3.5 inches every year for young ladies and 4.1 inches every year for young men (Tanner, M. (1972). A technique for lessening the base drag of wings with limit trailing edge. *Aeronautical Quarterly*, 23(01), 15-23.). To survey weight status in kids and teenagers, body mass record (BMI) and BMI-for-age are utilized.

The estimation of Health dangers in view of weight for grown-ups depends on the genuine ascertained BMI. For grown-ups, a BMI underneath 18.5 shows underweight, BMIs between

18.5 and 24.9 mean a Healthy weight, BMIs in the vicinity of 25.0 and 29.9 suggest overweight, and BMIs more noteworthy than 30.0 infer obesity. In youngsters, the BMI esteem changes essentially over childhood; thusly, BMI-for-age, which is age and gender orientation particular is utilized (Wang, Z., Deurenberg, P., Guo, S. S., Pietrobelli, A., Wang, J., Pierson Jr, R. I., and Heymsfield, S. B. (1998). Six-compartment body piece show: between strategy examinations of aggregate muscle to fat ratio ratios estimation. *HUMAN BODY COMPOSITION MODELS*, 105.).

DETERMINANTS OF CHILDHOOD OBESITY

In the most fundamental view, childhood obesity comes about because of a lopsidedness between vitality devoured through sustenance and vitality used through movement. In any case, this unevenness happens because of a complex mixing of hereditary and behavioral elements (Sallis, J. F., Owen, N., and Fisher, E. B. (2008). Biological models of Health conduct. *Health conduct and Health education: Theory, research, and practice*, 4, 465-486.). The part of qualities in affecting body size and obesity is not completely seen; be that as it may, it creates the impression that there might be various heritable elements that are equipped for applying impacts through vitality admission and vitality use and the division of supplements amongst fat and fit tissue (Farooqi, I. S., and O'Rahilly, S. (2007). Hereditary calculates human obesity. *Obesity Reviews*, 8(s1), 37-40.).

RESEARCH DESIGN

This primary data analysis was led utilizing quantitative data assembled in 2015-2016 utilizing a pretest-posttest design. This design is generally utilized as a part of behavioral research to look at change that outcomes from an experimental condition (Arulmani, G. (2011). Striking the correct note: During the pretest stage both the experimental group and the comparison group were evaluated. The experimental group got the mediation while the comparison group did not get this intervention. Taking after the consummation of the mediation, posttest appraisals were gotten from both experimental and comparison groups (Naber, J., and Wyatt, T. H. (2014). The impact of intelligent composition interventions on the basic intuition aptitudes and manners of baccalaureate nursing understudies. *Nurture Education Today*, 34(1), 67-72.). This basic design enables the scientist to decide if the mediation had a causal impact

- **Hypothesis1**

H1: Physical activity knowledge scores are higher in the intervention group than the comparison group at posttest estimation.

H0: There is no significant difference in physical activity knowledge scores between the intervention group and the comparison group at posttest estimation.

- **Hypothesis2**

H2: Nutrition behavior scores are higher in the intervention group than the comparison group at posttest estimation.

H0: There is no significant difference in nourishment behavior scores between the intervention group and the comparison group at posttest estimation.

- **Hypothesis3**

H3: Physical activity behavior scores are higher in the intervention group than the comparison group at posttest estimation.

H0: There is no significant difference in physical activity behavior scores between the intervention group and the comparison group at posttest estimation.

Research Question 1

Research question 1 asked whether physical activity knowledge scores were higher in the intervention group than the comparison group at posttest measurement. Cronbach's alpha coefficients were calculated for the 3 physical activity knowledge questions to give estimates of internal consistency reliabilities for the set of questions. A Cronbach's alpha of .132 was obtained for the 3 physical activity knowledge questions. Table 4.6 shows the item-analysis statistics.

Research Question 2

Research question 2 asked whether nutrition conduct scores were higher in the intervention group than the comparison group at posttest. Cronbach's alpha coefficients were computed for the 4 nutrition conduct inquiries to give evaluations of inside consistency reliabilities for the arrangement of inquiries. A Cronbach's alpha of .101 was acquired for the 4 questions. Table 4.8 demonstrates the thing complete measurements. Investigation gets ready for grouped things required an estimation of .7 for Cronbach's alpha. This group of inquiries did not meet the required Cronbach's alpha; thusly, these 4 inquiries are accounted for independently.

Research Question 3

Research question 3 asked whether physical movement conduct scores were higher in the intervention group than the comparison group at posttest. Cronbach's alpha coefficients were ascertained for the 5 physical movement conduct inquiries to give evaluations of inward consistency reliabilities for the arrangement of inquiries. A Cronbach's alpha of .555 was gotten for the 5 physical movement conduct questions. Table 4.9 presents the thing all out insights.

DISCUSS AND CONCLUSIONS

No distinctions were seen in nourishment practices between the two gatherings at posttest. So also, Dawson, E. (2013). Does a coordinated sustenance training program influence Body Mass Index and learning maintenance of students? revealed no critical contrasts in dietary admission between gatherings. Different creators have revealed particular dietary conduct changes taking after a mediation. Expanded products of the soil admission was accounted for by Angeloulos and partners (2012) for all mediation primary students, and Gortmaker et al. (1999) observed expanded products of the soil utilization among young ladies in their mediation. James et al. (2009) observed lessened utilization of carbonated refreshments, and Robinson and associates (2016) revealed diminished eating time before TV for intervention primary students.

Several target practices that cooperate with this level of impact were assessed including things concerning recurrence of having breakfast, recurrence of family dinners, recurrence of eating at a fast food eatery, and recurrence of eating while at the same time staring at the TV.

Hierarchical components incorporate tenets and strategies that influence the person by forestalling or advancing a conduct. School based mediations question the hierarchical level. As observed already, mean BMI Z-scores contrasted among schools. A portion of the authoritative elements that may impact these discoveries incorporate region and neighborhood school prerequisites for PE classes, nearby school organization bolster for PE program, length of PE class, size of PE class, school wellbeing strategies, and area of school.

ACKNOWLEDGEMENT

This study is part of UGC Sponsored project entitled "Implementation and Evaluation of Physical Education Program among primary school children under min-day meal scheme." The author is thankful to UGC committee for sponsoring the project, Principal for assistance in doing project, Members for supporting in completion of the project.

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Berenson, G. S., Wattigney, W. A., Tracy, R. E., Newman, W. P., Srinivasan, S. R., Webber, L. S., ... & Strong, J. P. (1992). Atherosclerosis of the aorta and coronary arteries and cardiovascular risk factors in persons aged 6 to 30 years and studied at necropsy (The Bogalusa Heart Study). *The American journal of cardiology, 70*(9), 851-858.

Bergh, D. D. (1995). Problems with repeated measures analysis: Demonstration with a study of the diversification and performance relationship. *Academy of Management Journal, 38*(6), 1692-1708.

Berkey, C. S., Rockett, H. R., & Colditz, G. A. (2008). Weight gain in older adolescent females: the internet, sleep, coffee, and alcohol. *The Journal of pediatrics, 153*(5), 635-639.


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To,

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¹ Sports Officer (Physical Education),

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Your paper will be published in **Issue-31, Vol-01**. Which will be published on **30 June 2017**. A copy of the printed Issue will be sent to you by Registered Post.

Thank you for sending your valuable writing for printing area Journal

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Testing Physical Education Programme benefits in reducing child obesity among Chhattisgarh Students

Dr. Virendra Kumar Singh¹

ABSTRACT

The purpose of this study was to determine whether the PEP curriculum improves weight status of children receiving the curriculum. The study is an analysis of data collected by the PEP Team of educators during the 2015-2016 school year. Pretest and posttest assessments were gathered from approximately 600 primary students in intervention and comparison schools in Chhattisgarh.

INTRODUCTION

All through the world childhood obesity rates have achieved epic levels (Janssen, I., Katzmarzyk, P. T., Boyce, W. F., Vereecken, C., Mulvihill, C., Roberts, C., ... and Pickett, W. (2005). Correlation of overweight and obesity pervasiveness in school- aged youth from 34 nations and their associations with physical movement and dietary examples. Obesity audits, 6(2), 123-132.. The 2010-2011 National Survey of Children's Health demonstrated the commonness of childhood obesity among kids ages 10-17 years was 15.7%; be that as it may, Chhattisgarh fared more awful with 18.6% of kids in this age gather considered large (Crespo, C. J., Smit, E., Troiano, R. P., Bartlett, S. J., Macera, C. An., and Andersen, R. E. (2001). TV watching, vitality admission, and obesity in Indian youngsters: comes about because of the third National Health and Nutrition Examination Survey, 1988-1994. Documents of pediatrics and pre-adult prescription, 155(3), 360-365..). Utilizing 2009-2010 National Health and Nutrition

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Examination Survey information, Ogden, Carroll, Kit, & Flegal (2012) watched 16.9% of kids ages 2-19 are viewed as fat.

Research Questions

- Does the Physical Education program improve weight status of primary students as evidenced by body mass index (BMI) Z-scores when compared to scores from primary students enrolled in comparison schools?
- Does the Physical Education program improve fitness levels of primary students as evidenced by PACER (Progressive Aerobic Cardiovascular Endurance Run) test scores when compared to scores from primary students enrolled in comparison schools?
- Does the Physical Education program improve physical activity knowledge as evidenced by physical activity knowledge questionnaire scores when compared to scores from primary students enrolled in comparison schools?

REVIEW OF LITERATURE

The predominance of childhood obesity has expanded drastically in the course of recent decades. Five percent of youngsters 2-19 years old were stout amid 1971-1974 (Ogden, C. L., Flegal, K. M., Carroll, M. D., and Johnson, C. L. (2002). Commonness and patterns in overweight among US youngsters and youths, 1999-2000. *Jama*, 288(14), 1728-1732.) while 16.9% of kids met the criteria for obesity amid 2009-2010 (Ogden, C. L., Flegal, K. M., Carroll, M. D., and Johnson, C. L. (2002). Pervasiveness and patterns in overweight among US youngsters and youths, 1999-2000. *Jama*, 288(14), 1728-1732.). Essentially, pervasiveness of obesity expanded from 4% amid 1971-1974 (Ogden et al., 2002) to 18% amid 2009-2010 for kids 6-11 years old (Ogden, C. L., Flegal, K. M., Carroll, M. D., and Johnson, C. L. (2002). Predominance and patterns in overweight among US youngsters and youths, 1999-2000. *Jama*, 288(14), 1728-1732.).

Essential understudies are normally 10-11 years of age, setting them in the center childhood and early immature phases of life. Center childhood has been characterized as 5-10 years old, and early youth is considered 11-14 years old (Gershoff, E. T. (2013). Beating and tyke advancement: We know enough now to quit hitting our kids. *Youngster Development*

Perspectives, 7(3), 133-137.). In general, center childhood is set apart by moderate, enduring development. Amid this time, kids normal additions of two crawls in tallness and 6.5 pounds of weight for each year. Real development shifts in view of various variables, including how shut a kid is to pubescence (Kumari, P. L., Nair, M. K. C., Nair, S. M., Kailas, L., and Geetha, S. (2012). Press inadequacy as a hazard calculate for basic febrile seizures-a case control study. *Indian pediatrics*, 49(1), 17-19.).

The onset of adolescence for young ladies is around 10 years old while young men start pubescence around 11 years old (Bagga, A. (2008). Administration of steroid touchy nephrotic disorder: amended rules. *Indian pediatrics*, 45(3).). Five essential physical pointers of pubescence incorporate quick development quickening that prompts critical tallness and weight expands; the improvement of essential gender qualities, for example, facilitate advancement of testicles in young men and ovaries in young ladies; the improvement of auxiliary gender qualities like changes in privates and bosoms and development of pubic, facial, and body hair; changes in body arrangement influencing the sum and appropriation of fat and muscle; and changes in the circulatory and respiratory frameworks that deliver expanded quality and resistance for physical movement (Maddrey, W. C., Boitnott, J. K., Bedine, M. S., Weber, F. L., Mezey, E. W. R. I., and White, R. I. (1978). Corticosteroid treatment of alcoholic hepatitis. *Gastroenterology*, 75(2), 193-199.). Among young ladies, maximal development rate is accomplished around 6-12 months before menarche. A development spurt is seen later in young men, and development spurts among young men deliver more noteworthy pinnacle tallness speed than young ladies (Hagan et al., 2008). Top tallness speed midpoints 3.5 inches every year for young ladies and 4.1 inches every year for young men (Tanner, M. (1972). A technique for lessening the base drag of wings

with limit trailing edge. Aeronautical Quarterly, 23(01), 15-23.). To survey weight status in kids and teenagers, body mass record (BMI) and BMI-for-age are utilized.

ANALYSIS

The independent variable considered was intervention status. Dependent variables included weight status, aerobic wellness, nutrition learning, physical activity information, nutrition conduct, and physical activity conduct. The principle investigation analyzed contrasts between gatherings from pretest to posttest. Likewise, a depiction of contrasts in ward variables when ordered by sexual orientation, school minority status, and school neediness status will be finished.

Pretest and posttest variables were nonstop (BMI Z-scores, PACER scores, learning scores, and conduct scores). Member information was incorporated if all segments are accessible for comparison. A significance level of .05 was be utilized all through the review.

The review was formed by these proposed research and null hypotheses:

- **Hypothesis1**

H1: Weight status is more enhanced in the intervention group than the comparison group at posttest estimation as prove by lower BMIZ-scores.

H0: There is no significant difference in weight status between the intervention group and the comparison group at posttest estimation as confirm by BMIZ-scores.

- **Hypothesis2**

H2: Aerobic wellness is more noteworthy in the intervention group than the comparison group as confirm by higher Progressive Aerobic Cardiovascular Endurance Run (PACER) scores in the intervention group at posttest estimation.

H0: There is no significant difference in oxygen consuming wellness as confirm by PACER scores amongst intervention and comparison groups at posttest estimation.

- **Hypothesis3**

H3: Nutrition knowledge scores are higher in the intervention group than the comparison group at posttest estimation.

H0: There is no significant difference in nutrition knowledge scores between the intervention group and the comparison group at posttest estimation.

Research Question 1

Research question 1 asked whether weight status is more enhanced in the intervention group than in the comparison group at posttest measurement as confirm by BMI Z-scores. BMI Z-scores are a measure of relative weight which is balanced for kids' age and gender. Figured with respect to an outer reference (i.e., CDC reference information), BMI Z-scores compare to development outline percentiles. For instance, a Z-score of 0 is equivalent to the 50thpercentile.

Research Question 2

Research question 2 asked whether PACER scores are more enhanced in the intervention group than in the comparison group at posttest measurement. PACER scores could go from 0 – 75 laps. Table 4.2 presents engaging insights for the PACER measurement. At pretest, intervention primary students had a mean PACER score of 23.98 with a standard deviation of 13.61; at posttest, the mean score was 26.93 with a standard deviation of 14.29 for the intervention primary students.

Research Question 3

Research question 3 asked whether nutrition learning scores are higher in the intervention group than the comparison group at posttest measurement. For each of the 14 things, a score of 1 was relegated for right reactions; 0 focuses were doled out for inaccurate answers. Cronbach's alpha coefficients were computed for the 14 nutrition information inquiries to give evaluations of interior consistency reliabilities for the arrangement of inquiries. A Cronbach's alpha of .673 was acquired for the first 14 nutrition information questions. Examination anticipates grouped things required an estimation of .7 for Cronbach's alpha.

DISCUSS AND CONCLUSIONS

In this study, weight status was not seen to be more enhanced among the mediation group than the comparison group at posttest estimation. Intervention primary students had a mean BMI z-score of .49 at pretest and .54 at posttest; comparison primary students had mean BMI z-scores of .65 at pretest and .65 at posttest. The mediation and comparison primary students varied at both estimations. An expansion in mean BMI z-score from pretest to posttest created a distinction in the estimation focuses for mediation primary students; no adjustment in mean BMI z-score was seen among comparison primary students. Different researchers have likewise revealed an absence of positive outcomes (Adamo, K. B. (2007). Group based Interventions Targeting Healthy Weights among School-matured Children. Report composed for the benefit of the Champlain Healthy School aged Children Committee.).

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