

SOCIAL AND ENVIRONMENTAL EFFECTS ON PHYSICAL ACTIVITIES OF KASHMIR UNIVERSITY BUSINESS SCHOOL STUDENTS

Sneha Choudhary and Manoj Kumar Pathak

Department of physical education, Rabindranath Tagore University

Corresponding Author

Sneha Choudhary

*Department of physical education,
Rabindarnath Tiger University, Bhopal*

Abstract

The present research indicates that the social and physical environment have high influence on students participation in physical activities in Business Schools. As we aware, the schools are well placed to promote health and physical activity behaviors because of the amount of time students spend in this environment and the elements of the school curriculum that are adaptable to include such content. However, barriers experienced by teachers and students and those imposed by the school as an institution are increasingly impacting on the role that physical education plays within schools. The present study has identified both institutional and individual related factors as few of the major barrier in imparting proper physical education. The result of the present study also has implications in relation to business school management. One of the major stakeholders of this research is the business school management. The business school management is the stakeholder who will make provision of appropriate physical and social environment to the students. The infrastructure of the business school should be sufficient enough to bring healthy life style to the students studying there. Better the infrastructure in relation to physical education higher the students interest to participate in the physical exercise activities.

Keywords: Physical education; Business School; Social effects; Environmental effects

1. Introduction

Physical education is a school-based program that provides students with opportunities to be physically active and to acquire the skills and knowledge needed to establish and sustain an active lifestyle (Pate, Davis, Robinson, Stone, McKenzie, and Young, (2006). The daily physical education taught by qualified, trained educators provides the unique opportunity for the students to obtain the knowledge and skills needed to establish and maintain physically active lifestyles throughout the childhood, adolescence, and into the adulthood (Lee, Burgeson, Fulton, and Spain, 2007; Pate, Davis, Robinson, Stone, McKenzie, and Young, 2006). The daily physical education is recommended by more than 30 national organizations including the American Academy of Paediatrics, American Heart Association, Action for Healthy Kids, Centres for Disease Control and Prevention, National Association for State Boards of Education, and National Association for Sport and Physical Education (Strong, Malina, Blimkie, Daniels, Dishman, Gutin, Hergenroeder, Must, Nixon, Pivarnik, Rowland, Trost and Trudeau, 2005; Lee, Burgeson, Fulton and Spain, 2007; Pate, Davis, Robinson, Stone, McKenzie and Young, 2006).

Physical activity patterns during the young adult years are likely to be important influences on habitual physical activity during overall adult life and, consequently, have significant implications for long-term health outcomes. Especially the graduates from the business school have to perform the business activities by taking best of managerial decisions with physical and mental agility. The potential reach and impact of college physical education on the promotion of physical activity to a large segment of the business schools and business graduates has been largely unrecognized. Over the last generation, many business schools, colleges of management and even universities have reduced or eliminated their physical education requirements. The present study was observed to analyze the direct and positive relationship between institutional social and physical environment and the participation in physical activities of business school students of Kashmir University.

2. Methodology

THEORETICAL FRAMEWORK

This particular study attempts to examine the impact of physical and social environment (PSE), and Individual Motivation or Behavioral Regulation in Exercise Questionnaire (BREQ) on Physical Exercise Intention (PSI) with the mediation effects of Gender Appropriateness (GA) and Physical exercise self efficacy among business school graduate students. Each factor selected for the study will be conceptually, operationally and theoretically connected through the framework to explain the phenomena under study.

HYPOTHESES

As mentioned by Zikmund, Babin, Carr and Griffin (2012), a hypothesis can be described as “yet to be proven statement that will explain certain facts or phenomena tentatively.” With respect to the hypotheses explanation in the chapter of literature review, the following hypotheses are hereby proposed in order to test the influence of physical and social environment and individual motivation on physical activity engagement. The study also tests the mediation effect of self-efficacy and gender.

QUESTIONNAIRE DEVELOPMENT

For this study, a combination of validated measurements was utilized to develop relevant instruments from various related literatures. Questions in the questionnaire are simple, direct to the point, stress-free for the respondents, and not lengthy (Fraser and Lawley, 2000). The researcher gave careful attention in creating the questionnaire especially in the usage of language, sequencing the questions, altering the font size and conveniently spacing the characters to minimize eyestrain (Hunt, Chonko and Wilcox, 1984). To reduce measurement error and escalate the response rate, questionnaire was developed with easy-to-follow guidelines (Sanchez, 1992; Bagozzi, Yi and Phillips, 1991; Babbie, 1990). The demographic details of the respondents, used to stratify respondents into like groups of age, gender, educational attainment, etc. were placed in the later part of the questionnaire as to minimize respondents' possible fatigue and carelessness in answering the key questions in the questionnaire (Alreck and Settle, 1995).

Sampling method and Sample size

As the respondents are selected based on three main criteria, this study utilizes a non-probability sampling method. An appropriate sample size for this research is between 100-500 for a non-probability sampling method (Hair, Anderson, Tatham and Black, 2006; Sekaran, 2003). According to Sekaran (2003), the rule of thumb in determining a sample size suitable for most non-probability method would be larger than 30 and less than 500. For the sample size of this research, the researcher administered approximately 10% of the accessible population. A total number of 300 purposely-selected senior level (3rd year) business graduates were selected. The respective schools then nominated 30 students who met the researcher's given criteria. Based on Hair's et al. (2006) and Sekaran (2003) suggestion above, the researcher chose a 300 business school students as the research participants mainly because the number is within the suggested size and also an appropriate number to assess the accessible population of the study. The ability to obtain answers from the senior level students who were truly in the know about the

subject matter was more important than getting a larger sample size as answers from inexperienced students could potentially be bias and skew the answers toward the negative.

Statistical Techniques to Test the Hypotheses of the Study

It is noted that every statistical test requires some underlying assumptions and conditions to be met before testing the final models (Coakes and Steed, 2007; Levin and Fox, 1988). As guided by cited authorities, the study data met all of the underlying assumptions of multivariate analysis, through SPSS such as, data normality, homoscedasticity unidimensionality and multicollinearity. In addition, values of means, minimum, maximum and standard deviations were calculated under descriptive statistical techniques. Furthermore, sample description was narrated through cross tabulation. To draw inferences about study hypotheses, PLS-SEM technique was mainly employed for the data analysis. Moreover, the requirements of structural and measurement models were met through PLS-SEM by using Smart PLS 3.0.

3. Results

Normality Tests and Outliers

From the result in Table 1, it clearly indicates that all of the latent variables are normally distributed with a slightly negatively skewed though still fall between the acceptable. The data obtained were rechecked in order to obtain the reliability of the data. To calculate the z value of the skewness and kurtosis for this study, the study adopted a formula which is “statistic value /standard error”. This is clearly depicted in Table.1, which provides the z value of all variables. The result of z value of skewness and kurtosis falls within the acceptable range -2 to + 2 (George and Mallery, 2010).

Table 1. ANALYSIS OF SKEWNESS AND KURTOSIS

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PSE	300	3.70	-1.99	.112	1.29	.213
BREQ	300	3.51	-.745	.112	.823	.213
GA	300	3.60	-1.413	.112	1.541	.213
PESES	300	3.81	-1.001	.112	1.683	.213
PPA	300	3.61	-.714	.112	.103	.213
Valid N	300					

Histogram is graphical tool through which normality also can be assessed (Garson, 2012). The histogram method complements the PP-plot and QQ-plot graphical method. Once again the data normality is portrayed with the support of PP normality plots and histogram. Thus, the statistical techniques applied in this research confirmed the assumption of normality. This method complements PP- plot and QQ-plot graphical method.

Assessment of Outliers

As described by Barnett and Lewis (1994), outliers are observations or subsets of

observations which appear to be inconsistent with the remainder of the data. In a regression-based analysis, the presence of outliers in the data set can seriously distort the estimates of regression coefficients and consequently leading to unreliable results (Verardi and Croux, 2008). Statistically, outliers are described as those observations that have different characteristic from general pattern. Therefore, it is very crucial to detect outliers to avoid data being distorted and unreliable results at the end of the analysis Table.2.

Table.2. DISTRIBUTION OF OUTLIERS

Variables	Outliers
PSE	9, 13, 16,
BREQ	8, 15, 19,
GA	6,
PESES	5
PPA	No outliers

Descriptive Statistical Analysis

The usefulness of the variables in the studies was assessed through the means, standard deviation and range. The Table.3 provides values of the means and the standard deviation values for the latent variables, construct wise with the minimum and maximum scores. The mean of the independent variables following into ranging value between 5.52-3.77 and the rest of the variables also shown incline towards agreeable level. The standard deviation values show that there is not much deviation from mean in the data.

Table.3. RESULT OF THE DESCRIPTIVE STATISTICAL ANALYSIS

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PSE	300	1	5	3.12	.788
BREQ	300	1	5	3.91	1.134
GA	300	1	5	3.65	.7871
PESES	300	1	5	3.75	1.413
PPA	300	1	5	3.69	.651
Valid N (list wise)	300				

Common Method Variance Analysis

This particular analysis was conducted in order to identify if a single factor explains for the majority of the variance (Malhotra *et al.*, 2006). The results of this test must reveal more than one factor having >1 (Eigen value). Apart from that, no single factor must explain significant amount of variance (Podsakoff *et al.*, 2003). The results confirmed that no single factor explained a greater amount or half of the total variance. This clearly shows there is lack of variation in the data and results are showing lack of CMB.

KMO and Bartlett Test

Table.4. KMO AND BARTLETT TEST WITH OVERALL DATA

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.763
Bartlett's Test of Sphericity	Approx. Chi-Square	1562.254
	Df	352
	Sig.	.000

In this particular study, KMO statistic for the overall data was 0.87 as indicated in table.4

and table.5. This is considered good enough for data analysis. From the analysis result, the Barlets test of sphericity test was also significant at 0.001 ($p < 0.001$). Table.5 provide detail results of the KMO values for all constructs which range from 0.578- to 0.935.

Table.5. KMO AND BARLETT TEST CONSTRUCT-WISE

Constructs	KMO	Bartlett's Test
PSE	0.811	.000
BREQ	0.703	.000
GA	0.690	.000
PESES	0.701	.000
PPA	0.672	.000

Correlation analysis result

This analysis was conducted after the ensuring that all the basic assumptions such as the outliers, linearity, normality etc. were met. It is conducted with a view to determine the direction of the association among the variables used in this study. As it is, there is one dependent variable in this study which is Intention to participate physical activity (PPA) (Tables.5 and 6). The corelation result shows that there is significant correlation among the variables even among the independent variables (Physical (PE) and social environment (SE), Individual motivation and Physical Exercise Self-efficacy) with the dependent variables Intention to participate physical activity at 0.01 level.

Table.6. CORRELATIONS INTENTION TO LEAVE

Correlations				
	PPA	PSE	BREQ	PESES
PPA	1			
PSE	.503**	1		
BREQ	.510**	.490**	1	
PESES	.513**	.502**	.452**	1

** .Correlation is significant at the 0.01 level

The result in Table on Physical (PE) and social environment (SE) indicates significant and positive relation to Intention to participate physical activity($r=0.603$, $P < 0.01$). The table further indicate similar relationship between Individual motivation and Intention to participate physical activity ($r=0.610$, $P < 0.01$) and intention to leave ($r=0.610$, $P < 0.01$). Further the result between Physical Exercise Self-efficacy and Intention to participate physical activity also indicates significant and positive relation ($r=-0.613$, $P < 0.01$).

4. Discussion

This particular study also examined the mediating role of physical exercise self-efficacy. The result indicates that physical exercise self-efficacy acts as mediator between institutional physical and social environment and participation in physical activity among students of business schools. The study thus shows that the physical exercise self-efficacy mediates the relationship

between institutional physical and social environment and participation in physical activity. The linkage between physical exercise self-efficacy and participation in physical activity has been investigated by majority of studies (Hendry, Shucksmith, Love and Glendinning, 1993, Hargreaves, 1994, Flintoff and Scraton, 2001). The present study is consistent with several research outcomes (Bandura, 1982, Buckworth, Granello and Belmore, 2002; Sullum et al., 2000) which indicates that physical exercise self-efficacy mediates the relationship between social and physical environment of academic institutions and the students' participation in physical activities. Self-efficacy is the belief or perception an individual has of his or her own ability to complete a given task (Bandura, 1982). Recent research has shown that self-efficacy accounts for the majority of variance between the stages of change and exercise (Cardinal et al., 2004; Marshal and Biddle, 2001; Wallace and Buckworth, 2001). Self-efficacy has consistently been positively associated with being physically active, stage of change for physical activity, and adherence to physical activity programs (USDHHS, 1996).

Some studies report a negative association between self-efficacy for exercise and physical activity behavior (Felton, Boyd, Bartoces and Tavakoli, 2002; Sanderson et al., 2003). Such the resulting inconsistency could be related to other factors such as methods used to measure outcomes and length of intervention. In the current study self-efficacy mediates the relationship between institutional environment and the participation behavior of students in physical activities.

5. Conclusion

The present observation indicates that the variables like self efficacy act as mediator between the social and physical environment and the student participation in physical exercises. It is envisage in this context that the practitioners and the school management should keenly taken into consideration the effect of school social environment and physical infrastructure, gender appreciation and self esteem in order to make the students engage in physical exercises. The study paves better insight into the physical education professionals, business school management, physical education teachers and the students in the business school in order to be aware of importance of physical education and physical exercise in business school setting.

References

- Ajzen, I. 1985. From intentions to actions: a theory of planned behavior. In Kuhl, J. and Beckmann, J. (eds), *Action Control: From Cognition to Behavior*. Springer-Verlag, New York.
- Alan C. Elliott and Wayne A. Woodward. 2007. *Statistical Analysis Quick Reference Guidebook*. Thousand Oaks, CA: Sage Publications, Inc.
- Alexander, P.A. 2006. *Psychology in learning and teaching*. Columbus, OH: Prentice-Hall.
- Bonell, F., Jamal, A., Harden, H., Wells, W., Parry, A., Fletcher, M., Petticrew, J., Thomas, M., Whitehead, R., Campbell, S., Murphy, and Moore, L. 2013. Systematic review of the effects of schools and school environment interventions on health: evidence mapping and synthesis. *Public Health Research*, 1(1).Southampton (UK).
- Bouchard, C., Shephard, R. J., Stephens, T., Sutton, J. R. and McPherson, B. D. 1990. Exercise, fitness, and health: The consensus statement. In C.
- Bouchard, R. J. Shephard, T. Stephens, J. R. Sutton, and B. D. McPherson (Eds.), *Exercise, fitness and health: A consensus of current knowledge*. Champaign, IL: Human Kinetics, pp. 3-28.

- Elkind, D. 2008. Can We Play? Greater Good Magazine. Retrieved October 18, 2008, from the World Wide Web. Fahey, Tony and Delaney, Liam and Gannon and Brenda. 2005. School Children and Sport in Ireland, Research Series, Economic and Social Research Institute (ESRI), number BMI182.
- Feltz, D. L. 1988. Self-confidence and sports performance. In K. B. Pandolf (ed.). Exercise and Sports Science Reviews. New York: Academic Press, pp. 75–109.
- Fernandez-Balboa, J.M. 1997. Critical Post-modernism in Human Movement. Physical Education and Sport. New York: Suny.
- Groth-Marnat, G. 2010. Handbook of Psychological Assessment. New York, NY: Wiley.
- Hair, J. F., Hult, G. T. M., Ringle, C. M. and Sarstedt, M. 2014. A primer on partial least squares structural equation modeling (PLS-SEM). Thousand Oaks, CA: Sage.
- Hair, J.E., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. 2006. Multivariate Data Analysis. (6th edition). New Jersey: Pearson Prentice Hall.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. 2010. Multivariate Data Analysis (7th ed.). New Jersey: Pearson Prentice Hall.
- Hardman, K. and Marshall, J.J. 2000. World-wide survey of the state and status of school physical education. Final Report. Manchester, University of Manchester.
- Harrison, J. M., Blakemore, C. L. and Buck, M. M. 2001. Instructional strategies for secondary school physical education (5th Edition). Boston, MA: McGraw-Hill.
- Harter, S. 1985. Manual for the self-perception profile for children. Denver, CO: University of Denver.
- Polit, D.F. and Beck, C.T. 2004. Nursing Research: Principles and Methods. 7th edn. Lippincott Williams and Wilkins; Philadelphia.
- Porter, S. 2002. Research and Marketing Ltd. 2002. Physical activity: an exploration of the issues and attitudes of parents of pre-fives. Scott Porter Research and Marketing Ltd.
- Sekaran, U. and Bougie, R. 2009. Research Methods for Business: A Skill Building Approach, 5th edition, John Wiley and Sons Ltd., United Kingdom.
- Sekaran, U. and Bougie, R. 2010. Research Methods for Business: A Skill Building Approach (5th ed.). West. Sussex, UK: John Wiley and Sons Ltd.
- SHAPE America. 2014. Society of Health and Physical Educators. National Standards and Grade Level Outcomes for k-12 Physical Education. Champaign, IL: Human Kinetics.
- Sharp, B. 1992. Acquiring Skill in Sport. Eastbourne, UK: Sport Dynamics.
- Sirkin, R.M. 2006. Levels of measurement and forms of data. In R.M. Sirkin, Statistics for Social Scientists, Sage Publications, Thousand Oaks, Ca. e-reserve, pp. 33-62.
- Tucker Center for Research on Girls and Women in Sport. 2007. Developing physically active girls: An evidence-based multidisciplinary approach. Minneapolis, MN: Tucker Center for Research on Girls and Women in Sport.
- WHO Report. 2002. The world health report 2002: reducing risks, promoting healthy life. Geneva: World Health Organization.