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Being active for later life: What determines physical activity and exercise participation among retired female government servants in Sri-Lanka?

Samantha Nanayakkara, Ian Culpan, Jane McChesney and Jack Dzenis

School of Sciences and Physical Education, University of Canterbury, New Zealand. samimmi@gmail.com

Abstract

Gentle exercise can help reduce many of the health risks of old age, and enable senior citizens to stay mobile. Unfortunately, it can be seen that Sri Lankan older women are generally not heeding the message. The purpose of this paper is to examine what specific social practices accomplish the physical and ideological exclusion of elderly Sri Lankan women from participation in physical activity and exercises. Randomly selected retired female Sri Lankan government servants (N = 300) have been taken as the research sample. The empirical component of this paper uses a questionnaire and semi-structured interviews to investigate the research proposition. The main questions related to this research address the issue in two ways. First, it emphasises the main reasons why female retired government servants do or do not participate in exercise and physical activity. Second, it identifies the perceived obstacles they are facing in participating in physical activity and exercise. The results revealed that retired female government servants feel they do enough physical activity and exercise to benefit their health and they regard physical activity and exercise as important. Finally, specific attention has been paid to how obstacles on physical activity and exercise participation by retired female government servants can be overcome, and how those who are not interested in physical activity and exercise can be encouraged to become involved.

Key words: Benefits, elderly females, exclusion, obstacles, physical activities, exercise

Introduction

Physical inactivity is a major public health challenge in the contemporary world and a recognised global pandemic (Centers for Disease Control and Prevention, 2004; Kandula & Lauderdale, 2005). Physical activity and engagement in exercise sport have a significant influence on improving the quality of life of older people (Centers for Disease Control and Prevention, 2004). In particular, older people have much to gain from being physically active, capitalising on the potential benefits to mental and physical health

and well being (Bauman, 2004). Health improvements in their lives are easily noticed even at the very beginning of physically active programmes (Centers for Disease Control and Prevention, 2004).

Not only, have sedentary older people benefited but it is a cost effective alternative for using medication, and there is an increase in life expectancy if they are able to maintaining their physical activity or exercise programme (Centers for Disease Control and Prevention, 2004). As the ageing process continues to reduce the physical growth of the body, a wide range of physical activity and exercise methods such as stretching, warming up and cooling down, can be used. Physical activity or exercise programmes could involve different levels of intensity but a not necessary to maximise health benefits (Saisan et al., (2009). Saisan et al., (2009) also point out that, when inaugurated at a basic level and then continued; physical activity and exercise makes a significant contribution to preventing injury in older people. Being active helps to reduce the health risks that are particularly associated with old age (Sriskantharajah and Kai, 2006). Although, it is debatable whether to use the chronological year to define the older age; the World Health Organisation (WHO) has not adopted a standard criterion but generally use chronological 60+ years to refer to the older population (WHO, 2010). Also, Department of Pensions in Sri-Lanka use age 60 years or over to determine the eligibility for the Sri Lankan government servant's pension scheme (Central Bank, 2006). Physical activity and exercise is vital for healthy ageing and when followed gently at reduced intensities is beneficial for the elderly.

Physical activity can help senior citizens to stay healthy and independent throughout their lifespan; currently, this is not happening in existing patterns of physical activity participation. Singerland et al., (2009) assert that retirement offers opportunities for changes in physical activity patterns that may influence the health of older adults. Studies show that the opportunity to participate actively is stratified according to socio-cultural characteristics (Bourdieu, 1991; Gruneau, 1975; Loy, 1969; Scheerder et al., 2005). In addition, Asians are least likely to participate in physical activity than Caucasians, African Americans, or the overall U.S. population (Centers for Disease Control and Prevention, 2004; Kandula & Lauderdale, 2005). Physical activity in particular, is gender specific and females are expected to do domestic work giving them less leisure time for physical activity and exercise than males (Cortis, 2009). To date there has been no research about Sri-Lankan female adults' participation in physical activity, and exercise and therefore, a more in-depth study is needed to investigate participation rates and the reasons for, or lack of participation of females in physical activity and exercise programmes for the elderly.

The aims of this research is to determent of extent of physical activity and exercise participation of a group of elderly Sri Lankan women and examine what specific social practices lead them to possible physical and ideological exclusion. These are the following research questions:

1. Why do Retired Female Government Servants in Sri-Lanka either participate or abstain from physical activity or exercise?
2. What are the perceived obstacles of Retired Female Government Servants (RFGS) in Sri Lanka to participation in physical activity or exercise?

Method

The group to be investigated are Retired Female Government Servants in Sri-Lanka (RFGS). Six hundred respondents were selected randomly from the 2010 (January) list of Sri Lankan female government pension receivers, obtained from the district secretariats throughout the country. First, invitation letters to participate in this research along with the consent forms were sent to above mentioned randomly select 600 RFGSs by post. Researcher's self-addressed and stamped return slips were enclosed with the invitations. Four hundred and sixteen return slips were received and demographic data were collected from these returned slips. Secondly, a designed questionnaire was implemented to gather exploratory data consisting of 25 items containing closed and open-ended questions. This questionnaire and the instructions were posted to previously respond 416 RFGSs along with researcher's self-addressed and stamped envelopes to return. This questionnaire allowed the researcher to gather highly structured, specific data from the respondents on their feelings, thoughts and opinions about physical activity.

Respondents were advised to keep the definitions for the physical activities in mind when answering the questions. Definitions for the physical activities for older people were adopted from the National Physical Activity for Older Australians Discussion Document (NPAFOADD) NARI, (1996), which contains accepted guidelines for appropriate levels of activity to gain physical fitness. Following definitions were adopted:

1. ***Physical activity:*** "Any bodily movement produced by skeletal muscles that requires energy expenditure and produces progressive health benefits". (National Institute of Health, 1996). Physical activity includes everyday activities like walking to the shop or gardening through to a wide range of organised activities, such as exercise classes.

2. ***Moderate level physical activities:*** Physical activity at a level that causes your heart to beat faster and some shortness of breath, but that you can still talk comfortably while doing (Glasgow, 2005).

3. ***Vigorous physical activities:*** Physical activity at a level that causes your heart to beat a lot faster and shortness of breath that makes talking difficult between deep breaths (Glasgow, 2005).

We received three hundred and seven return slips from the RFGSs. Seven return slips which were incomplete and contained obscure writing were excluded from the study. Therefore, three hundred participants (N=300) were selected as the sample of this study and their answers for the questionnaire were taken into consideration.

In addition, from the list of RFGSs those who provided telephone numbers for interview, 50 respondents were selected randomly (eg. every alternative sixth person in the sample list has taken as a respondent). It was revealed that making interviews via telephone was the successful method to collect data for this study due to limited funds allocated to the study. Nevertheless all researchers primarily were residing in New Zealand; the main researcher was a native Sri-Lankan. To efficiently consume the time she collected data during her annual visit to Sri-Lanka. Therefore, telephone interview has been selected as the appropriate data collection method for this study.

One to one semi-structured interviews were conducted by telephone with above mentioned randomly selected 50 respondents. Respondents were encouraged to discuss freely what was important to them in relation to engaging in physical activity, their health and social lives. Interviews lasted for about 30-40 minutes and were audio taped and transcribed. The main researcher was fluent in both Sinhalese and Tamil languages. Ethical consideration was highly respected in this study. Therefore, confidentiality of responses was guaranteed to all respondents by coding the data and securely stored in password protected computer facilities.

The structure of the data analysis in this study was twofold. Firstly, in order to determine whether the respondents can be differentiated and described based on the variables regarding socio-cultural status, life styles, active behaviour, life circumstances, the data comparisons were tested using the chi-square tests in SPSS version 17.0. A p value of less than or equal to 0.05 for a two sided test was considered statistically significant (Kleinbaum el al., 1982; Portney and Watkins, 2000). Subsequently, a Chi-square independence analysis was performed. Secondly, qualitative data analysis was performed using thematic analysis.

Results

In order to achieve the objectives of the study, the following hypotheses were administered:

Hypothesis 1: Age and physical activity

H_1 : Age is related to the RFGS's physical activity

Null hypothesis: Age is not related to the RFGS's physical activity

There was a significant difference between age and RFGS's in regards to involvement in physical activity ($\chi^2 = 4(N = 300) = 204.537, p < .05$).

Hypothesis 2: Educational level and physical activity

H_2 : Educational level has an influence on RFGS's physical activity

Null hypothesis: Educational level has no influence on RFGS's physical activity

There was a significant difference between educational level and RFGS's in regards to involvement in physical activity ($\chi^2 = 4(N = 300) = 19.954, p < .05$).

Hypothesis 3: Occupation and physical activity

H_3 : Occupational levels have a substantial influence on RFGS's physical activity

Null hypothesis: Occupational levels have no substantial influences on RFGS's physical activity

There was a significant difference between occupation and RFGS's in regards to involvement in physical activity ($\chi^2 = 4(N = 300) = 24.034, p < .05$).

Hypothesis 4: living area and physical activity

H_4 : Living area is related to the RFGS's physical activity

Null hypothesis: Living area is not related to the RFGS's physical activity

There was a significant difference between living area and RFGS's in regards to involvement in physical activity ($\chi^2 = 4(N = 300) = 57.253, p < .05$).

Hypothesis 5: Monthly income and physical activity

H_5 : Monthly income has an impact on RFGS's physical activity

Null hypothesis: Monthly income has no impact on RFGS's physical activity

There was a significant difference between monthly income and RFGS's in regards to involvement in physical activity ($\chi^2 = 4(N = 300) = 9.978, p < .05$).

Profile of respondents

The description of the physical activity patterns among the RFGSs focused on the proportion of reportable physical activities that was included in specific categories. These included 'always', 'sometimes' or 'never'. The results are shown in Figure1:

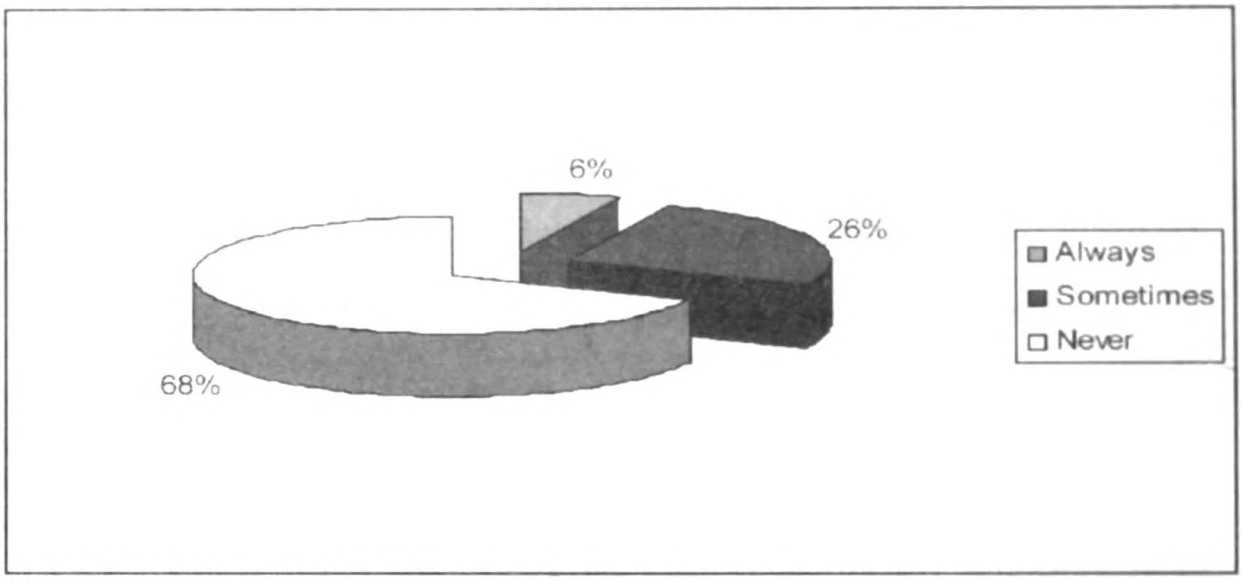

Figure 1. Frequency of participation in physical activities

One of the major findings of this research was that only 6% of the RPFSs participated in physical activity levels as defined by the NPAFOADD (1996). A total of 26% took part on a sometimes basis in physical activities. In addition 32% of the respondents participated in physical activities. Sixty eight percent of the research sample was unable to be involved in any physical activity.

In this sample, the proportions of ethnicities were: Sinhalese 67.0%, Tamils 23%, Muslims 8.0% and other 2.0%. Accordingly, only 34.9% of Sinhalese and 28.9% of Tamil RFGSs were involved in physical activity. Muslim RFGSs were identified as the ethnic group having the least (4.2%) involvement in physical activity.

Among the sample of retired female government servants, 23.0% were able to do light physical activities such as walking, and 7.0% were able to do moderate physical activities such as swimming and gardening. Only 2.0% were able to continue vigorous physical activities.

The age group of 60-65 was more likely to get involved in physical activities than any of the other age groups. Among the respondents of the age group 60-65, 79.2 % were involved in physical activities. Only 1.5% of the 66-70

age group of RFGSs took part in physical activities. None of the RFGSs in the age groups over 70 participated in any physical activity (Table 1). To test the null hypothesis of "age is not related to the RFGS's physical activities" the results revealed Pearson Chi- square test $\chi^2 = 4(N = 300) = 204.537$, $p < .05$. Therefore, the null hypothesis was rejected and the findings suggest that RFGSs are matured in age; they are less likely to get involved in physical activities.

Table 1. Age of respondents

ago of respondents		frequency of participation			Total
		Always	Sometimes	Never	
60-65	Count	18	77	25	120
	% within age of respondents	15.0%	64.2%	20.8%	100.0%
66-70	Count	0	1	65	66
	% within age of respondents	0%	1.5%	98.5%	100.0%
71-75	Count	0	1	54	54
	% within age of respondents	0%	.0%	100.0%	100.0%
76-80	Count	0	0	42	42
	% within age of respondents	0%	.0%	100.0%	100.0%
80<	Count	0	0	18	18
	% within age of respondents	0%	.0%	100.0%	100.0%
Total	Count	18	78	204	300
	% within age of respondents	6.0%	26.0%	68.0%	100.0%

One objective of this research was to find whether RFGSs' educational level influenced involvement in physical activity. Among RFGSs with secondary level (O/L) educational qualifications, 21.5% were involved in physical activities. 51.3% of RFGSs who were university graduates and 5.6% of postgraduate level RFGSs involved in physical activities. 11.1% of those who had completed lower secondary education level were involved in physical activity (Table 2). A Chi-square test was conducted in order to analyse the null hypothesis, that the "educational level has not influenced RFGS's physical activity". The Pearson Chi- test statistics was $\chi^2 = 4$ ($N = 300$) = 19.954, $p < .05$. Therefore, the null hypothesis was rejected. The empirical results confirmed that levels of educational achievement of RFGSs have significantly influenced their physical activity involvement.

Table 2. Level of educational achievements of respondents

level of educational achievements		Frequency of participation			
		Always	Sometimes	Never	Total
Lower Secondary	Count	0	2	16	18
	% within level of educational achievements	0%	11.1%	88.9%	100.0%
GCE O/L	Count	3	15	66	84
	% within level of educational achievements	3.6%	17.9%	78.6%	100.0%
GCE A/L	Count	3	32	67	102
	% within level of educational achievements	2.9%	31.4%	65.7%	100.0%
Basic Degree	Count	12	28	38	78
	% within level of educational achievements	15.4%	35.9%	48.7%	100.0%
Postgraduate	Count	0	1	17	18
	% within level of educational achievements	.0%	5.6%	94.4%	100.0%
Total	Count	18	78	204	300
	% within level of educational achievements	6.0%	26.0%	26.0%	68.0%

This study also investigated whether the involvement in physical activity of retired female government servants in Sri-Lanka were related to occupation. The percentage of involvement in physical activities by breakdown of occupation is as follows: 43.6% professionals, 47% semi-professionals, 32.3% clerical workers, 20.5%, production workers, and others 11.1% were involved in physical activity (Table 3). In order to examine the null hypothesis, that the "occupational categories have not substantially influenced RFGS's physical activity" the Pearson Chi- square test was administered. Because sample sizes were sometimes too small to satisfy the assumptions of the Chi-square test categories were combined. (eg. Professionals and semi-professionals). Chi-square statistics was $\chi^2 = 4(N = 300) = 24.034$, $p < .05$. The statistics does not support the null hypothesis and it was rejected. Therefore, the findings confirmed that levels of occupations of RFGSs have significantly influenced their physical activity involvement.

Table 3. Occupation of respondents

occupation		frequency of participation			Total
		Always	Sometimes	Never	
professionals	Count	6	11	22	39
	% within occupation	15.4%	28.2%	56.4%	100.0%
semi-professionals	Count	6	25	24	66
	% within occupation	9.1%	37,9%	53.0%	100.0%
clerical	Count	5	24	61	90
	% within occupation	5.6%	26.7%	67.8%	100.0%
production workers	Count	1	15	62	78
	% within occupation	1.3%	19.2%	79.5%	100.0%
others	Count	0	3	24	27
	% within occupation	.0%	11.1%	88.9%	100.0%
Total	Count	18	78	204	300
	% within occupation	6.0%	26.0%	68.0%	100.0%

Involvement in physical activity was calculated depending on the type of environment (place) the RFGSs lived: 3.3% for rural, 11.4% for semi-rural, 35.3% for semi-urban and 60.6% for urban areas (Table 4). The hypothesis, that the "Living areas is not related to RFGS's physical activity" was tested by the Pearson Chi- square test. The Chi- square test statistic was $\chi^2 = 4(N = 300) = 57.253$, $p < .05$ and, the null hypothesis was rejected. Therefore the empirical results confirmed that the living areas of RFGSs have a significant influence on their physical activity involvement.

Table 4. Living area of respondents

living area		frequency of participation			Total
		Always	Sometimes	Never	
rural	Count	0	1	29	30
	% within living area	0.00%	3.30%	96.70%	100.00%
semi-rural	Count	1	10	85	96
	% within living area	1.00%	10.40%	88.50%	100.00$%
semi urban	Count	3	27	55	85
	% within living area	3.50%	31.80%	64.70%	100.00%
urban	Count	14	40	35	88
	% within living area	15.70%	44.90%	39.30%	100.00%
Total	Count	18	78	35	88
	% within living area	6.00%	26.00%	39.30%	100.00%

Involvement in physical activity was calculated depending on the monthly income of the RFGSs; 16.0% had a monthly income of less than 10,000 Sri-Lankan Rupees (SRs). This also included 22.0% with an income of SRs10,001-15,000, 25.0% with SRs15,001-20,000 and 37.0% with an income of over SRs 20,000. This data is shown in the Figure 2:

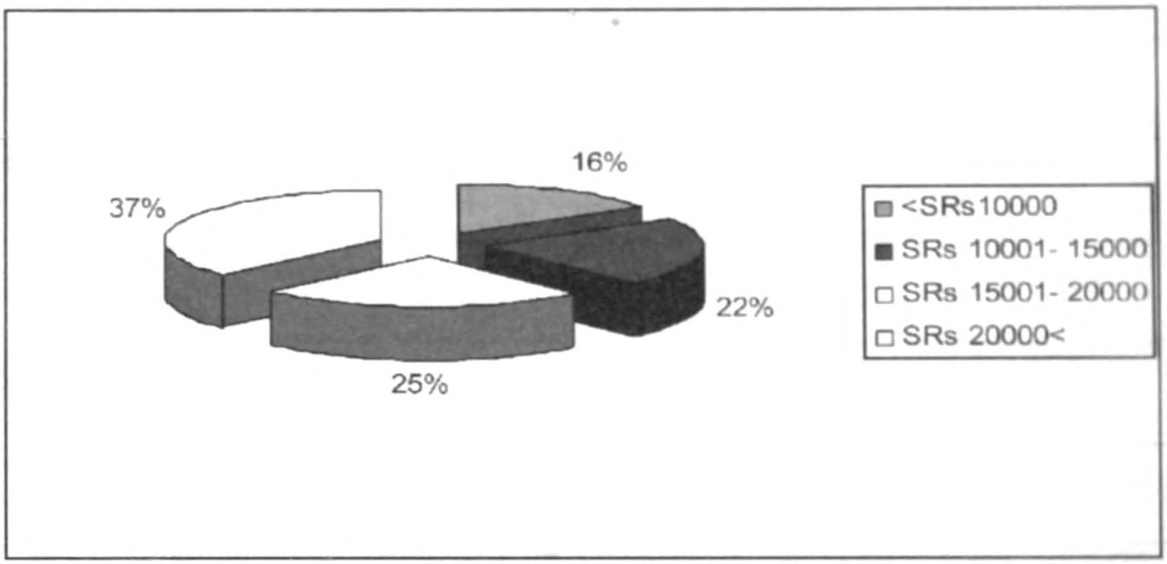

Figure 2: Monthly personal income of the respondents

The final null hypothesis to be tested was that the "monthly income has no impact on RFGS's physical activity". Based on the Chi square test statistics of $\chi^2 = 4(N = 300) = 9.978$, $p < .05$, the null hypothesis was rejected. This result confirms that the monthly income of RFGSs does have a significant influence on their physical activity participation.

Summary of quantitative results

This research suggests that the majority of retired female government servants in Sri-Lanka (68.0%) do not get involved in physical activity or exercise according to the NPAFOADD NARI, (1996) and that the overall physical activity rate was 32.0%. However, due to the difficulties of obtaining data from the past conflict affected areas, respondents from North and North East provinces were excluded from this study. The common and dominant physical activity variable that occupied the retired female government servants in Sri- Lanka was walking and gardening.

This study revealed that the age of RFGSs has a direct influence on physical activities. By rejecting the null hypothesis the study findings found that when RFGSs mature, the involvement in physical activity gradually decreased. Negative relationship between RFGSs involvement in physical activities and their age were higher than positive relationship. The results suggested that

levels of educational achievements have also impacted on RFGSs physical activity involvement. It was found that those who have attained higher educational qualifications are more likely to get involved in physical activities. This study reports the results of personal monthly income of RFGS's directly influenced their physical activity patterns. It also found that there is a positive correlation between higher income RFGSs and their physical activity participation; also a negative correlation exists between lower income RFGSs and their levels of physical activity.

The RFGSs involvement in physical activity statistics showed that there was a significant negative correlation between the levels of occupations and engaging in physical activities. RFGSs that employed as professional and semi professionals have substantially high likability to get involved in physical activity than non-professionals. RFGSs employed as production workers and labourers were less like to involve in physical activity after their retirement. The variable living areas of RFGSs had strongly impacted on their physical activity. There was a significant positive correlation between RFGSs who lived in urban areas and involving in physical activities after their retirement. However, there was a negative correlation between RFGSs those who lived in rural areas and physical activities after their retirement.

Results from the quantitative data suggest that retired female government servants in Sri-Lanka understand the health message regarding the value of physical activity and exercise, but many of them had not yet taken any positive steps to engage in a physical activity they enjoyed.

Qualitative results

In this section, the qualitative data is analysed using a thematic analysis. With reference to the data gathered by interviews, this study identified the following barriers that deter retired female government servants in Sri-Lanka from being involved in physical activity and exercise:

i. Stereotypes
ii. Attitudes and prejudices
iii. Body and age consciousness
iv. Low income
v. Social influence

i. Stereotypes and active life styles

The data suggests that there was a decreased in involvement in physical activity and exercise in Sri Lankan retired female government servants. Participants had a preconceived belief that they do not need to take part in

physical activity or exercise. These women had previously gone out to work to generate income. These earnings contributed to their retirement income, and they had developed the perception that a comfortable retirement does not include physical activity or deliberate exercise. In addition, this research revealed that of those retired female government servants, who were recently not active in physical activity and exercise, believed spending time at domestic work such as sweeping the floor, cooking and walking to shops provided sufficient physical activity for their life style. This would suggest that these inactive women had developed a stereotype around women involvement in physical activity or exercise. Evidence of this is contained in the following quote;

"As a woman, I do usual house work regularly. So I don't think I would need extra exercise"

And as a result suggests that stereotypical perceptions may be a barrier for elderly women to participate in physical activity and exercise. Hence they did not engage in sporting activities at an older age.

ii. Attitudes and prejudices and active lifestyles

Attitudes towards physical activity and exercise were generally found to be negative but the majority of the respondents reported that they were ambivalent as to whether they were personally involved in physically activity and exercise or not. However, those women from professional and semi-professional occupations believed that physical activity and exercise was important for physical and mental well being. The majority of these had not yet taken the next steps to regularly engage in physical activity and exercise due to their unchanged life styles beyond their work. Evidence of this is contained the following quote;

"I don't mind being physically fit or not. See, I am over 60 now; life will be very short"

The results show that RFGSs from professional and semi professional occupations understood the health benefits of the physical activity and exercise but still did not necessarily engaged in it. It would seem that their lack of personal confidence as women is a barrier and imperilment to them in engaging in physical activity or exercise.

Evidence from the qualitative data suggests that RFGSs prioritise engaging in religious activities which they see assisting them in achieving physical and mental well being. Indeed it would appear that these women believe that their long term mental health must include taking cognisance of their

religious preparation for their death. Evidence of this is contained the following quote;

"According to our religion we will have to think about our deaths. While I was working full time I was so busy that I didn't even have a time to go to the temple. However after my retirement I will be free of work will fully engage in religious activities. Even now I should have been involved in religious observances not sport or dance"

It is clear that these women had the perception that it is important to meditate and participate in other religious activities that facilitate a happy death rather than engage in a hobby such as physical activity and exercise. Another reason that influences the lack of involvement of retired personnel at physical activities was having family commitments. The predominant reason was looking after their grandchildren.

The study also identified that RFGSs do not possess the ability and keenness to engage in activities unfamiliar to them. They saw this as alienation as they show a particular unfamiliarity, unlike pre-existing activities they engaged in prior to their retirement.

"I haven't participated in any sporting activities in my life even at school. Now I am over 60 and how can I involve in sports, at least in physical exercises"

The past history of oppression seemed to have an impact on the adults of today and their physical activity involvement. Sixty eight percent (68%) of the participants indicated that engaging in physical activity and exercise put them outside of their comfort zone. Therefore, it was recognised that unfamiliarity in physical activity and exercise may cause an attitudinal alienation and create a barrier and resistance to participation in active life styles.

iii. Body and age consciousness

Qualitative data revealed that the RFGSs tend to have a negative perception of their age. They seemed to be a strong link between the women's perceptions of their bodies and their consciousness in participating in physical activity. Evidence of this is contained the following quote:

"What are you talking my child. I am nearly 70 now. Don't know how long I will live, I may even die tomorrow. So why should I worry about my body or physical fitness?"

Sixty two percent (62%) of the participants believed that they should not be involved in physical activity or exercise because of their advanced age. This research also revealed that having a low body consciousness impacted on their involvement in physical activity. Sixty eight percent (68%) of the participants mentioned that they did not intend to maintain a good body image or muscular strength because they had perceived that they have passed a young age and therefore, it was not necessary to engage in physical activity and exercise.

iv. Low income and active lifestyles

It would appear from the data that economic considerations influenced the RFGSs involvement in physical activity and exercise. From the semi structured interviews seventy six percent (76%) of the participants mentioned that they did not have the economic stability to spend money on participating in physical activity or exercise. Evidence of this is contained the following quote:

"We are very poor people. Pension is my only source of income and it is barely sufficient. I have to survive first and I have priorities to full fill my family needs. Involvement in sport or participating physical activity is not in my priority list"

The majority of the participants (65%) mentioned that they needed to prioritise better living and other engagements like pilgrimaging over physical activity or exercise when spending money.

v. Social influences and active lifestyles

The qualitative results (86%) suggest that both personal and socio-cultural values influenced the retired female government servants to participation in any physical activity or exercise. Sinhalese and Tamil retired female government servants perceived that traditional festivals such as Sinhala and Hindu new year festivals contributes to keeping them physically and mentally active. Muslim retired female government servants did not recognise anything in their culture that related to physical activity. Respondents from all ethnic groups said that they particularly felt uncomfortable when exercising in public. Eighty two percent (82%) believed that participating in physical activity or exercise will subject them to humiliation in the neighbourhood. Evidence of this is contained the following quote:

"My goodness, starting sport or exercise at this age? Our villagers will laugh at me I was caught jogging. They might think that I have gone mad"

This suggests that the negative social attitudes towards elderly participating in physical activity or exercise is problematic and indicates that attitudes and stereotyping are still unchanged in Sri-Lanka. Evidence of this is contained the following quote:

"I am very shy to exercise in front of my children or others. They are cheeky and will laugh at me" (respondent 43)

Respondents reported that their children did not pay any attention or give encouragement to their mothers to engage in physical activity or exercise to enhance their life styles

Of those respondents who have involved in physical activity and exercise, despite their positive early memories and experience in participating in physical activity after their retirement; 10% of RFGSs suggested that the process of growing up and full-time employment restricted their leisure time to participate in physical activity. Evidence of this is contained the following quote:

"Those days I studied in a rural school in a remote area. We didn't have any sporting facilities there. My parents were farmers and were uneducated. All they wanted was to see us going for higher studies so we can get government jobs. They did not encourage us to do extracurricular activities because they were seen as interruptions to studies; sports in particular were discouraged because it was time consuming. Therefore even after entering to the government job I didn't have any interest on physical activities"

However, these elderly people felt that when they were young, the encouragement for young school leavers to participate in sport was very deficient compared to the amount of encouragement received by young people today. Evidence of this is contained the following quote:

"Not like now, during our school days we were not allowed to wear the short sport dress code and arriving home late. So most of the girls didn't participate in any physical activity. Now I am too old to start"

These elderly respondents also indicated that physical and mental exhaustion caused by busy lifestyles contributed to the hindrance of participation in physical activity and exercise.

The consistency and yet ambiguity of some of the differing perceptions held by these retired female government servants in Sri-Lanka, underlined the intersection of personal and cultural values and the need to examine

both their environment and their behaviour in determining physical and mental well being. The culture of "exercise reluctance" due to the negative influences of lifestyles, culture and attitudes are clearly preventing retired female government servants from involving in physical activity regularly and adopting it as part of an active healthy lifestyle.

There were distinct differences to the lifestyles among members of this group due to their social status in the social stratification system. Many of the low income retired female government servants in Sri-Lanka were distant from participating in physical activity and exercise, mainly due to poverty and lack of opportunities. In comparison, those who were at the high income category were also not encouraged to participate in physical activity or exercises due to restlessness, exhaustion at work, work stress, and longer travelling distances. Therefore, it would seem that the Sri-Lankan retired female government servants' withdrawal from involvement in physical activity is influenced by stereotypes, attitudes and prejudices, body and age consciousness, low income, and social influences of lifestyles, culture and attitudes but also a lack of appropriate role models.

Implications and future research directions

According to the guidelines of American College of Cardiology/American Heart Association (2006), older adults need moderate-intensity aerobic physical activity for a minimum of 30 minutes on five days each week or vigorous- intensity aerobic activity for a minimum of 20 minutes on three days each week. Therefore, it is necessary to establish a positive mindset for these retired female government servants, towards participation in physical activity and exercises. They need a well developed awareness about the importance of maintaining a healthy body. Older adults need to have a plan for participating in sufficient physical activity that addresses NPAFOADD (1996) guideline recommended each type of activity. They need to be further educated on the benefits they will gain from participation in physical activity and exercise and they may lead to a means of discouraging their negative perception towards their body image. In the existing Sinhalese, Tamil and Islamic cultures in Sri-Lanka, females will particularly benefit from believing that physical activity participation is an opportunity to grow confidence and leadership skills.

Although, the juveniles have enhanced their social status through sport, it would seem elderly people in Sri Lanka have failed to demonstrate an uplift. Therefore, it is recommended that the Ministry of Public Administration and Home Affairs in Sri-Lanka need to act collaboratively with the Ministry of Sport to launch programmes that dispense assistance and knowledge for

the retired government servants to grow the awareness of particular benefits of engaging in active lifestyles.

It is necessary to establish community education programmes that dispense the importance of these retired elderly people engaging in active physical activity and exercise for personal benefit and the society. Furthermore, television advertisements, newspaper articles and other media need to be launched to focus on encouraging their elderly to engage in physical activities and thus, change society's attitudes towards elderly engaging in active lifestyles. Advertising needs to pay special attention towards participants' both physical and mental health and safety. Indeed these programmes could well promote a holism that in cooperates the Sri Lankan cultural need for spirituality.

Economic pressure is affecting the reduction of retired female government servants' involvement in physical activity. However, collaborative approaches from the Ministries of Sport, Health and Women's Affairs to dispense physical activity equipment at low cost and active lifestyle advice and instruction may attract these women to engage in physical activity. In addition, this assistance may be fulfilled by the private sector for a reasonable cost.

Finally, this is an interesting field for research, unfortunately only a limited number of researches have been involved in this type of research areas in women and sport in Sri Lanka. However, it is suggested that more research should be conducted around the topic women and sports, physical activity and exercise, in order to increase the attention given to women and active lifestyles in Sri Lanka.

Conclusions

The purpose of this research was to determine the extent of physical activity and exercise participation of a group of elderly Sri Lankan women and examine what specific social practices lead them to possible physical and ideological exclusion. The study found that age, levels of education, levels of occupations, living areas and monthly income of RFGSs have directly influenced in their physical activity involvement. The findings suggested many elderly females were unsure on the actual risks or benefits of exercise settings. There are number of barriers facing retired female government servants in Sri-Lanka such as stereotypes, negative social influence, and negative body consciousness and as a result they do not participate in exercise or any physical activity. It is recommended that the State needed to take leadership in the promotion of active lifestyles in particular elderly women. This promotion would have not only benefits for individuals but also for harmonious benefits for the Sri Lankan society.

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