

Factors Influencing Physical Activity Participation among Secondary School Learners in Hlanganani Rural Area of Limpopo Province, South Africa

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ABSTRACT

Objective: To determine the factors that influence physical activity (PA) participation among secondary school learners in the Hlanganani rural area of Limpopo Province, South Africa.

Methods: A quantitative approach was used to examine factors that influence PA involvement among 151 students (mean age: 18.14 ± 1.81 years) attending three rural public secondary schools in the Hlanganani rural area of Limpopo Province, South Africa, who volunteered to participate in the study. Data were collected using validated structured questionnaires.

Results: Overall, the results indicated that preferring to do other things with their time, exercise is too hard, unsafe environment, and the lack of facilities and time to exercise were cited as major factors that deterred the students from participating in PA.

Conclusion: The findings of this study provide practical implications for promoting students' participation in PA in rural schools. It is recommended that schools should be provided with sport facilities that are proximal and safe for students. Additionally, PA programmes should be promoted through campaigns that would motivate more students to participate in view of its potential health benefits.

Keywords: Deterrents, learners, participation, physical activity, rural area.

INTRODUCTION

The beneficial effects of regular participation in physical activity (PA) are well documented in the literature. For example, participation in PA contributes to optimum growth and development (1), helps control body weight, reduces the risk of premature cardiovascular disease and type 2 diabetes, improves bone health, decreases depression and anxiety, improves quality of life and enhances self-esteem (2–4). Furthermore, participation in PA also improves self-image, mood invigoration, cognitive functioning, and the ability to manage stress as well as enhancing learning and memory, energy levels and sleep (5, 6).

Although the benefits of habitual PA are well documented in the literature, many youths are not achieving the recommended levels of PA participation (7), which according to the Centre for Disease Control and Prevention (8) is to accumulate at least 60 minutes of moderate-to-vigorous PA daily. Notably, in the

past decade the PA levels of adolescents have drastically decreased in South Africa. For instance, a study conducted by Reddy (9) found that 37.5% of the South African youth aged 12–18 years seemed to be insufficiently active, with 43% of the females and 30.5% of the males being insufficiently active, respectively. In another study, undertaken by Reddy *et al* (10), it was reported that the number of young people being insufficiently active had increased to 42%, *ie* 46.2% females and 36.7% males were insufficiently active. Sallis *et al* (11) also reported that the level of PA among adolescents declines significantly with age and that this deterioration occurs significantly more in females than in males. Similarly, Kahn *et al* (12) noted that the decline in PA starts at age 13–15 years. Another study conducted by Pratt *et al* (13) likewise found that PA significantly declined from age 15 to 18 years.

The conceptual framework underpinning this study is the social cognitive theory (SCT) as proposed by

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Bandura (14). The SCT has been widely used in sports and PA participation (7, 15, 16) and it postulates that students' participation in PA is shaped by the environment, behavioural and personal factors (7). In this regard, various researchers (17–19) have identified environmental, behavioural and personal factors that hinder students from PA participation. These factors include lack of sport facilities and equipment, illness and injury, loss of interest, time constraints due to school work, lack of self-discipline, discomfort, conflict with other interests, and lack of support from family and friends as well as safety concerns (17, 20, 21). Other factors may include inadequacy of the following enablers: money, self-motivation, information on PA, peer motivation, proximity to sport facilities, knowledge of PA, tiredness, dislike of exercising, supportive exercise partners, and energy (5, 18, 22–24).

Despite that several studies have examined the factors that influence PA participation in developed countries (25), such information is sparse in developing countries such as South Africa, particularly in rural schools. The few available studies undertaken in rural areas include that by Kubayi *et al* (26), which reported that rural students were more involved in sedentary activities such as listening to music, watching television, playing video games, and leisure reading than participating in PA. However, the factors that influence students' participation in PA were not reported in their study. Therefore, the present study aims to extend the literature and contribute to the body of knowledge on factors that influence PA participation among learners in rural areas of South Africa. It is envisaged that this study will provide baseline information upon which future studies on the promotion of PA in South African rural schools can be based. Succinctly, this study examined deterrent factors of PA participation among learners in the Hlanganani rural area of Limpopo Province, South Africa.

SUBJECTS AND METHODS

Sample

A total of 151 learners who were drawn from three public secondary schools in the Hlanganani rural area, Limpopo Province of South Africa, volunteered to participate in the study.

Instrument

A questionnaire developed by Tergerson and King (27) based on the Health Belief Model was used to collect data. The questionnaire consisted of three subscales:

perceived cues for action, perceived benefits and perceived barriers. For the purpose of this study, only one subscale (perceived barriers) was used. The subscale consisted of 12 items that required students to respond by using a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). A Cronbach alpha coefficient was 0.78, which was above the acceptable level of 0.70 as recommended by Nunnally (28).

Ethical considerations and procedure

Prior to data collection, the permission to conduct the study was granted by the Department of Education at Vhembe district, Thohoyandou (Ethics no: 14/7/R). This study was also approved by the Hlanganani circuit office at Hlanganani rural area, Limpopo Province of South Africa. The informed consent forms were obtained from all learners who participated in the study. All participants were informed that participation was voluntary and were assured of anonymity and confidentiality of their responses. They were also informed that they could withdraw from the study at any time without giving an explanation to anyone. Supervised data collection was undertaken by trained fieldworkers who were school teachers. To avoid the disruption of school lessons, data were collected after school hours with the permission of school principals. Participants were guided on how to complete the questionnaires independently which took them approximately 15–20 minutes.

Data analysis

The data were captured and analysed using the Statistical Package for Social Sciences (SPSS, IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corporation). Statistical methods such as means, standard deviations and percentages were used to analyse the data. An independent *t*-test was applied to examine gender differences. A probability level of 0.05 or less was used to indicate significance.

RESULTS

Table summarizes the factors that influence physical activity participation among learners in secondary schools. Boys indicated that their participation in PA was mainly influenced by the following factors: 'I want to do other things with my time' ($M = 3.34$), 'I think that exercise is too hard' ($M = 3.22$), 'I do not have a safe environment in which to exercise' ($M = 3.16$), 'I am not motivated to exercise' ($M = 3.12$), and 'I don't have a place to go and exercise' ($M = 3.06$). On the other hand,

Table: Factors influencing physical activity participation in schools

| Variable | Boys | | Girls | | All | | t-value |
|--|------|------|-------|------|------|------|---------|
| | M | SD | M | SD | M | SD | |
| I don't have time to exercise | 2.73 | 2.37 | 3.34 | 2.55 | 3.13 | 2.50 | -1.388 |
| I want to do other things with my time | 3.34 | 2.47 | 4.44 | 2.50 | 4.07 | 2.54 | -2.497* |
| I am too tired | 2.24 | 2.11 | 3.16 | 2.36 | 2.89 | 2.33 | -2.386* |
| I am not motivated to exercise | 3.12 | 2.45 | 3.06 | 2.38 | 3.07 | 2.39 | 0.146 |
| I don't have a place to go and exercise | 3.06 | 2.51 | 3.49 | 2.70 | 3.35 | 2.63 | -0.907 |
| I don't think that exercise will give me the results that I want | 2.59 | 2.17 | 2.82 | 2.29 | 2.76 | 2.45 | -0.586 |
| I don't enjoy exercise | 1.98 | 1.82 | 2.90 | 2.24 | 2.61 | 2.14 | -2.680* |
| I am not interested in exercise | 2.28 | 2.00 | 2.64 | 2.10 | 2.54 | 2.07 | -0.982 |
| I don't know how to exercise | 2.40 | 2.09 | 2.97 | 2.36 | 2.79 | 2.28 | -1.394 |
| I do not have a safe environment in which to exercise | 3.16 | 2.49 | 3.51 | 2.46 | 3.41 | 2.46 | -0.818 |
| I don't think exercise is important | 2.42 | 2.39 | 2.53 | 2.31 | 2.53 | 2.36 | -0.258 |
| I think that exercise is too hard | 3.22 | 2.42 | 4.15 | 2.46 | 3.83 | 2.58 | -2.079* |

*Statistically significant ($p \leq 0.05$).

M, mean; SD, standard deviation.

girls indicated that they were influenced by the following factors: 'I want to do other things with my time' ($M = 4.44$), 'I think that exercise is too hard' ($M = 4.15$), 'I do not have a safe environment in which to exercise' ($M = 3.51$), 'I don't have a place to go and exercise' ($M = 3.49$), and 'I don't have time to exercise' ($M = 3.34$). An independent t-test was used to examine the differences between boys and girls, and a significant difference was noted on the following variables: 'I want to do other things with my time' ($t = -2.497$, $p < 0.05$), 'I am too tired' ($t = -2.386$, $p < 0.05$), 'I don't enjoy exercise' ($t = -2.680$, $p < 0.05$), and 'I think that exercise is too hard' ($t = -2.079$, $p < 0.05$). Overall, learners indicated that they were influenced by the following factors: 'I want to do other things with my time' ($M = 4.07$), 'I think that exercise is too hard' ($M = 3.83$), 'I do not have a safe environment in which to exercise' ($M = 3.41$), 'I don't have a place to go and exercise' ($M = 3.35$), and 'I don't have time to exercise' ($M = 3.13$).

DISCUSSION

The purpose of this study was to determine factors that influence PA participation among secondary school learners in the Hlanganani rural area of Limpopo Province, South Africa. Overall, learners, in particular girls, cited the need to do other things with their time as a major barrier to PA participation. This finding is consistent with that of a previous study conducted by Tergerson and King (27), who reported that females perceived time as a barrier to PA participation more than males. This finding perhaps reflects the differences in family responsibilities assigned to boys and girls in a

rural setting, in which girls are restricted from participating in PA due to their preoccupation with household chores and domestic work that are usually assigned to them by their parents. Therefore, family responsibilities stifle the girls' opportunities to engage in PA and school sports (29). It should also be noted that adolescence is a stage wherein students devote most of their time to interpersonal relationships and education as they prepare for university admission; therefore, they might perceive PA involvement as a burden and waste of time.

Nonetheless, in an attempt to mitigate the influence of time as a barrier, opportunities for PA participation should be offered through physical education (PE) classes in schools. Previous research (27) has shown that PE is an ideal forum to encourage and motivate students to participate in PA. Unfortunately, PE is presently not formally taught as a separate subject in South African public schools. This is of great concern as the removal of PE from the South African school curriculum after independence in 1994 has had a negative impact among students in rural areas since it has resulted in decreased physical fitness, an increased sedentary lifestyle and low PA (26, 30). Therefore, there is a need to reinstate PE as an independent curriculum subject offering in South African schools. Additionally, if the PA programmes are designed based on learners' interest, as opposed to the interest of adults and teachers, students might be encouraged to participate in PA (27).

The results of this study further indicated that the schools lacked playgrounds where learners could exercise. It is well documented that in South African public schools, particularly in rural areas, learners have limited

access to standard sport facilities, which further lessens their interest in participation in PA and school sports. Therefore, it could be surmised that learners' participation in PA could be increased through the provision of standard sports facilities and equipment. The lack of safety was raised as another factor that influenced PA participation in schools. This finding agrees with the research findings of Yousefian *et al* (31), who indicated concerns regarding safety as a major deterrent to PA participation among youth. In their study, Yousefian *et al* (31) reported that students avoided going to the playing fields because of safety concerns. Similarly, Amosun *et al* (32) contended that living in an unsafe environment discourages learners from engaging in PA. Therefore, the present findings indicate the need for communities to design and implement intervention strategies that could ameliorate the impact of environmental factors which restrict students from participating in PA.

Furthermore, boys also indicated that they were not motivated to participate in PA. Tergerson and King (27) suggested that in an effort to motivate boys to be physically active, strategies that focus on activities which are competitive should be incorporated in their PA programmes. In addition to understanding the motivational determinants of PA participation, Butt *et al* (33) emphasized the need to highlight the importance of considering the barriers that are perceived to limit participation. Overall, results of this study revealed that girls perceived more barriers than boys. Therefore, in an attempt to motivate and encourage girls to participate in PA, teachers and/sport coaches should design activities that will allow female learners to socialize with their peers. Research has shown that PA participation is more likely to increase when students receive support from their parents and friends (7). These authors further contended that other stakeholders, such as school teachers, sport coaches and community members, should also support and encourage learners to participate in PA and school sports.

CONCLUSION

In this study, competing priorities, exercise being too hard, unsafe environment, lack of place to exercise, and lack of time were identified as deterrent factors for learner PA participation. The results of this study have practical implications for promoting PA participation in rural schools. The teaching of PE as a separate subject in the curriculum would promote PA participation among students and mitigate the influence of time as a barrier. Furthermore, better facilities for sport should be provided in rural areas with easy and safe access for

learners. Additionally, PA programmes should be promoted through campaigns that motivate learners to be active. In terms of attracting girls' participation in PA, teachers should incorporate activities that are fun filled, enjoyable and allow them to play with their friends. With regard to boys, teachers should design activities that are challenging and competitive.

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