

Physical Activity among Nepalese Teachers; the Perspective of Role Modeling

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Abstract

Physical activity is any form of involvement in exercise or movement of the body that uses energy. Teachers also need an appropriate amount of physical activity because they are observed by their students in many ways, including their exercise behavior and fitness. Although an adult requires a minimum of 150 minutes (or at least 3 days) of additional physical activity in a week, this study shows that the sampled teachers were not in this mark. This cross-sectional survey of 344 teachers in 46 secondary schools in Bagmati Province of Nepal found the physical activity behavior among Nepalese teachers with the perspective of role modeling for health promotion. It has been argued that teachers who have average healthy behaviors and lifestyles with respect to physical activity neither make them healthier nor contribute to the creation of healthy role models in schools. The age and gender of the teacher were found to determine the degree of physical activity. More than two-thirds of her teachers were not reaching the recommended weekly physical activity level. More than two-fifths of the teachers did not receive training once a week. Physical activity among the teachers was recommended to present them as healthy role models.

Keywords: Physical activity, physical exercise, role model, role modeling, teachers, Nepal

Introduction

Teachers are sources of experience in every matter and they knowingly or unknowingly propose themselves as role models to their students. Students observe their teachers' health behavior every day and are directly influenced. This may be in terms of health behaviors including physical activity and exercising as well. Regular physical exercise is also needed for the teachers to become healthy role models. Students are always interested in getting deeper into teachers' deeds to know them. One of their areas of interest can be health-related aspects which may, later on, develop into a healthy attitude and right change in behavior if they perceive their

teacher as a healthy role model. Unfortunately, many school teachers are susceptible to various health problems that interfere with the success of the students because the teachers become frequently absent and present poor role modeling in terms of health.

Physical activity is anything that gets the body to move. As per the US Department of Health and Human Services (2008), physical activity is any form of exercise or movement of the body that uses energy. It further says that to get the health benefits of physical activity, one has to include activities that make one breathe harder and make their heart and blood vessels healthier. These aerobic activities include things like quick walking, running, dancing, swimming, playing football or basketball, etc.

There is a direct link between premature death and physical fitness according to a 15-year study by Kenneth Cooper's Aerobic Centre in Dallas. The study found that men in the bottom 20 percent of fitness rankings were twice as likely to die early as compared with their most fit counterparts (Journal of the American Medical Association, 1989, as cited in Wendel, 1995).

The US Department of Health and Human Services (2008) suggests to adults get at least 150 minutes each week of aerobic physical activity that requires moderate effort. This means adults should have at least 20 minutes of moderate exercise or 10 minutes of vigorous exercise per day. It is necessary to get involved in physical activities and exercises for at least 20 minutes every day for teachers too or they can do it for about an hour for 3 days.

Teachers are among the largest one most valuable workforces in any nation which nurtures and significantly shapes every generation. They are in a position to pass along lessons of life besides the subject matter (2U Inc., 2021). A role model is a person whose behavior, example, and success are or can be imitated by others, especially by younger people. Sociologist Robert K. Merton hypothesizes that individuals compare themselves with reference groups of people who occupy the social role to which the individual aspires (Reference Groups, 2021). Merton emphasizes that rather than a person assuming one role and one status, they have a status set in the social structure that has attached to it, a whole set of expected behaviors (Holton, 2004).

Generally, role models are understood to be other persons who, either by exerting some influence or simply by being admirable in one or more ways, have an impact on another (Nauta & Kokaly, 2001 as cited in Schroeter, 2002). A role model can give a person an idea of how they would like to be. It would probably be based on some dissatisfaction with an aspect of oneself, and the role model would provide a way of 'turning around' the person's thinking so that they can say "I've got to be more like X and feel positive about it". The author too has an assumption that a teacher can set an example through exercising behaviors and fitness.

Problem Statement

The Nepalese education system aims to produce healthy citizens because, in general, healthy citizens can only contribute to national development. This is possible when healthy teachers teach. However, teachers face a series of problems within school and at home too due to school-associated causes. In Nepal, it is commonly perceived as a poorer status for teachers, from an economic, social, and health point of view as well.

Healthy teachers can only serve as healthy role models in schools. Health-promoting schools (HPS) need healthy role models. When students see teachers practicing what they preach, they are more likely to practice those healthy behaviors themselves. However, there is no evidence study of it in Nepalese schools. Is observational learning theory applicable among secondary-level students in terms of physical activity?

The theoretical underpinning for role models is social learning theory. According to this theory, people learn behavior by observing it in others and repeating it if it appears beneficial to them (Schroeter, 2002). Albert Bandura, a social cognitive theorist, propounds that people can learn by observing the behavior of others. Aronson, Wilson, and Akert (1997) say that children have never been good at listening to their elders, but they have always been successful to imitate them. Individuals can also learn by observing what happens to other people and just by being told something, as well as by direct experience.

It is important for all subject teachers, indiscriminately being health education teachers or members of the school health team, to practice healthy role modeling to support and encourage healthy habits among students. Even a small change in words and actions by the teachers can make a positive impact on students' wellness. Teachers have an important role in health promotion. Therefore, the study tries to seek the answer to the question: How do Nepalese teachers set themselves as healthy role models in terms of physical activity in promoting the health of students?

The Objective of the Study

The objective of this study is to find out the physical activity behavior among Nepalese teachers from the perspective of role modeling for health promotion.

Methodology

A cross-sectional survey research design was applied including quantitative methods. A multistage method of sampling was used in the selection of the province (Bagmati), districts (Rasuwa, Bhaktapur, and Chitwan), schools, and teachers. Both

purposive and random methods were used in various stages of sampling. As for the selection of sample schools, a proportionate simple random sampling procedure was followed from the list of schools in the part of each district. A total of 46 schools were sampled from the three districts. As for the selection of the sample teachers, a total sampling technique was applied within the sampled schools. A questionnaire was distributed to all available teachers at the secondary level of the sampled schools, thus teachers representing all secondary-school topics. Altogether 414 questionnaires were distributed to 46 schools in the three districts however, a total of 344 teachers returned the questionnaires (with a response rate of 83.09%) from the schools. The tool was pre-tested for content validity and reliability. Questionnaires for teachers were used as the tool. Quantitative data were analyzed using descriptive statistics including averages, chi-squared tests, and cross-tabulations. Statistical significance was set at $p < 0.05$. Ethical approval was taken from the Research Committee of the Dean's Office, Faculty of Education, Tribhuvan University.

Results and Discussion

The teachers were asked about their effort in exercise within the last 7 days. The exercise-related behavior of the teachers was identified as the following:

Table 1

Teachers' involvement in physical activities

		Frequency of involvement in physical activities within 7 days								Chi-square P-value
		More than 3 times		Twice		Once		Never		
		N	%	N	%	N	%	N	%	
District	Rasuwa	3	17.6	3	17.6	1	5.9	10	58.8	0.364
	Chitwan	45	36.0	12	9.6	21	16.8	47	37.6	
	Bhaktapur	58	28.9	23	11.4	29	14.4	91	45.3	
Sex	Male	91	36.8	30	12.1	35	14.2	91	36.8	0.000
	Female	15	15.6	8	8.3	16	16.7	57	59.4	
Age group	Less than 24	14	29.2	15	31.3	1	2.1	18	37.5	0.001
	25 to 29	32	34.0	11	11.7	12	12.8	39	41.5	
	30 to 34	21	29.6	2	2.8	18	25.4	30	42.3	
	35 to 39	18	33.3	5	9.3	7	13.0	24	44.4	
	40 to 44	6	17.1	3	8.6	8	22.9	18	51.4	
	45 to 49	6	30.0	0	0.0	2	10.0	12	60.0	
	50 and more	9	42.9	2	9.5	3	14.3	7	33.3	

Teaching subject	Health-Related	15	38.5	4	10.3	9	23.1	11	28.2	0.470
	Natural Science	34	30.6	15	13.5	16	14.4	46	41.4	
	Social Science	12	24.0	8	16.0	6	12.0	24	48.0	
	Language	29	28.7	7	6.9	16	15.8	49	48.5	
	Other	16	38.1	4	9.5	4	9.5	18	42.9	
Type of school	Community	15	24.6	10	16.4	9	14.8	27	44.3	0.412
	Institutional	91	32.3	28	9.9	42	14.9	121	42.9	
	Total	106	30.9	38	11.1	51	14.9	148	43.1	

According to table 1, in totality, 43.1 percent of teachers never exercised but a total of 30.9 percent of teachers exercised three or more times a week. The teachers of Chitwan were found to be more exercising than the teachers of Bhaktapur and Rasuwa. Moreover, 36.8 percent of male teachers exercised more than three times a week as compared to 15.6 percent of female teachers. The difference was found in never exercising males and females too; males with 36.8 percent but females with 59.4 percent.

The percentage of never exercising teachers was found to rise with the age group. A total of 37.5 percent less than 24-year-old teachers and 60 percent of 45 to 49-year-old teachers were found never exercising. But this was found lesser among 50 years and above aged teachers (33.3%).

On seeing the case of exercise for 3 or more times a week by teaching subject-wise teachers, it was found that health-related teachers exercised the most (38.5% exercised 3 or more times a week) among others but this data is also a low one. Moreover, a slightly more percentage of teachers from institutional schools exercised 3 or more times a week than the teachers from community schools.

A significant relationship between sex and involvement in physical activities was found among teachers. Similarly, a chance of a relationship between age group and involvement in physical activities was also seen among teachers.

Physical activity is important across all ages and should be integrated into multiple daily settings (World Health Organization [WHO], 2018). WHO (2018) further describes that:

“For many adults, the workplace is a key setting to be physically active and reduce sedentary behavior. The trip to and from work, activity breaks, workplace programs, and incidental activity all offer opportunities for increased physical activity throughout the working day and can contribute to increased productivity and reduction in injuries and absenteeism” (p. 17).

However, the data show that all the variables have an influence over teachers' involvement in physical activities, but very few teachers involve in such activities. Males exercise better than females, and early-aged teachers exercise better than seniors. But the rate of proper exercise is not satisfactory at all. School teachers need to exercise for 150 minutes a week to gain health benefits and become healthy role models. The most recent available global comparative estimates from 2010 indicate that worldwide, 23% of adults and 81% of adolescents (aged 11–17 years) do not meet the WHO global recommendations on physical activity for health (WHO, 2018).

Shalala (2002) noted that physically and mentally healthy staff are more likely to be energetic, enthusiastic, and effective teachers and serve as good role models for students. Children learn primarily by the examples set for them. Therefore, many parents want positive, healthy role models in schools. As faculty and staff work to achieve high-level wellness, the students may model these behaviors (Cox and Billingsley, 1996).

Involvement in physical activity leads to good health and appearance. Students also observe and learn such behaviors of the teachers, as Robbins (2003) says that much of what we have learned comes from watching models- parents, teachers, peers, motion picture and television performers, bosses, and so forth (p. 46). This view that we can learn through both observation and direct experience has been called Social Learning Theory (SLT) (Bandura, 1977).

The concept of role model comes in Albert Bandura's SLT which places a heavy focus on cognitive concepts. His theory focuses on how children and adults operate cognitively on their social experiences and how these cognitions then influence behavior and development. His theory is the first to incorporate the notion of modeling, or vicarious learning, as a form of social learning. In addition, Bandura also introduces several other important concepts, including reciprocal determinism, self-efficacy, and the idea that there can be a significant temporal variation in the time-lapse between cause and effect.

In 1986, Bandura renamed his SLT, Social Cognitive Theory (SCT), as a better description of what he had been advocating since the 1960s (Bandura, 1986). This name change was also likely the result of an effort to further distance himself and his theory from the behaviorist approach.

Bandura's work has inspired a massive amount of research on learning and behavior and has been enormously fruitful in developing techniques for promoting behavior change. Besides, his more recent work has been redirected from developmental psychology to the field of health psychology. Likewise, one predominantly fruitful area of investigation in which the SCT has been employed in the study of moral and value internalization among children. Indeed, it has been

argued that the greatest contribution of the SCT is its aid in understanding how children are socialized to accept the standards and values of their society (Johnston, O'Malley & Bachman, 1994). Indeed, this is a topic to which Bandura himself devoted extensive research efforts.

Imitation can be a powerful social learning vehicle. Role models provide a rich tapestry from which we weave key behavioral patterns over the lifespan. The earliest information available to children regarding what it means to be female or male comes from their parents (Perry, 1992). Parents are role models for children. During childish games, it is observed that children imitate and behave as per their parents. Afterward, the teacher in the school can set themselves as role models and impact students' behavior through their deeds.

Imitation plays an important role in the acquisition of deviant as well as conforming behavior (Bandura, 1986). New responses may be learned or the characteristics of existing response hierarchies may be changed as a function of observing the behavior of others.

According to Social Cognitive Theory, behavioral change is made possible by a personal sense of control. If people believe that they can take action to solve a problem instrumentally, they become more inclined to do so and feel more committed to the decision. People who believe that they can cause events may lead to more active and self-determined lives. Self-efficacy has come to be widely regarded as a mediator of treatment for a variety of outcomes including phobic behavior, smoking cessation, use of HIV prevention strategies, and improved health. According to Bandura (1997), treatment is successful when it creates expectations that a person's actions in a particular setting can be effective.

This theory provides an insight into understanding the stand of role modeling by a teacher during observational learning by a student. The theoretical closing of this review is that social modeling is not simply response mimicry; rather, students similarly generate new behavior patterns by going beyond what they have seen or heard. In addition to cultivating new competencies, social modeling affects motivation by instilling behavioral outcome expectations or measures of self-efficacy.

The role of the health promoter is to act as a "change agent" or an "advocate for health" in any setting be it a city, village, school, or organization. A health promoter works in partnership with members of the community to understand the community's goals for health and its potential for achieving health (McMurray, 1999). Can teachers be the change agent of health promotion? Yes. As per the Health Belief Model, a teacher can act as a reference group in modifying health behaviors (Naidoo & Wills, 2009). However, this is not fulfilled in the context of the physical activity behavior of the teachers in the schools.

Conclusion and Implication

The age and sex of teachers determine the level of physical activity. More than two-thirds of teachers do not meet the weekly recommended level of physical activity. More than two-fifth of teachers never exercise in a week. Teachers with an average level of healthy behavior and lifestyle in terms of physical activity neither make them healthy nor contribute to creating health role modeling in schools. There is poor practice and a situation of less physical activity than the recommended level. Therefore, an engagement in physical exercises on a regular basis by the teachers is recommended to become a role model teacher. An intervention by the school administration is necessary to offer health promotion activities including exercise, games, and sports in the schools for the teachers. The health education teacher in the school could be mobilized in designing such programs.

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