

## Original Research



## Neighbourhood social environment on physical activity among adults in Sri Lanka: a qualitative inquiry

Shreenika De Silva Weliange<sup>1\*</sup>, Dulitha Fernando<sup>2</sup>, Jagath Gunatilake<sup>3</sup>

<sup>1</sup>Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka; <sup>2</sup>Emeritus Professor, University of Colombo, Sri Lanka; <sup>3</sup>Department of Geology, Faculty of Science, University of Peradeniya, Sri Lanka

\*Correspondence: shreenika@commed.cmb.ac.lk

DOI: <https://doi.org/10.4038/jccpsl.v24i1.8164>

Received on: 21 February 2018

Accepted on: 31 March 2018

### Abstract

**Background:** Adopting an active lifestyle is a complex behavioural process, which is influenced by various factors. Social environment characteristics are well recognized to influence health and physical activity (PA) behaviour. However, social environment appears to be the least studied area of PA.

**Objective:** To assess the social environment and its association with PA in Sri Lanka

**Methods:** A qualitative methodology was used. We conducted 6 focus group discussions among 58 adult residents, using a guide to facilitate the discussions and to collect the information. Purposive sampling was carried out to gather participants from areas differing in the level of urbanicity.

**Results:** Majority of the participants in the focus group discussions were females (51.7%) and many had secondary level education. Healthy social interactions and networks and unity and respect for person in a community were seen to facilitate PA. Undesired behaviour in the community hindered youth and women in being active especially at recreational places (playing sport or exercising) and on the roads (walking for leisure and transport). Attitudes and beliefs were also identified. The reasons for these social attitudes were due to lack of proper knowledge, the socio-economic gap and lack of policies for social equality.

**Conclusions:** Social environment is an important factor in promoting PA in Sri Lanka and needs to be addressed when planning to promote active living.

**Key words:** social environment, physical activity, attitudes, focus group, qualitative research

### Introduction

Physically active lifestyles are associated with improved health and quality of life. It is shown that regular physical activity (PA) has many physical and

mental health benefits such as reduction of all-cause mortality and prevention of cardiovascular diseases, type II diabetes, hypertension, several types of cancers, osteoporosis, anxiety and depression (1-2) Therefore, many health organisations have recommended 30

minutes or more of moderate-intensity PA at least 4-5 days a week (3-4). However, many people do not participate in regular PA (5) and the World Health Organisation (WHO) has attributed 1.9 million deaths to physical inactivity (6).

Adopting an active lifestyle is a complex behavioural process, which is influenced by various factors (7-9). Social environment characteristics are well recognized to influence health and behaviour (10) directly or indirectly through mediating mechanisms. However, social environment appears to be the least studied area of PA behaviour while psychological and built environment factors have been researched more (8). Another drawback is the lack of universally agreed definition of social environment, making it difficult to measure it and difficult to build and interpret a base of evidence. Physical activity occurs within the social environment boundaries of families, communities and neighbourhoods (11). Therefore, addressing PA interventions without considering the social environment is unlikely to produce any behavioural change. Some of the socio-cultural environments commonly cited in research which can be modified are social cohesion, social support, social inequalities, social discrimination and social norms (8). However, these social factors are most often interconnected and operate at multiple levels.

Social cohesion represents trust and solidarity among neighbours, along with social connectedness, interactions and exchange based behaviour (12). Social cohesion is defined as the 'capacity of the society to ensure the welfare of all its members minimizing disparities and avoiding polarization' (13-14). Several studies have shown that social cohesion was positively associated with walking (12), while perceiving their neighbours as being trustworthy was more likely to report meeting recommendations for walking (15).

Social norms and attitudes are also considered to be associated with PA. Individuals who perceived their neighbours to be active were more likely to report meeting recommendations for PA, compared to individuals who did not report their neighbours to be active (15-17).

Social support situations such as buddy systems, walking groups, and exercise contracts with another person have shown to increase the time spent on PA and frequency of exercise (18). Support received from

spouse, family and friends was seen to positively associate with PA (19). A cross-cultural health policy study involving participants from six European countries showed that the strongest predictor for being physically active was the social environment, with those perceiving low social support from their personal environment, more than twice likely to be sedentary compared to those who perceived high social support from family, friends, school and workplace (20). Although the levels of PA in different domains (work, travel, domestic and leisure) have been assessed in Sri Lanka (21), there is no existing research carried out in Sri Lanka to assess the social environment in relation to PA.

Although many quantitative assessments are made to assess the level of PA and social environment (12, 15-17), qualitative methodologies are if not more, as much as important to understand and identify the social environment associated with PA (22), as the understanding of social concepts differs according to the individual and culture. Oakes and his group (23) who worked on methodological issues in research on food and PA environments have therefore highlighted the importance of qualitative methodologies in understanding the social environment.

This qualitative study aimed to examine the social factors affecting PA among adults in the district of Colombo, with the objective of promoting PA in the future.

## Methods

It is acknowledged that focus group discussions (FGD) are especially useful in generating a wide range of experiences that are not very sensitive and generally expressed especially when stimulated by others (24). We selected FGD for generating in-depth information on the social environment affecting PA. The research was conducted in the district of Colombo which is in the Western Province of Sri Lanka. The Colombo district has a wide variation in the degree of urbanisation, ranging from rural areas to the most urban areas in Sri Lanka (25).

Residents aged 20-59 years residing in urban or rural areas of the district of Colombo for a continued period of not less than six months comprised the study population. This age limit was used since evidence suggests that the activity pattern and recommended

levels for activity differ for the younger and older age groups (3-4). Purposive sampling was carried out from areas differing in the level of urbanization to maximise the variation in the social environment for different levels of urbanisation. We conducted six FGDs (n=58) using the village headman to recruit the participants. A village head man is the government representative and caters to a population ranging from 3000 to 5000 persons, and has a good knowledge about the demographic profile of his area. The village headman was requested to purposively sample participants, so as to capture the diversity in, gender, socioeconomic status, religious affiliations and occupational backgrounds, ensuring an appropriate mix. Also, the availability, willingness to participate and ability to communicate well were some of the criteria used for selection.

The FGDs were held at a time and place convenient to participants, and almost all were held at community centres in the village. An FGD guide was used to facilitate the discussions and collect the information on the aspects of social environment affecting PA, the factors associated with social environment and recommendations for improvement. The discussions were conducted in the local languages. Data collection followed an iterative approach, responding to emerging themes and following up new lines of enquiry as appropriate. Each focus group lasted approximately one hour. The FGDs were recorded using digital voice recorders, transcribed and translated. The researcher who carried out the FGDs was a female accompanied by a note taker who was a male. The themes and quotes were discussed and shared amongst all the researchers. Data were analysed manually after translations. Data saturation was reached by the final focus group. We undertook a thematic analysis, using both inductive and deductive coding and exploration of themes. Quotes were selected to support explanation themes. Analysis also included unanticipated themes.

## Results

Table 1 shows that the majority of participants were females (51.7%) with an educational level of GCE (Ordinary Level) or less (53.5%). There were participants working in both the public and private sectors and also holding important positions in the village. A slightly smaller proportion of participants belonged to the younger age group 20-29 years (20.7%). Among the participants, there were public sector employees,

private sector employees, self-employed, retired from service and those looking after their households.

**Table 1. Socio-demographic characteristics of participants (n=58)**

Socio-demographic characteristic	No.	%
<b>Sex</b>		
Male	28	48.3
Female	30	51.7
<b>Age (in years)</b>		
20-29	12	20.7
30-39	15	25.9
40-49	14	24.1
50-59	17	29.3
<b>Highest level of education</b>		
G.C.E (O/Level) or less	31	53.5
Higher than G.C.E. (O/Level)	27	46.5

## Opinion on the effect of social environment on PA

Daily activity patterns were explored, and thereafter about the factors that influence their activity such as their own motivations, self determination to be active, their perceived barriers and social environment.

The participants stated that the social environment plays a significant role in PA behaviour. They reported that neighbourhood social environment was more important than the family environment or the social environment at work place. Social environment was noted to either facilitate or hinder PA behaviour.

“The way we behave depends mostly on the outlook of people in the community or neighbourhood. If my neighbours are positive towards my being physically active, it is easy for me to be active. If not, I would feel that I am engaged in something that is not regarded as normal. We are recognised and judged by the people in the community or neighbourhood. So, we have to adjust our activities accordingly.”  
(34 year old female clerk)

“I do agree that people are governed by the social context of the community they live in.” (48 year old male teacher)

However, the level of influence was different, depending on the gender, education and socio-economic position of the individual. The more empowered the people feel they are in the community, the less likely that they were governed by negative social factors in the environment that hinder being active in the neighbourhood.

### **Factors in the social environment associated with PA**

The participants expressed that quality of the social environment needs to be good to facilitate PA.

### **Social interactions, networks and undesired behaviour in the community**

Social interactions were a concept that emerged many times among the participants as a factor affecting PA. A village headman expressed that:

“If the community is united, the people would feel free to walk on the road. When people have divisions among themselves, they do not like to meet each other during walking or while engaging in PA in the parks, grounds or the beach. Parents too would not let their children walk in the neighbourhood alone when there is no harmony among the people.” (47 year old, village headman)

Statements on harmony, unity and respect were frequently found in the transcripts as factors affecting PA. One of the statements recorded was:

“Respect towards each other in the neighbourhood plays a major part in their PA behaviour. If we do not respect others in the community, we would not want to mix with them either in the day to day activities or in play. In some areas, the rich do not want to mix with the poor, may be assuming that they do not have good habits or that they are not clean.” (32 year old, preschool teacher)

The presence of negative aspects of these attributes in the community was seen as ‘social disruption’

negatively affecting PA behaviour. Presence of undesired people and undesired activities within the community was a factor affecting PA negatively. A very concerned female from an urban area who is a mother of teenagers pointed out that due to the undesired activities in the community she prevents her teenagers engaging in any activity in the park or beach and expresses her fears as follows:

“I have a teenage daughter and a teenage son. They want to go out and play in the park. But how can I send them out as I know that there are unwanted things happening near the park? There are people who are drunk and people who pass bad comments to young people passing by. Who knows what else is happening? My children don’t understand the gravity of these things, and I am seen as a bad mother. I do not have the time to go with them regularly as I am doing a small business at home. The beach, I think is the worst place. Unless an adult accompanies the children, no parent should send their children to play on the beach.”

Several concerned mothers from the same area agreed on the above statements with a lot of emotion.

The social networks that are available in the community such as community groups were also thought to foster a culture that would make people interact more with each other building the harmony and trust. Therefore, having strong social networks in the community was thought to have a positive effect on PA.

### **Attitudes, beliefs and norms**

Social attitudes, beliefs and social norms were also viewed by the participants as important factors associated with PA behaviour. Attitudes of the community, especially towards the females going out in the evening were very negative, while most of the participants agreed that these factors were affecting their participation in PA. Walking alone on the road especially after dusk was a factor identified as undesirable, mainly by the females in low socio-economic areas in the highly urban Colombo Municipal Council area. They are compelled to travel in a motor vehicle although not very affordable rather than walking for transport after work or for marketing, since they felt that it is not very safe to walk alone on the roads.

“My children have extra classes till late in the evening. So, even if I am ready to take them for a walk to the park or to the beach, when we come home it is late. Do you know what people would call us if I go out for a walk in the late evening with our daughters? We would be considered a bad lot of women. We have to safeguard ourselves and our children from getting bad labels. So, we do not go to the park or the beach unless my husband is able to accompany us.” (41 year old mother of a teenager)

Another important factor was on attitudes that people have towards being ‘active for transportation for day to day activities’. People of a certain social strata are expected to use motor vehicles for transportation. Use of personal motorised vehicle was seen as a symbol of social status.

“I usually go to office in my vehicle. On the days that I do not use the vehicle, I am asked by peers and security guards at the gate why I am coming to office by public transport and whether the vehicle is broken and so forth. It is all about the status. Had I gone in a cab, people in office would not be bothered to ask what happened to my vehicle.” (28 year old sales executive working in a private organisation)

A participant living in the urban sector said that it was considered the norm to go to the supermarket in a vehicle, or hire a three-wheeler rather than walking or cycling. This was seen as a status symbol. Therefore, most people tried to fit their behaviour to this expected norm rather than being active while marketing, which is even economically advantageous.

It was expressed that going to the supermarket in a vehicle or going for work in a vehicle were also seen as a social status symbol due to social attitudes and norms. People behave in a certain manner to live up to their social status. Their behaviour was seen to be governed by the status given by the society to different types of activity.

It was also interesting to note that leisure activity in public places and gymnasiums in attractive sportswear was seen by the participants as a trendy behaviour, marking it as a symbol of high social status. The participants also stated that more people like to engage

in leisure activity especially joining a gymnasium due to it.

“Doing exercise wearing these attractive sportswear and sports shoes is considered as very fashionable by the young.” (36 year old housewife)

Going to a private gymnasium was also seen as a status symbol, as only those who could afford the fee would go there, and people of the same status could socialise at the gymnasium. The participants expressed that there were not many public gymnasiums and even when available, did not have the equipment in working condition. It was also revealed that going to a public gymnasium was not as fashionable as going to a private gymnasium.

### Social discrimination

Another general theme that was identified as a factor affecting PA was humiliation especially of fat people walking along the road for exercise and attire in sportswear by some people in certain neighbourhoods. This too was especially identified by females.

“According to the doctors, I have a disease that makes me obese. I started walking along the road in the evenings. I got discouraged as people used to laugh at me and made comments at my body size. This verbal abuse is mainly targeted at females and more towards the obese. I think that there may be lot more others who have given up walking for exercise because of this type of humiliation.” (45 year old female)

A young female who was from a minority ethnic group endorsed discrimination as a factor contributing to PA saying that “discrimination exists more for certain ethnic groups”. Their own family members object females walking for exercise along the road.

### Social support and social groups

The support extended by the community for being active was highlighted by the participants as an encouragement towards PA. Participants expressed that if people are supported by others in the community, walking for exercise along the road or playing a game at the park is easier and comfortable especially for females.

“If we go in a group, there is not much sarcasm or verbal abuse. I know of a friend of mine who is in her forties who goes to the park to play ‘Elle’ (a ball game) with her friends. But I have experienced adverse comments by some men and women when we go and play in public places. They say that we are notorious and playful even in old age. Hence, even our family members would not like us to go out to play and exercise.” (38 year old female)

Having a young child accompanying them was seen as a positive aspect especially for females going to recreational centres or public spaces. Most men on the other hand did not think that there was any discrimination or sarcasm for men, but agreed with the fact that support from others encourages them to be physically active.

Different factors affect different individuals depending on their attitudes and norms towards behaviour, as described in dialogues. The social environment was also seen to affect the individuals directly or through their family.

### **Reasons for the current state of social environment and suggestions for modification to enhance PA**

Improvements in the existing social environment would definitely facilitate people participating in more PA across different domains of activity, as noted in the FGDs. **Lack of knowledge** regarding the importance and ways of being physically active emerged as the most common factor contributing to certain unsatisfactory social conditions in the environment for PA. Participants expressed that there is not much input to the community regarding the need to be active at all ages and in all domains (while at job, at home, during commuting and at leisure). Participants agreed that the majority of people in their neighbourhood believed that being sedentary is associated with a higher socio-economic position and higher status making people less active.

“Even I did not think it was necessary to have at least moderate activity for 30 minutes a day at least 5 times a week to avoid certain diseases. I was under the impression that if we are not obese, there is no higher risk of illness. I always thought that PA was necessary only to bring down the weight.” (29 year old bank executive)

The participants also stated that most people would not view being ‘active in day to day activities’ contributing towards better health. The lack of knowledge regarding health benefits of walking and engaging in moderate to vigorous activities for day to day activities like household chores and transport did not make people consider them in a positive manner.

The other reason identified was the socio economic gap within the community. Participants were of the view that unity and social networking among people in the neighbourhood would be more, if people were somewhat equal economically. However, most said that this was not under the control of the community, but were of the view that it should be a political and a governmental agenda to bring down the economic discrepancies of the people.

“The people have to feel that there is equity. The relatively poor should not feel that they are different from the rich and vice versa.” (54 year old male)

Another reason identified was the **lack of comprehensive policies for equity**. Participants stressed that a policy for equity should be implemented in all aspects of life to make the social environment conducive not only for PA but for everything.

The foremost recommendation was to increase the level of awareness among all groups and classes of people. The participants suggested that the young should be taught this at school and made to participate in activity at least while at school. They also suggested that different approaches be used to educate the people. Majority said that mass media could help in a big way as all groups of people have access to mass media. The education programmes carried out in the community alone was not thought to improve the knowledge among all people as only a selected group would attend such programmes. Participants also suggested that policies on being active, reducing inequity, and reducing ethnic and economic discrimination should be implemented both at local and national levels.

### **Discussion**

The social environment which affects participation in PA is generally a poorly understood area. There is also minimal evidence on the concept of social

environment especially in the developing countries. The findings from this study – one of the first to assess the social environment which affects PA have identified important factors in the social environment that affects PA. The results of this study are based on a qualitative inquiry carried out through FGDs. This is one of the first studies to use a social-ecological theoretical framework to understand the multiple potential influences of the social environment on PA among adults in Sri Lanka. For a qualitative investigation, the sample size in this study was relatively large. The limitations include the possibility of responding in a socially desirable manner. However, we believe this was minimal in the study, as the investigators were not known to participants and were not involved in service provision for the communities. The sample was recruited from within the highly urban, urban and the rural areas in the district of Colombo. Therefore the results capture a varied population. However, there might be a limitation in generalizing this to different socio-economic groups as the investigators did not stratify the selection of the groups according to the socio-economic level. However, this qualitative study is indeed hypothesis-generating, and can be used to carry out further research to confirm the present findings in a large population-based sample.

Several social concepts were shown to facilitate PA. They were unity, respect, social order, and networks within the community, social support and having social groups. These social factors have also shown to be associated with PA in previous research (12,15-16), and are described as protective social factors for PA (22). These protective social factors were social network, participation, social cohesion, informal social control, sense of community, reciprocity, trust and safety.

Integration of PA with daily life is a public health goal. However, certain social situations such as social disruption, discrimination and the presence of undesirable people and undesirable activities in the community were reported to hinder PA behaviour. Social norms, attitudes and beliefs were reported to either facilitate or hinder PA depending on the situation. The importance of changing the culture for activity is thus highlighted. The importance of public education and publicity for being active is therefore a foremost step in creating healthy activity cultures.

## Conclusions and Recommendations

These findings are thought provoking and give insight to the issue of PA in a developing country. In line with the socio ecological theory, it is clear that individual behavioural choices are either facilitated or constrained by wider aspects such as the social environment. Findings highlighted the need for creation of positive social environments through education/mass media and healthy public policy. These findings may be used for development of innovative interventions aimed at promoting active living among adults in the developing countries.

### Public health implications

Influence of the social environment in facilitating the promotion of physical activity was demonstrated in this study. It further highlights the recognition of social environment as important for promotion of physical activity.

## Author Declarations

**Competing interests:** All the authors declare that they have no competing interests.

**Ethics approval and consent to participate:** We obtained ethical clearance for the study from the Ethics Review Board of the Faculty of Medicine, University of Colombo (Reference No: EC-09-084) and verbal consent of each participant was obtained.

**Funding:** The study was funded by the University Grants Commission, Sri Lanka.

**Author contributions:** SDW was the principal investigator of the study. All authors were involved in conceptualising and interpretation of data. SDW was involved in data collection and analysis and DF and JG in drafting the manuscript. All authors revised it critically and gave final approval.

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