Young People's Perceptions and Experiences of Physical Activity in Apia, Samoa

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Abstract:

Physical inactivity is one of the main risk factors contributing to the prevalence of lifestyle diseases in Samoa. Lifestyle diseases are now the major causes of death in this Pacific island. As part of a Master's thesis in Sport and Leisure Studies, a study was carried out in Apia, Samoa, 2007 to investigate perceptions and experiences of physical activity at five secondary schools and a tertiary institution. A total of 801 respondents aged 13-50 years were surveyed. The survey data were analysed to explore the respondents' perceptions about physical activity and health, perspectives about barriers that stopped them from being active and sources of encouragement for being active. Most respondents reported a positive attitude towards physical activity and indicated that physical activity was important to improve health, get fitter and lose weight. Although, many respondents believed they were physically active, they did not meet the recommended national physical activity guidelines. Respondents reported a number of barriers to physical activity such as cultural, environmental and discomfort factors. More than half of them wanted to be more active and almost 56% wanted to lose weight, but need help and encouragement from friends and community. A coordinated response engaging all health sector partners is recommended to improve physical activity in the community. Such efforts would ensure that everyone accepts the responsibility of preventing and controlling the prevalence of lifestyle diseases.

Introduction

Physical inactivity is one of the main risk factors contributing to the prevalence of lifestyle diseases in Samoa. Lifestyle diseases are now the major causes of death in this Pacific island. In this section, the research reviewed is based on physical activity and lifestyle diseases in Samoa. Although there is a great need for such research, there remains a dearth of research with regards to considering levels of physical activity in Pacific countries such as Samoa. [1,2,3]

Increasing rate of physical inactivity

In 2005, physical inactivity was linked to more than 35 million deaths in the world caused by non-communicable diseases.[4] Physical inactivity was considered one of the main risk factors contributing to the prolonged effects of obesity and related diseases in both developed and developing countries.[5,6,7] Furthermore, physical inactivity appears to be more prevalent in urban areas compared with people in rural areas.[6,8,9] For instance, in Apia, two in 10 (21%) did very little or no physical activity, almost three in 10 (28%) people were inactive compared with one in 10 (15%) people in rural areas, and two in 10 (27.3%) females were less active compared with one in 10 (14.8%) males. [(9)] The trend in decreased physical activity levels is caused by an increase in less active forms of recreation, alternative modes of transport and an increase in urbanisation; in short, lifestyle factors. [2,10,11,12] Combined with non-communicable diseases it has become

the greatest health problem in most countries in the world[4] particularly in the Western Pacific region such as New Zealand among Pacific peoples. Based on the combined results of three SPARC surveys, physical inactivity rates of Pacific peoples have increased substantially by 17% since 1997.[13,14]

Demographic profile of Samoa

In 2007, the population of Samoa was estimated at 184,650.[9] The World Health Organization (2005) projected that young people under 24 years will make up over 60% of the total population (193, 000) in 2009. Almost a quarter of all people live in the Apia Urban Area (AUA; the location of this study).[15]

Increase in lifestyle diseases

According to the Ministry of Health [Samoa] 2005/06 report, the leading causes of death between 1999 and 2002 were diabetes, cancer, hypertension, chronic low respiratory diseases and ischaemic heart diseases.[8,16] Circulatory and respiratory diseases were the two leading causes of death in Samoa.[8] The rate of diabetes increased from 9.8% in 1987 to 23% in 2001 and the obesity rates nearly tripled from 25.5% in 1978 to 50.3% in 1991 and 67.5% in 2001.[17] The trend is akin among Pacific peoples in New Zealand as well.[18,19] Significantly, these results suggest that the prevalence of diseases related to unhealthy diets and sedentary lifestyles appears to have increased or worsened. Similarly, the trend is prevalent among Pacific peoples in New Zealand[20] and throughout the Western Pacific region[21,22,23,24]. For instance, in New Zealand Pacific peoples were more likely to be diagnosed with diabetes and receive medical treatment compared with the total population.[18] These figures portray a grim picture of how prevalent lifestyle diseases have been in Samoa.

The worst statistics are for urban Samoans, particularly women. According to The Samoa Human Development Report [8,9] over half (52.7%) of the Samoan population was obese. Obesity was more common in Apia (61.2%) compared with rural Upolu (56.9%) and Savaii (52.8%), with the rate higher for women than men.[9] Six in 10 (67.4%) females were estimated to be obese compared with four in 10 (48.4%) males.[8] Waqa & Mavoa (2006) reported in their study a similar trend among young people in forms 3 and five in three schools.

Research questions

As was discussed earlier, people who do not engage in enough physical activity are most likely to develop lifestyle diseases and die early or suffer a reduced quality of life. The cost of doing nothing is clearly unacceptable.[25] Interventions can be cost effective and inexpensive.[25] For these reasons, the research questions were:

a. What are Samoan people's perceptions and experiences of physical activity?
b. What barriers make it less likely that they will participate in physical activity?
c. What factors would make it easier for Samoan people to participate in physical activity?

Methods

This survey was undertaken with a researcher from Samoa. A pilot study was conducted, and then participants were selected and recruited. Four randomly selected secondary schools and a tertiary institution in Apia provided the participants for the survey.

Staff at the participating education facilities distributed the surveys to the respondents to complete. A Samoan version of the survey was made available to those respondents who preferred to fill out the survey in this format but a majority chose to complete the survey in English. The surveys were completed by a total of 801 respondents aged between 13-50 years (Table 1). The survey included questions that explored perceptions about physical activity, health, barriers to physical activity, sources of encouragement and demographic trends.

The survey data was analysed descriptively by using Excel 2007 and SPSS. The purpose of the analysis was to explore the respondent's perceptions about physical activity and health, perspectives about barriers that stopped them from being active and sources of encouragement for being active. In general, the gender and age differences were not statistically significant.

This section presents key results of the survey data drawn from three sections of the survey. The first section of the survey was related to peoples' perceptions about physical activity. The second section included three questions which were focused on the respondent's perceptions about their personal health and weight. The third section focused on the respondents' views about physical activity patterns, barriers and enablers to participation in physical activity.

The majority of the respondents were in the 13-17 years age group (76%) and two thirds were females (Table 1). *The sample of between 696 and 771 vary for most questions depending on how many participants answered that question.*

Table 1 Total number in sample by age and gender

Gender	n	13-15	16-17	18-24	25-34	35-49	> 50	No response
Female	529	42%	40%	12%	2%	2%	1%	1%
Male	230	32%	42%	22%	1%	1%	0%	1%
No response	42	7%	7%	2%	0%	2%	2%	79%
Total	**801**	**37%**	**39%**	**15%**	**2%**	**1%**	**1%**	**5%**

Findings

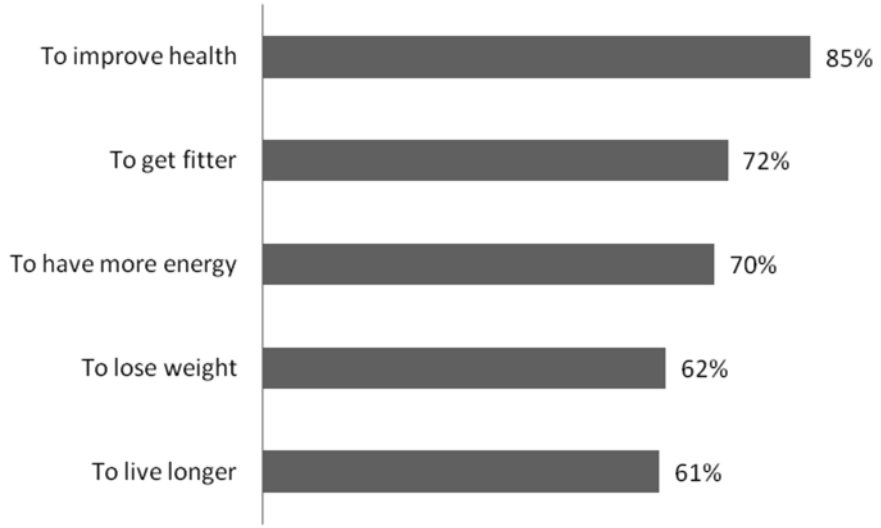
This section presents key results of the survey data. Overall, the results indicate that the respondents have a positive attitude to physical activity and health. However, the respondents are not physically active enough but a significant portion reported that they intended to be more active over the next six months. Further, the respondents reported that cultural, environmental and discomfort barriers were most likely to affect their participation in physical activity. On the other hand, the respondents' reported that their friends

and school were a main source of encouragement to being physically active.

A majority of the respondents valued physical activity and they believed that they were physically active enough to keep healthy. For example, 90% of the respondents rated their health good, very good or excellent.

Further, a majority of respondents (76%) agreed that non active people were more likely to develop health problems. When asked why physical activity was important, the survey respondents reported that they wanted to improve their health, get fitter, have more energy, lose weight and live longer (Figure 1). More than a third of respondents believed that they were a little overweight and over a half indicated they wanted to lose weight.

Figure 1: Respondents' reporting of reasons why physical activity is important



Almost three quarters of the respondents believed that they were getting enough physical activity to keep healthy. However, only 32% achieved 30 minutes of physical activity over five or more days, out of seven, in total. In spite of knowing the risks associated with inactivity, well over two thirds may be at risk in the future of developing lifestyle diseases because they are not doing enough physical activity.

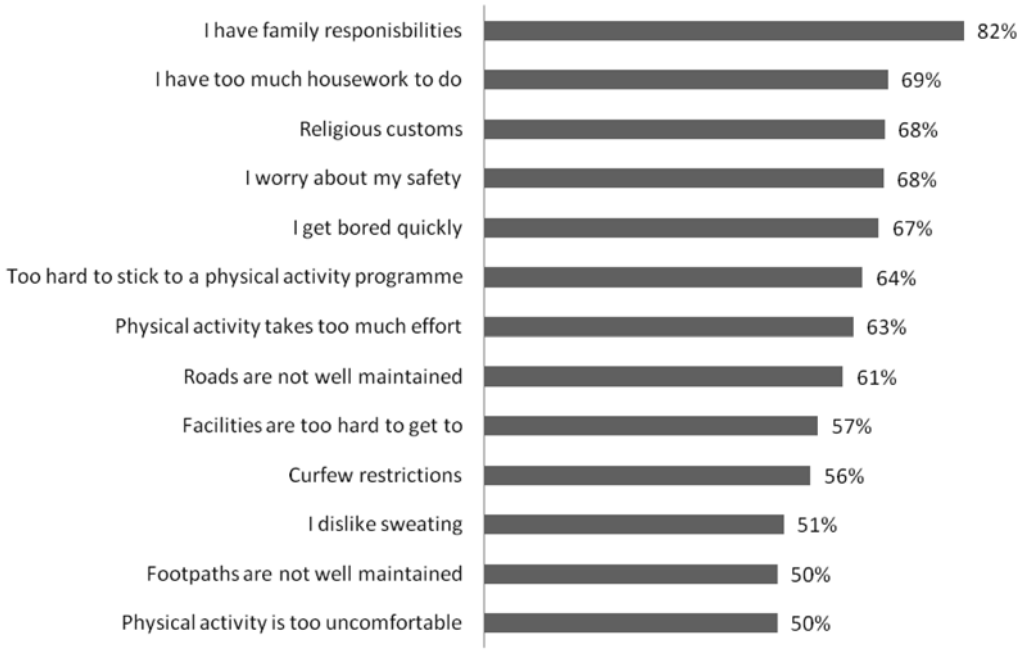
The respondents reported that barriers to physical activity included family, religious and environmental factors, as well as views of physical activity as boring or uncomfortable. A significant portion of the respondents believed that cultural barriers such as family, housework and church were the main barriers that affected their participation in physical activity. For instance, well over 80% of respondents believed that family duties were a major barrier to being physically activity. Also, village curfew restrictions were a constraint to over half of respondents to being physically active.

An assortment of discomfort issues such as boredom was a barrier to participation. Over two thirds (67%) of the respondents appeared to get bored easily with physical activity programmes. Further, less than two thirds thought it was too hard to stick with a physical activity programme and 50% found physical activity too uncomfortable, and almost two thirds believed that physical activity takes too much effort. Although the differences was not significant, discomfort barriers related to physical activity appear to affect slightly more males than females.

A number of environmental factors were reported as barriers to participation. Half of respondents believed that safety, particularly from dogs were barriers to physical activity. Safety was an issue for almost three quarters (72%) of females compared with over half (57%) of males. The respondents (61%; 50%) also indicated that roads that were not maintained and no footpaths was a barrier to being active, respectively.

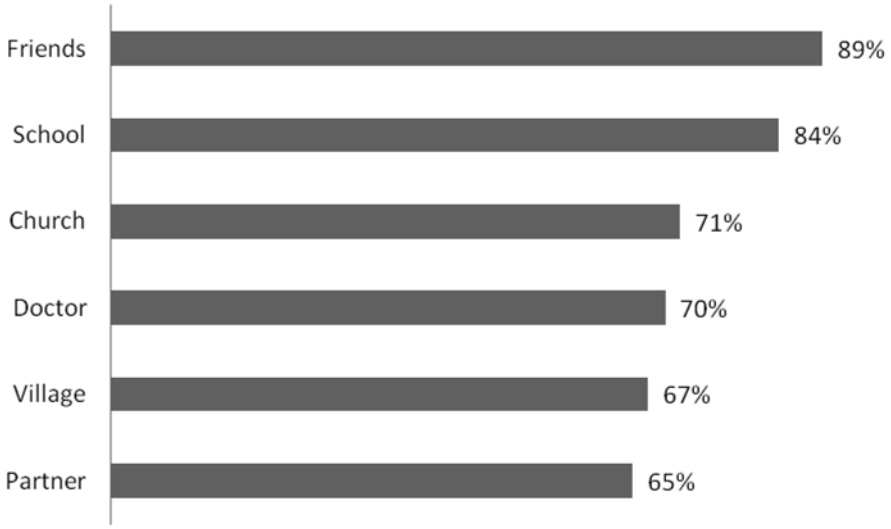
The assortment of factors that inhibit physical activity clearly points to the need to consider interventions on a variety of fronts. The evidence shows that respondents could be more active if cultural, discomfort and environmental constraints were managed to accommodate their physical activity needs.

Figure 2: Respondents' reporting of barriers



Respondents reported they are likely to engage in physical activity if they are encouraged by their friends, school, church, doctor, village and partner. Almost three quarters of the respondents on average indicated that friends, school, church and village encouraged them to be physically active (Figure 3). Eighty nine percent reported that their friends encouraged them to participate in physical activity and 84% reported encouragement from school. Although, the doctor, village and partner were less significant than friends and school in being active, around two thirds of respondents reported they were encouraged to be physically active by the doctor, village and partner. The results suggest that respondents are most likely to improve their physical activity levels if their community is supportive.

Figure 3: Sources of encouragement to be physically active



Discussion

Perceptions and experiences of physical activity

The findings indicate that Samoan people, particularly young people have a positive attitude to physical activity and health but they are not active enough. They believed that physical activity was important in their lives for three main reasons. The first reason is that physical activity was important to improve health[26] to get fitter, to lose weight, to have more energy and live longer. The second is that they believed that non active people were more at risk of developing health problems and they appeared to understand the correlation between disease avoidance and physical activity. Thirdly, they believed that they were active enough to be healthy, a key factor in preventing life-style diseases. As already mentioned, Samoan people appear to understand the health risks linked to physical inactivity and they are most likely to engage in physical activity to get fit, to have more energy and to improve their health. However, subsequent findings showed that a majority of respondents were not active enough although they believed that they were.

Samoan people value the importance of physical activity to improve health. Yet, the findings show that a majority failed to achieve the recommended guidelines of 30 minutes physical activity for five or more days a week. A trend that appears to be similar to physical activity patterns in other Pacific countries. [27] Furthermore, walking was more popular for both male and female groups than hard physical activity. The survey results as a whole suggest there is a significant gap between what respondents believe is enough physical activity to be healthy and what they actually do. However, a probable set of factors that could explain why most Samoan people in the study did not meet national physical activity guidelines is strongly linked to cultural, environmental and discomfort barriers.

Barriers that make it less likely Samoan people will participate in physical activity

The findings suggest Samoan people would like to be more active but a mix of cultural, environmental and discomfort barriers related to physical activity could interfere with their participation. The evidence suggests that their physical activity levels may not change over time unless some of the barriers are addressed, particularly the more common barriers.

Cultural barriers that affected the respondent's participation were related to family, housework, church, curfew restrictions and physical discomfort. The survey results suggest that a majority of the respondents appear to be affected by domestic duties and church. Family responsibilities were the most important barrier, affecting 82% of the respondents. Housework was the second most common barrier, followed by religious practices both of which affected at least two thirds of the respondents. Cultural aspects that had less influence included curfew and clothing restrictions.

Environmental barriers also affected the respondent's participation in physical activity, particularly safety, roads and facilities. Of less importance were footpaths, street lighting and transport. Several environmental factors had a greater influence on females than males. These factors included safety related to troublesome dogs and poorly maintained roads. Lack of recreational facilities also emerged as a barrier for well over half the respondents.

Discomfort factors related to physical activity such as boredom, effort, comfort and sweat were also barriers to participation. The survey revealed that 67% of the people got bored quickly with physical activity programmes, and 50% appeared to dislike physical activities that were uncomfortable. Also, almost two thirds of the respondents surveyed found it difficult to stick with a physical activity programme.

While not statistically significant, discomfort barriers appeared to affect males more than females. Interestingly, under half of the respondents reported that neither a lack of transport or being overweight were barriers to being physically active.

Factors that would make it easier for Samoan people to participate in physical activity

The survey results suggest that there is a lot of encouragement for the respondents to be physically active. The most important groups that encouraged the respondents to be active were friends, school, church, doctor, village and partner. Both the doctor and village were also clearly influential for Samoan people who gave some or a lot of encouragement. Although the partner was the least influential of these six groups as stated already, most of the respondents were also encouraged by them to be physically active. Unfortunately, this section in the survey did not include a question about parents and family as a potentially influential group which was a limitation of the study. Therefore, future research should include a question about parents and family in the survey. However, as already mentioned, social institutions such as friends and school have a strong influence in the lives of Samoan people and they could play an active role in getting more people active.

Furthermore, the findings suggest that low impact, low intensity forms of physical activity such as walking might be most appealing or appropriate than hard physical activity. For instance, just under half of respondents reported walking at a quick pace on at least five days during the past week, far fewer reported engaging in hard physical activity. In addition, a high percentage reported that activities that induced discomfort were barriers to doing physical activity.

Lastly, a multisectoral approach could reduce the barriers to participation. Overall, the research results suggest that a multisectoral approach has strong potential to reduce and manage many of the barriers to physical activity. A collaborative approach that is embraced by all the organisations that are directly and indirectly related to the health sector including government, schools, village, church and other informal

social institutions (e.g., friends and family) could encourage more people to participate in physical activity.

Interventions in some areas, however, are likely to be more straightforward than others. For example, interventions related to cultural barriers could be more problematic if they challenge core beliefs related to a Samoan view of the world.

Some key environmental and discomfort barriers appear to be connected and could be simultaneously resolved with direct government intervention. For example, a multisectoral approach could provide adequate footpaths, roads and transport to accommodate people's physical activity needs and, more importantly, promote a safe environment to encourage more people to get active. Some of the discomfort factors (such as a dislike of sweating) may be related to the lack of facilities for showering after exercise. [26] At the same time, the geographical location of facilities that are not within walking distance of the majority of the population, fear of roaming packs of dogs and a lack of footpaths may all combine to act as a deterrent to engagement in both informal and organised forms of physical activity.

Given the current lack of facilities and costs associated with building and maintaining these, it might be more effective for the government to enhance people's ability to walk safely (via provision of footpaths and controlling dogs, etc.) rather than focus on Western-style organised fitness classes or sporting opportunities. If this was the case, the educational emphasis could focus on encouraging people to walk or engage in other low impact, low intensity activities for at least 30 minutes at least five times a week.

Limitations

Future research should be comprised of a battery of tests to measure body weight, blood pressure including pedometer tests and a physical activity audit. That is, in this study, the data related to body weight and physical activity levels were not measured or tested by the researcher in a controlled environment. The data was self reported. Therefore, testing and audits are more likely to provide an accurate account of people's BMI, blood pressure and physical activity levels than self reported results. Similar tests were adopted in physical activity and dietary studies undertaken in Fiji and Tonga. [22] [23] [24]

Conclusion

The findings clearly show that physical activity is important to most Samoan people. However, the findings revealed that they did not achieve the national physical activity guidelines. While the findings suggest that most people would like to be more active; cultural, environmental and discomfort barriers make it more difficult. The assortment of factors that inhibit physical activity clearly points to the need to consider interventions on a variety of fronts.

A multisectoral approach can provide culturally appropriate and relevant programmes that support people to improve their health, get fit, lose weight and have more energy. A multisectoral health sector response involving the government, private sector and other community groups can play an active role in promoting physical activity. The themes that were drawn from the survey clearly indicate that a coordinated response that includes the church, village, doctor and social groups such as friends are most likely to get more people active.

However, more research is needed to explore ways to determine a culturally appropriate Samoan model of physical activity, which is collective, collaborative and beneficial to all parties. As already discussed earlier, in the first instance a coordinated response can address the environmental and discomfort barriers more effectively and provide programmes that are relevant to the respondents and fit into the structure of their daily lives. Further exploration is needed in relation to the levels of physical activity that are involved in their daily contributions to the family and village via tasks such as sweeping, cooking and plantation work.

In closing, the findings highlight significant areas that need to be addressed to help decrease the prevalence of lifestyle diseases linked to physical inactivity in Samoa. As discussed earlier more research about physical activity in Samoa is greatly needed to increase the pool of knowledge that is currently lacking in Pacific countries [1]. Further, evidence based research can better inform government health policies and reforms to reduce the increasing rate of life-style diseases affecting the Samoan peoples today.

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"Flowers are like human beings...
they thrive on a little kindness."

Fred Streeter