

In addition, the challenge of time could also be alleviated by improving human resources as there are serious shortages in all the departments of Mbabane Government Hospital. It would therefore be appropriate to engage doctors, nurses, therapists and other health professionals in PA counselling so that the workload is shared. A multidisciplinary approach that addresses the individual needs of the patient would offer a better chance for long-term effectiveness.

5.10.3 Knowledge

Even if health professionals have the time to offer PA counselling, they often lack the knowledge including lack of knowledge of the types of PA, frequency, duration and the intensity. In addition, lack of knowledge may also imply that health professionals may not be conversant with writing a PA prescription. Lack of knowledge in this study was only reported by nurses (9.5%), even though the questions about the frequency, duration and intensity were not answered by most health professionals. Similarly, a Scottish study also showed that few health professionals had adequate knowledge to cover the important components of PA counselling (Douglas et al., 2006). The lack of knowledge is a problem that should be linked to academic training programmes. Swaziland does not have its own medical school therefore relies on neighbouring countries for its training needs. A programme to train and keep health professionals abreast with current trends should therefore be put in place to overcome this barrier.

5.11 Summary

Chapter Five compared and contrasted the findings of the current study with previous similar studies. It was highlighted that individuals with hypertension are not engaging in sufficient PA as per recommendation by public health research. In addition, health professional's PA counselling practices are of poor quality. The implications of inactivity on hypertension and the inability of health professionals to effectively counsel their patients were also discussed. The following chapter summarises and concludes the study. Recommendations for stakeholders and further studies are also discussed.

CHAPTER SIX

SUMMARY, SIGNIFICANCE, CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

6.1 INTRODUCTION

This final chapter provides a summary and conclusion of the study. Recommendations based on the findings of this study are also provided.

6.2 SUMMARY AND CONCLUSION

The aim of this study is to determine the PA participation among adults with hypertension in Mbabane, Swaziland and the extent to which they are encouraged to be physically active by health professionals. To achieve this, levels of PA were measured and the associated factors were analysed. Furthermore, the benefits of and barriers to PA were determined and the health professionals counselling practices were examined.

Scientific evidence has recognised the importance of hypertension as a leading cause of CVD morbidity and mortality globally. Moreover, the proportion of hypertension in developing countries is as high as, sometimes even more than the ones reported in developed countries. The prevalence of hypertension is propelled by physical inactivity brought about by demographic, economic and social factors, of which urbanisation, industrialisation, and globalisation are the main determinants. While PA to a great extent contributes to the development of CDL such as hypertension, there is overwhelming evidence with regards to the effectiveness of positive lifestyle modifications, which includes increased PA. PA is predominantly a recommended strategy because of its multi-factorial effect on other CVD risk factors as well as it being a cost effective intervention with very few adverse side effects if undertaken according to scientifically proven guidelines.

Health professional`s counselling and advice on PA is the best established PA intervention as long as it is tailored to meet an individual`s needs and abilities. For this reason, health professionals have been identified as key players in encouraging and influencing healthy lifestyles such as PA promotion and awareness as they are strategically positioned and have access to a good proportion of individuals with CDLs. The rationale for this study was to determine if individuals with hypertension are participating in sufficient levels of PA for health benefits as well as to assess how much PA advice health professionals incorporate in their daily routine as they deal with their clients. It is hoped that the results of this study will help in developing effective programmes to motivate individuals with hypertension and the high risk groups to increase the levels of PA in order to meet public health PA recommendations of 30 minutes or more of moderate intensity. In addition, the results will also establish a foundation for evidence based practice which is necessary in the planning and implementation of PA interventions.

Mbabane Government (referral) Hospital which is located in the capital city of Swaziland was chosen as the research setting. A cross-sectional design utilising quantitative methods was used to determine PA participation among adults with hypertension and the extent to which they are encouraged to become physically active. Data from both hypertensive individuals and health professionals was collected using valid and reliable questionnaires. The study sample included 410 hypertensive individuals and 59 health professionals. Data was analysed using the Statistical Package for Social Sciences (SPSS) version 21. Descriptive statistics was used to summarise the levels of PA as well as the socio-demographic and health-related factors, while inferential statistics was used to test the association between these factors and the levels of PA.

With regard to individuals with hypertension, participants` age ranged from 24 to 65 years with a mean age of 54.08 (SD=8.81). The majority of individuals with hypertension (64.4%) did not receive advice with regards to exercise and most reported poor health (65.9%).

The International Physical Activity Questionnaire (IPAQ) was used to assess the levels of PA among hypertensive individuals. The results of the study showed that the majority 52.9% of the study sample was considered sedentary. Age, systolic and diastolic blood pressure were found to be significantly associated with PA (P-value < 0.05). In addition, an association between health status and advice received was also found.

The Exercise Benefits Barrier Scale Questionnaire was used to assess the benefits of and barriers to PA participation. The most reported barrier to PA participation among hypertensive individuals was “fatigue and the time factors”. With regard to benefits, most individuals demonstrated good knowledge about the benefits of PA. The commonly reported benefits were “improved cardiovascular system and body image”.

The Health professionals age ranged from 24 to 62 years, with a mean age of 38.2 (SD= 9.76). The majority of participants were nurses (67.8%) and 59.3% of the participants had obtained a degree. The mean years of experience of the study sample was 12.8 (SD = 9.34). The Physical Activity Interview Exit Questionnaire (PAIE) was used to assess PA counselling practices of health professionals. The results of the study revealed that the majority of participants (58%) were categorised as having poor quality physical activity counselling content. The most used counselling ideas of PA were: discussing PA (88.1%), advice to become more physically active (76.3%) and advice on how frequently they should exercise (73.6%).

The current levels of PA among hypertensive individuals, the knowledge as well as the quality of PA counselling practices among health professionals is of great concern, particularly because individuals with hypertension thought they were accumulating sufficient levels of PA while the health professionals thought they had adequate knowledge to counsel their patients on matters regarding PA. These findings are consistent with results from similar studies done in various countries globally.

The increased levels of physical inactivity in developing countries such as Swaziland in particular should attract serious attention from Policy makers and health professionals. PA as an independent strategy has a significant impact in the prevention and management of hypertension or can be used as an adjunct to medication and other treatments, therefore a corner stone for public health. Policy makers should thus be persuaded to invest in both scientifically proven strategies and further research. Meanwhile, health professionals should invest in time to discuss PA with their clients. In addition, strategies aimed at prevention and management of hypertension should also attract strong political involvement in light of the fact that Swaziland like most developing countries, is currently battling with communicable diseases such as tuberculosis and HIV/AIDS with limited resources and health budgets. It is therefore hoped that the information gathered from this study will help to inform individuals with hypertension, health professionals and policy makers on the need to utilise PA as a cost effective strategy in preventing and managing hypertension.

6.3 STRENGTHS

The study achieved reasonable response rates for both individuals with hypertension and health professionals, i.e. 97% and 82% respectively. Questionnaires which have been shown to be reliable and valid for the African context were used for data collection. In addition, pilot studies were undertaken to further ensure reliability and validity. Systematic random sampling which was used to select hypertensive individuals and the inclusion of all health professionals gave the participants an equal chance to participate, limiting bias.

6.4 RECOMMENDATIONS

- The role of health professionals in promoting PA should be emphasised. In order for the health professionals to be fully motivated and effective in encouraging and supporting individuals with hypertension to become physically active to public health recommended levels, policy makers and health professionals need to engage in efforts to improve the knowledge of current PA as well as consider the development of standardised protocols and guidelines to support individual assessment and advice.
- In the interim, the physiotherapy department should be of great importance to the facility, not only in secondary but also in primary prevention. Health education and health promotion are an integral component of the physiotherapist profession. Therefore, physiotherapists can offer valuable advice to the rest of the health team on PA prescription covering all areas including the types, intensity, frequency and duration of beneficial PA. In addition, physiotherapists should also be involved in designing programmes for PA promotion. However, in order for the physiotherapy department to be effective, human resources should be improved. Furthermore, the issue of reimbursement of all health professionals involved in PA counselling should be seriously looked into.
- Management and prevention of hypertension should not be treated as an individual problem but all strategies should be societal in nature. Therefore, peer motivation specifically by family members and friends who share the same challenges in dealing with hypertension would be a major factor in promoting healthy lifestyles through the promotion of PA. Support groups within the communities would be of great benefit and should be encouraged. Furthermore, the groups who are not accumulating sufficient PA levels can be motivated by group PA. Therefore, significant role players of Mbabane Government Hospital should consider setting aside some space within the premises for these groups.

- Integration of PA in work, home, transport and recreation domains should be encouraged to overcome the barriers of lack of time and motivation. Physical activity should be incorporated into individual's daily routine especially the individual's valued activity. Infrastructural suitability such as level playing grounds, pedestrian pavements besides main roads and security is also recommended. The government should therefore look into improving the available infrastructure and establishing recreational facilities to promote PA participation.
- Media messages on PA should not only target the general population but should also be tailored for those who already have hypertension and the high risk groups. In addition, education material in the form of pamphlets, brochures and posters should be made available in the facility to increase hypertension and PA awareness and promotion.

6.5 FURTHER STUDIES

The study of hypertension and PA is broad. Another study which combines both quantitative and qualitative study designs (Triangulation) could be conducted among patients with other CDL for a deeper insight into the PA participation and PA counselling practices. In addition, it would also be interesting to know the effectiveness of a multi-disciplinary team in PA promotion.

6.6 LIMITATIONS OF THE STUDY

- The study was a cross-sectional study therefore causal inferences cannot be made. Caution should be exercised in interpreting the results in the absence of longitudinal data.
- Due to self-reported data, a bias may have occurred when assessing physical activity levels of hypertensive individuals and some individuals might have lied about their physical activity pattern or exaggerated the report.

- The questionnaires consisted of close-ended responses. This limited the study to gain deeper information on physical activity participation patterns. A mixed methods study could have produced better results.
- The questionnaire requested the participants to recall their physical activity pattern in the last 7 days that could have encouraged recall bias, which may also represent sources of error.
- A narrow choice of responses (Yes /No) for the PAEI questionnaire might have limited health professional`s responses. An addition of “always and sometimes” could have given more choice for health professionals.



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APPENDIX A


QUESTIONNAIRE FOR ADULT HYPERTENSIVE INDIVIDUALS

Dear participant,

Please answer the questions as instructed in every section. Do not write your name on the questionnaire.

Give your answer by **ticking** (√) in the boxes, **circling** or providing **information** in the spaces provided.

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION.

<p>1. How old are you? <input type="checkbox"/> Years <input type="checkbox"/> Birth year</p>	<p>5. What is your marital status?</p> <p><input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Co-habiting</p>	
<p>2. What is your gender? <input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>6. What is your highest education?</p> <p><input type="checkbox"/> Primary <input type="checkbox"/> Secondary <input type="checkbox"/> High School <input type="checkbox"/> Tertiary <input type="checkbox"/> None</p>	
<p>3. Where do you stay? <input style="width: 100px; height: 20px;" type="text"/></p>	<p>7. What is your employment status level?</p> <p><input type="checkbox"/> Employed full time <input type="checkbox"/> Employed part time <input type="checkbox"/> Unemployed <input type="checkbox"/> Pensioned <input type="checkbox"/> Other _____</p>	
<p>4. What is your Region? <input type="checkbox"/> Hhohho <input type="checkbox"/> Shiselweni <input type="checkbox"/> Lubombo <input type="checkbox"/> Manzini</p>	<p>8. Do you smoke cigarettes? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>9. Do you take alcohol? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	

<u>OFFICIAL USE</u>	
Blood pressure	<input style="width: 100%;" type="text"/>
Height	<input style="width: 100%;" type="text"/>
Weight	<input style="width: 100%;" type="text"/>
Body mass index	<input style="width: 100%;" type="text"/>

SECTION B: THE FOLLOWING QUESTIONS ASK ABOUT YOUR HEALTH AND PHYSICAL ACTIVITY ADVICE RECEIVED.

1. Considering you having hypertension, how would you describe your general health?	<input type="checkbox"/>	Excellent
	<input type="checkbox"/>	Very good
	<input type="checkbox"/>	good
	<input type="checkbox"/>	Fair
	<input type="checkbox"/>	poor
2. Has your health care provider advised you to follow an exercise programme?	<input type="checkbox"/>	Yes
	<input type="checkbox"/>	No

SECTION C: INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE (IPAQ)

In this section, we are interested in finding out about the kinds of physical activities that you do as part of your everyday lives. The questions will ask you about the time you spent being physically active in the **last 7 days**. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the **vigorous** activities that you did in the **last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think **only** about those physical activities that you did for at least 10 minutes at a time.

1. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?

_____ **Days per week**

No vigorous physical activities **➡ Skip to question 3**

2. How much time did you usually spend doing vigorous physical activities on one of those days?

_____ **Hours per day**


_____ **Minutes per day**

Don't know/Not sure

Think about all the **moderate** activities that you did in the **last 7 days**. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

3. During the **last 7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

___ **Days per week**

No moderate physical activities  **Skip to question 5**

4. How much time did you usually spend doing **moderate** physical activities on one of those days?

___ **Hours per day**

___ **Hours per day**

Don't know/Not sure

Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.

5. During the **last 7 days**, on how many days did you **walk** for at least 10 minutes at a time?

___ **Days per week**

No walking  **Skip to question 7**

6. How much time did you usually spend **walking** on one of those days?

___ **Hours per day**

___ **Minutes per day**

Don't know/Not sure

The last question is about the time you spent **sitting** on weekdays during the **last 7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

7. During the **last 7 days**, how much time did you spend **sitting** on a week day?

___ **Hours per day**

___ **Minutes per day**

Don't know/Not sure

SECTION D: EXERCISE BENEFITS/BARRIERS SCALE (EBBS)

DIRECTIONS: Below are statements that relate to ideas about exercise. Please indicate the degree to which you agree or disagree with the statements by circling SA for strongly agree, A for agree, D for disagree, or SD for strongly disagree.

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
1. I enjoy exercise.	SA	A	D	SD
2. Exercise decreases feelings of stress and tension for me.	SA	A	D	SD
3. Exercise improves my mental health.	SA	A	D	SD
4. Exercising takes too much of my time.	SA	A	D	SD
5. I will prevent heart attacks by exercising.	SA	A	D	SD
6. Exercise tires me.	SA	A	D	SD
7. Exercise increases my muscle strength.	SA	A	D	SD
8. Exercise gives me a sense of personal accomplishment.	SA	A	D	SD
9. Places for me to exercise are too far away.	SA	A	D	SD
10. Exercising makes me feel relaxed.	SA	A	D	SD
11. Exercising lets me have contact with friends and persons I enjoy.	SA	A	D	SD
12. I am too embarrassed to exercise.	SA	A	D	SD
13. Exercising will keep me from having high blood pressure.	SA	A	D	SD
14. It costs too much to exercise.	SA	A	D	SD
15. Exercising increases my level of physical fitness.	SA	A	D	SD
16. Exercise facilities do not have convenient schedules for me.	SA	A	D	SD
17. My muscle tone is improved with exercise.	SA	A	D	SD
18. Exercising improves functioning of my cardiovascular system.	SA	A	D	SD
19. I am fatigued by exercise.	SA	A	D	SD

20. I have improved feelings of well-being from exercise.	SA	A	D	SD
21. My spouse (or significant other) does not encourage exercising.	SA	A	D	SD
22. Exercise increases my stamina.	SA	A	D	SD
23. Exercise improves my flexibility.	SA	A	D	SD
24. Exercise takes too much time from family relationships.	SA	A	D	SD
25. My disposition is improved with exercise.	SA	A	D	SD
26. Exercising helps me sleep better at night.	SA	A	D	SD
27. I will live longer if I exercise.	SA	A	D	SD
28. I think people in exercise clothes look funny.	SA	A	D	SD
29. Exercise helps me decrease fatigue.	SA	A	D	SD
30. Exercising is a good way for me to meet new people.	SA	A	D	SD
31. My physical endurance is improved by exercising.	SA	A	D	SD
32. Exercising improves my self-concept.	SA	A	D	SD
33. My family members do not encourage me to exercise.	SA	A	D	SD
34. Exercising increases my mental alertness.	SA	A	D	SD
35. Exercise allows me to carry out normal activities without becoming tired.	SA	A	D	SD
36. Exercise improves the quality of my work.	SA	A	D	SD
37. Exercise takes too much time from my family responsibilities.	SA	A	D	SD
38. Exercise is good entertainment for me.	SA	A	D	SD
39. Exercising increases my acceptance by others.	SA	A	D	SD
40. Exercise is hard work for me.	SA	A	D	SD
41. Exercise improves overall body functioning for me.	SA	A	D	SD
42. There are too few places for me to exercise.	SA	A	D	SD
43. Exercise improves the way my body looks.	SA	A	D	SD

This is the end of the questionnaire, thank you for participating.

APPENDIX B

QUESTIONNAIRE FOR HEALTH PROFESSIONALS

Dear participant,

We are interested in knowing your physical activity counselling practices. Please answer the questions as instructed in every section. Do not write your name on the questionnaire. Give your answer by ticking (√) in the boxes or providing information in the spaces provided.

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION.

1. How old are you?	<input type="checkbox"/>	Years
2. What is your gender?	<input type="checkbox"/>	Male
	<input type="checkbox"/>	Female
3. What is your level of education?	<input type="checkbox"/>	Cert
	<input type="checkbox"/>	Diploma
	<input type="checkbox"/>	Degree
	<input type="checkbox"/>	Msc
	<input type="checkbox"/>	Other _____
4. What is your occupation?	<input type="checkbox"/>	Doctor
	<input type="checkbox"/>	Nurse
	<input type="checkbox"/>	Dietician
	<input type="checkbox"/>	Other _____
5. What is your number of years of practice?	<input type="checkbox"/>	Months
	<input type="checkbox"/>	Years

SECTION B: PHYSICAL ACTIVITY EXIT INTERVIEW QUESTIONNAIRE

Below are some physical activity ideas that can be discussed between you and the patient. Please answer either **YES** or **NO** by indicating with a tick (✓).

	QUESTION	YES	NO
1	Do you discuss the topic of physical activity with your patients?		
1a	<p>If (1) above is NO, give a reason:</p> <p>Lack of time <input type="checkbox"/> Not my area of specialty <input type="checkbox"/></p> <p>Lack of knowledge <input type="checkbox"/> It does not have health benefits <input type="checkbox"/></p>		
2	Do you advise your patients to become more physically active?		
3	Do you discuss the benefits of physical activity with your patients?		
4	Do you discuss with your patients on their past experiences with physical activity?		
5	Do you discuss the difficult situations patients might encounter or problems they might have in trying to become more physically active?		
6	Do you inform your patients on how FREQUENTLY they should exercise?		
7	Do you inform your patients on how LONG they should exercise?		
8	Do you inform your patients on how HARD they should exercise?		
9	Do you inform your patients on the TYPES of exercise they should do?		
10	Do you and your patient put the plan to become more physically active in Writing?		
11	Do you give any written materials about physical activity or exercise during each day's clinic visit?		
12	Do you state to the patients that you are planning to discuss their physical activity on a future visit?		

APPENDIX C



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27(021)959-2542, Fax: +27(021)959-2542

CONSENT FORM

Title of Research Project: Physical activity participation among adults with hypertension in Mbabane-Swaziland.

The study has been described to me in a language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that i may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name: _____	Witness: _____
Study ID : _____	Signature: _____
Signature/ Thumb print: <input type="text"/>	
Date: _____	Date: _____

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Prof. Julie Philips

University of the Western Cape

Private Bag X17, Belville 7535

Tel: +27(021)959-2542

Cell: +27729921549

Email: jphillips@uwc.ac.za

APPENDIX D



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27(021)959-2542, Fax: +27(021)959-2542

INFORMATION SHEET

Project Title: Physical activity participation among adults with hypertension in Mbabane – Swaziland.

What is this study about?

This is a research project being conducted by **SHARON MASONA** from the University of the Western Cape. You are invited to participate in this research project because you are among the hypertensive individuals receiving treatment at the Mbabane Government Hospital or you are directly involved in the management of hypertensive individuals. The purpose of this research project is to determine physical activity participation among adults with hypertension in Mbabane-Swaziland and the extent to which they are encouraged to be physically active. The information from this study will be useful in informing individuals with hypertension, health professionals and policy makers on the need to utilize physical activity as a cost effective strategy in managing and preventing hypertension. It will also establish a foundation for evidence based practice which will help health professionals improve or implement hypertension prevention strategies.

What will I be asked to do if I agree to participate?

You will be required to sign a written informed consent if you do agree to participate in this study before participating. As an individual with hypertension, you will be asked to complete two closed ended questionnaires either in English or siSwati, giving information regarding how much physical activity you are involved in, the time you spend in these physical activities, the benefits of and barriers to your participation in physical activity.

As a health professional you will be required to complete one closed ended questionnaire in English, giving information regarding your counseling practices in managing hypertension. The questionnaires require ticking or circling the answer which best describe your answer to the question. If you are an individual with hypertension, you will be seen after consulting your medical practitioner at the hypertensive clinic and if you are a health professional you will be seen at your convenient time and place.

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality, there will be no individual names on the questionnaire and other information that personally identify you. If a report is written or an article is published about this research project, your identity will be protected to the maximum extent possible.

What are the risks of this research?

There are no known risks associated with participating in this research project.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the researcher learn more about the need for physical activity in promoting health among hypertensive individuals. We hope that, in the future, other people might benefit from this study through improved understanding of the need for promoting physical activity in combating hypertension.

Describe the anticipated benefits to science or society expected from the research, if any.

The study will help in promoting physical activity among hypertensive individuals and encourage health professionals to offer physical activity counseling when managing hypertension in Mbabane government hospital- Swaziland.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time.

If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefit to which you otherwise qualify.

Is any assistance available if I am negatively affected by participating in this study?

In case of any complication to you during the study, you will be advised to seek or you will be referred to proper health care providers for further treatment and counselling at no cost.

What if I have questions?

This research is being conducted by **SHARON MASONA** from the Physiotherapy department at the University of the Western Cape. If you have any questions about the research study itself, please contact

SHARON MASONA at: University of Western Cape, Cape Town, South Africa, Phone: +27735313540/+26878211850, Email: smasona@yahoo.co.uk. Or

Prof. Julie Philips

University of the Western Cape

Private Bag X17, Bellville 7535.

Telephone number: +2721959 2542

E-mail address: jphilips@uwc.ac.za



Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department:

Dean of the Faculty of Community and Health Sciences:

University of the Western Cape

Private Bag X17

Bellville 7535

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

APPENDIX E

LUHLU LWEMIBUTO LOLUBHEKISWE KUBANTFU LABADZALA LABANESIFO SEKUPHAKAMA KWENGATI.

Wena wekunene,

Phendvula imibuto njengoba ibutiwe kuletigaba letehlukene. Ungabhali libito lakho kuleliphepha lemibuto. Niketa imphendvulo yakho ngekumaka (✓) ebhokisini noma ukipilitele noma ubhale imphendvulo etikhaleni letiseceleni.

SIGABA A: IMIBUTO LEPHATSELENE NEKUPHILA KWAKHO

<p>1. Uneminyaka lemingakhi?</p>	<p><input type="checkbox"/> Iminyaka <input type="checkbox"/> Umnyaka wekutsalwa</p>	<p>5. Ushadile noma cha?</p>	<p><input type="checkbox"/> Angikashadi <input type="checkbox"/> Ngishadile <input type="checkbox"/> Ngingumfelokati <input type="checkbox"/> Ngidivosile <input type="checkbox"/> Nginamasihlalisane</p>
<p>2. Bulili bakho?</p>	<p><input type="checkbox"/> Wesilisa <input type="checkbox"/> Wesifazane</p>	<p>6. Ugcine kusiphi sigaba sekufundza?</p>	<p><input type="checkbox"/> e-Primary <input type="checkbox"/> e-Secondary <input type="checkbox"/> e-High School <input type="checkbox"/> e-Tertiary <input type="checkbox"/> Kute</p>
<p>3. Uhlalaphi?</p>	<p><input style="width: 100px; height: 20px;" type="text"/></p>	<p>7. Uyasebenta yini noma cha?</p>	<p><input type="checkbox"/> Ngicashiwe <input type="checkbox"/> Ngicashiwe kwesikhashane <input type="checkbox"/> Angisebenti <input type="checkbox"/> Ngipenishelwe <input type="checkbox"/> Lokunye</p>
<p>4. Ngusiphi sifundza sakho?</p>	<p><input type="checkbox"/> Hhohho <input type="checkbox"/> Shiselweni <input type="checkbox"/> Lubombo <input type="checkbox"/> Manzini</p>	<p>8. Uyalibhema ligwayi?</p>	<p><input type="checkbox"/> Yebo <input type="checkbox"/> Cha</p>
		<p>9. Uyabunatsa tjwala?</p>	<p><input type="checkbox"/> Yebo <input type="checkbox"/> Cha</p>

<u>OFFICIAL USE</u>	
i-Blood pressure	<input style="width: 100%;" type="text" value="mm/Hg"/>
Budze	<input style="width: 100%;" type="text" value="meter"/>
Sisindvo	<input style="width: 100%;" type="text" value="kgs"/>
Budlelwane besisindvo nebudze	<input style="width: 100%;" type="text" value="kg/m<sup>2</sup>"/>

**SIGABA B: LEMIBUTO LELADZELAKO IBUTA MAYELANA NEMPILO YAKO NETELULEKO
TEKUSHUKUMA LOKE WATITFOLA.**

1. Njengoba unesifo sekuphakama kwengati, ungayichaza utsi injani imphilo yako?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Yinhle ngalokucicimako Yinhle kakhulu Yinhle Ikahle Ikabi
2. Umnakekeli wakho uke wakweluleka yini ngekutsi ube neluhlelo lwekushukumisa umtimba?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Yebo Cha Angisakhumbuli

SIGABA C: INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE (IPAQ)

Kulesigaba lesi, singatsandza kwati ngetinhlobo tekushukuma lotentako imihla nemalanga. Sitakubuta mayelana nesikhatsi losisebentise ekushukumeni kulamalanga **lasikhombisa lendlulile**. Phendvula yonkhe imibuto noma ngabe awusiye umuntfu loshukumako. Cabangisisa ngekushukuma lokwentako emsebenzini, endlini yakho noma wenta umsebenzi wasebaleni lakho, lekwentu usuke endzaweni letsite uye kulenye noma ngesikhatsi sakho sekuphumula, sekutivocavoca noma semidlalo.

Cabangisisa ngako konkhe lokwentile lokufaka ekhatsi kushukuma **ngemandla** kulamalanga **lasikhombisa lendlulile**. Kushukuma ngemandla kufaka ekhatsi yonkhe imisebenti ledzinga tikhwepha, lekwentu uphefumule kamatima kunasemihleni. Cabanga **kuphela** ngekushukuma lokutsetse lokungenani imizuzu lelishumi sikhatsi sisinye.

1. Kulamalanga **lasikhombisa lendlulile**, kukangakhi ushukuma ngekwentu **imisebenti lematima** njengekuphakamisa tintfo letesindzako, kugubha, kutivocavoca noma kushova libhayisikili ngemandla?

___ **Ngeliviki**

Angikase ngashukuma ngemandla **➡ Chubekela kumbuto 3**

2. Singakanani sikhatsi lebewuvamise kusisebentisa ushukuma **ngemandla** ngelilanga?

___ **Wemahora ngelilanga**

___ **Wemimizuzu ngelilanga**

Angati/Anginaso siciniseko

Ake ucabange ngako konkhe kushukuma **lokungadzingi kakhulu emandla** lokwente **kulamalanga lasikhombisa lendlulile**. Kushukuma lokungadzingi kakhulu emandla nguloko lokudzinga emandla lamancane kodvwa lokukwenta uphefumule kakhudlwana kunalokujwayelekile. Cabanga ngekushukuma lokutsetse lokungenani imizuzu lelishumi ngesikhatsi lesitsite.

3. Kulamalanga **lasikhombisa lendlulile**, kukangakhi **ushukuma kancane** ngekwenta imisebenti lenjengekutfwala imitfwalo lelula, kushova libhayisikili ngesineke noma udlala ibhola yemphebeto? Ungakufaki ekhatsi kuhamba.

___ **Wemalanga ngeliviki**

Angikase ngashukuma kancane ➡ **Chubekela kumbuto 5**

4. Bewuvamise kutsatsa sikhatsi lesingakanani **ushukuma kancane** ngelilanga?

___ **Wemahora ngelilanga**

___ **Wemizuzu ngelilanga**

Angati/ngite siciniseko

Ake ucabange sikhatsi losisebentise **uhamba kulamalanga lasikhombisa lendlulile**. Loku kufaka ekhatsi kuhamba usemsebentini, ekhaya, usuka endzaweni lenye uya kulenye noma ngukuphi ke kuhamba kwekutilibatisa, kudlala, kutivocavoca noma kutijabulisa.

5. Kulamalanga **lasikhombisa lendlulile**, mangakhi emalanga lapho **uhambe** khona lokungenani imizuzu lelishumi ungapumuli?

___ **Wemalanga ngeliviki**

Angikase ngahamba ➡ **Chubekela kumbuto 7**

6. Bewuvamise kusebentisa sikhatsi lesingakanani uhamba ngelilanga?

___ **Wemahora ngelilanga**

___ **Wemizuzu ngelilanga**

Angati/Ngite siciniseko

Umbuto wekugcina umayelana nesikhatsi lositsetse uhleti ekhatsi neliviki **kulamalanga lasikhombisa lendlulile**. Ngabe bewuhleti emsebentini, ekhaya, wenta umsebenti wesikolwa noma ungcebelekile. Loku kungafaka ekhatsi sikhatsi lositsetse uhleti etafuleni, uvakashele bangani, ufundza, uhleti noma ulele phansi ubukela mabonakudze.

7. Kulamalanga **lasikhombisa lendlulile**, singakanani sikhatsi lositsetse uhleti ekhatsi neliviki?

___ **Wemahora ngelilanga**

___ **Wemizuzu ngelilanga**

Angati/Ngite siciniseko

SIGABA D: SIKALI SENZUZO/BULUKHUNI BEKUSHUKUMA PHECELETI Lokulandzelako ngimilayeto lehambisana nemicondvo yekushukuma. Khombisa indlela lovumelana noma longavumelani ngayo nalemicondvo ngekutsi ukupilitele **SA** nangabe uvuma kakhulu, **A** uma uvuma, **D** nangabe awuvumi, noma **SD** nangabe awuvumi mbamba.

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
1. Ngiyakutsandza Kushukumisa umtimba	SA	A	D	SD
2. Kushukumisa umtimba kwehlisa lizinga lekucabanga kakhulu.	SA	A	D	SD
3. Kushukumisa umtimba kucinisa kusebenta kahle kwengcondvo yami	SA	A	D	SD
4. Kushukumisa umtimba kutsatsa sikhatsi sami lesinyenti	SA	A	D	SD
5. Ngitawuvikela kubulawa sifo senhlitiyo ngekushukumisa umtimba.	SA	A	D	SD
6. Kushukumisa umtimba kungicedza emandla.	SA	A	D	SD
7. Kushukumisa umtimba kucinisa emandla emamasela ami.	SA	A	D	SD
8. Kushukumisa umtimba kungenta ngitive ngatsi kukhona lengikufezile emphilweni.	SA	A	D	SD
9. Tinzawo tekushukumisa umtimba tikhashane nami.	SA	A	D	SD
10. Kushukumisa umtimba kungenta ngitive ngiphumulile.	SA	A	D	SD
11. Kushukumisa umtimba kungihlanganisa nebangani bami kanye nebantfu lengibatsandzako.	SA	A	D	SD
12. Ngitiva nginemahloni nekushukumisa umtimba.	SA	A	D	SD
13. Kushukumisa umtimba kutangivikela ekutfoleni i-hayi hayi.	SA	A	D	SD
14. Kushukumisa umtimba kudulile	SA	A	D	SD
15. Kushukumisa umtimba kwenta umtimba wami ucine.	SA	A	D	SD
16. Tinzawo tekushukumisa umtimba atinginiki sikhatsi lesingilungelako kutsi ngiyotivocavoca.	SA	A	D	SD
17. Emamasela ami aya ngekucina nangichubeka nekushukumisa umtimba.	SA	A	D	SD
18. Kushukumisa umtimba kucinisa kusebenta kwemitsambo yami.	SA	A	D	SD
19. Kushukumisa umtimba kungenta ngidzinwe	SA	A	D	SD

20. Sengitivela ngiphilile ngenca yekushukuma.	SA	A	D	SD
21. Lengitsandzana naye akakukhutsati Kushukumisa umtimba	SA	A	D	SD
22. Kushukumisa umtimba kungengetela emandla.	SA	A	D	SD
23. Kushukumisa umtimba kungenta ngikhone kutelula.	SA	A	D	SD
24. Kushukumisa umtimba kutsatsa sikhatsi sami lesinyenti lengabe ngisicitsa nemndeni wami.	SA	A	D	SD
25. Similo sami sesincono ngenca yekushukumisa umtimba.	SA	A	D	SD
26. Kushukumisa umtimba kungenta ngikhone kulala kancono ebusuku.	SA	A	D	SD
27. Ngitawuphila sikhatsi lesidze uma ngishukumisa umtimba.	SA	A	D	SD
28. Bayangihlekisa bantfu labagcoke tekushukumisa umtimba.	SA	A	D	SD
29. Kushukumisa umtimba kwehlisa kukhatsala.	SA	A	D	SD
30. Kushukumisa umtimba yindlela lenhle yekutsi ngihlangane nebantfu lebengingabati.	SA	A	D	SD
31. Ngiva ngingapheli mandla mangishukumisisa umtimba.	SA	A	D	SD
32. Kushukumisa umtimba kushintja indlela lengitibuka ngayo.	SA	A	D	SD
33. Umndeni wami awungikhutsati kutsi ngishukumisa umtimba.	SA	A	D	SD
34. Kushukumisa umtimba kukhaliphisa ingcondvo yami.	SA	A	D	SD
35. Kushukumisa umtimba kungenta ngikhone kwenta yonkhe imisebenti lejwayelekile ngaphandle kwekukhatsala.	SA	A	D	SD
36. Kushukumisa umtimba kwenta umsebenti wami ube secophelweni lelisetulu.	SA	A	D	SD
37. Kushukumisa umtimba kutsatsa sikhatsi sami lesinengi lengabe ngisisebentisa kwenta imisebenti yasekhaya.	SA	A	D	SD
38. Kushukumisa umtimba yindlela lenhle lengitijabulisa ngayo.	SA	A	D	SD
39. Kushukumisa umtimba kungenta ngemukeleke kulabanye bantfu.	SA	A	D	SD
40. Kushukumisa umtimba ngumsebenti lomatima kabi kimi.	SA	A	D	SD
41. Kushukumisa umtimba kwenta umtimba wami wonkhe usebente kahle.	SA	A	D	SD
42. Tincane kakhulu tindzawo lengingashukumisa umtimba kuto.	SA	A	D	SD
43. Kushukumisa umtimba kwenta umtimba wami ube muhle.	SA	A	D	SD

Iphela lapho imibuto yetfu. Siyabonga.

APPENDIX F



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27(021)959-2542, Fax: +27(021)959-2542

LIFOMU LESIVUMELWANO

Sihloko selucwaningo: Kushukumisa umtimba kubantfu labadzala labanesifo sekuphakama kwengati eMbabane-Swaziland

Lolucwaningo luchazwe kimi ngelulwini lengiluvako, futsi ngavuma kuphendvula yonkhe imibuto lebutwekimi. Imibuto lebenginayo ngalolucwaningo iphendvulekile. Ngiyacondzakutsi libito lami gekelibhalwe Kulolucwaningo ngekutsi nginalo lilungelo kuphuma Kulolucwaningo ngapandle kwekushotizatfu, noma ngabenini angifuni futsi lokungeke kungikhinyabetena nome nganguyiphi indlela.

Libito lami:	_____	Fakazi:	_____
Inombolo yelucwaningo:	_____	Sayina lapha:	_____
Sayina lapha/Sitfupha:	<input type="text"/>		
Lusuku:	_____	Lusuku:	_____

Uma ngabe unemibuto ngalo lucwaningo noma ufuna kubika tingcinambalo hlangabetene nato lusentiwa, tsintsanana lobukelo lucwaningo.

Prof. Julie Phillips

University of the Western Cape

Telephone: +27(021)959-2542

Cell: +2772991549

Email: jphillips@uwc.ac.za

APPENDIX G



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TINCHAZELO NGALOLUCWANINGO

Sihloko selucwaningo: Kushukumisa umtimba kubantfu labadzala labanesifo senhlitiyo eMbabane-Swaziland

Lungani lolucwaningo?

Lolu lucwaningo lolwentiwa ngu **SHARON MASONA** longumfundzi weNyuvesi yeWestern Cape, eSikhwahlande. Uyacelwa kutsi ufake umbono wakho kulolucwaningo njengoba ungulomunye walabelashelwa sifo senhlitiyo eMbabane Government Hospital noma ke uyaphatseka ndlelatsite ekunakekeleni bantfu labanesifo senhlitiyo. Ingcikitsi yalolucwaningo kutfola kutsi bantfu labanesifo senhlitiyo labadzala bayashukuma yini nekwekutsi vele bayekhutsatwa yini kutsi bashukumise umtimba. Imininingwane yonkhe letotfolakala kulolucwaningo itosetjentiswa ekusiteni bantfu labanalesifo, tisebenti temphilo nebakhi bemigomo kwekutsi batfole sizatfu sekwenta kushukuma kube yindlela leshiphile yekuncoba nekuvikela sifo senhlitiyo. Itawuphindze yakhe sisekelo seluhlelo lolunebufakazi lobucinile lolutawusita betemphilo bakhe tinhlelo tekuvikela sifo senhlitiyo.

Ngitawubutwani uma ngivuma kuba yincenye yalolucwaningo?

Utawudzinga kusayina lifomu lesivumelwano ngaphambi kwekuphendvula imibuto. Njengemuntfu lonesifo, utawudzingeka kutsi uphendvule luhlu lwemibuto lolwehlukaniswe kabili ngesiNgisi noma ngesiSwati, usinikete umcondvo wekutsi ushukuma kangakanani, sikhatsi losisebentisako ushukuma, nebuhle nebulukhuni lohlangabetana nabo nawushukuma. Njengesisebenti setemphilo utawudzingeka kutsi ugcwalise luhla lunye lwemibuto ngesiNgisi ngendlela loluleka ngayo bantfu labanesifo senhlitiyo. Loluhla lwemibuto ludzinga kutsi umake (✓) noma ukipilitele inchazelo lechazisisa imphendvulo yakho. Uma ngabe unesifo senhlitiyo, utawukhulunyiswa nawucedza kubona betemphilo emtfolamphilo kantsi uma ngabe usisisebenti setemphilo utawukhulunyiswa ngesikhatsi lesilungele wena.

Uma ngivuma kuba yincenye yalolucwaningo, ngitawuvikeleka kanjani?

Sitakwenta konkhe lokusemandleni kutsi lokuphatselene nawe kungatiwa ngumuntfu.

Kute ube nesiciniseko sekuvikeleka kwakho, angeke udzingeke kutsi ubhale libito lakho ephepheni lweluhla lwemibuto noma ke usitjele lokutakwenta kutsi bantfu babone kutsi ungubani. Uma umbiko noma incwadzi ibhalwa ngalolucwaningo, sitakuvikela ngayo yonkhe indlela.

Yini tinkinga lengingahlangabetana nato uma ngivuma kuba yincenye yalolucwaningo?

Kute tingcinamba letatiwako letibangwa kuba yincenye yalolucwaningo.

Yini inzuzo yalolucwaningo?

Lolucwaningo alukakhelwa kutsi lusite wena sici sakho, kodvwa lesitakutfole kulo kungasita umcwaningi afundze lokuningi ngesidzingo sekushukuma kute kutfutfuke temphilo kubantfu labanesifo senhlitiyo. Siyetsemba kutsi, ekuhambeni kwemalanga, labanye bantfu bangazuza kulolucwaningo ngekutsi bacondze sidzingo sekutfutfukisa kushukuma kute sincobe sifo senhlitiyo.

Yini inzuzo lebhekekile kutescience nesive kulolucwaningo, uma ngabe ikhona?

Lolucwaningo lutawusita ekutfutfukiseni kushukuma kubantfu labanesifo senhlitiyo luphindze lukhutsate tisebenti temphilo kutsi teluleke bantfu labanalesifo nabasetama kusincoba basatfole kwelashwa eMbabane Government Hospital – eSwatini.

Kudzingeke ngani kutsi ngibe yincenye yalolucwaningo futsi ngingayekela yini uma sengingasafuni kuchubeka?

Kuba yincenye yalolucwaningo kusekuvumeni kwakho. Ungakhetsa kungabi yincenye nawufuna. Uma futsi uvuma kuba yincenye, uvumelekile kuyekela uma ungasakhoni kuchubeka. Uma ungasafuni kuba yincenye yalolucwaningo noma ungasafuni kuchubeka nalo, angeke uhlawuliswe nome umukwe loko lokuselungelweni lakho.

Kukhona yini lusito lengitalutfole uma ngiphatseka kabi ngekuba yincenye yalolucwaningo?

Uma kungenteka uphatseke kabi, utawelulekwa noma wendluliselwe kulabanye bati betemphilo kute bakunakekele noma bakweluleke ngaphandle kwekubhadala imali.

Ngenta njani uma nginemibuto?

Lolucwaningo lwentiwa ngu**SHARON MASONA** losetikweni lePhysiotherapy eNyuvesi yeWestern Cape.

Uma unemibuto ngalolucwaningo, ungatsintsana naye **SHARON MASONA** ku: University of Western Cape, Cape Town, South Africa, Phone: +27725215829/+26876219223, Email: smasona@yahoo.co.uk.

Noma

Prof. Julie Philips

University of the Western Cape

Private Bag X17, Bellville 7535.

Telephone number: +2721959 2542

E-mail: jphilips@uwc.ac.za

Uma unemibuto ngalolucwaningo, noma ufuna kwati kabanti ngemalungelo akho njengemhlanganyeli noma ke ufuna kubika tinkinga lohlangabetene nato useyincenye yalolucwaningo, ungatsintsa:



Head of Department:

Dean of the Faculty of Community and Health Sciences:

University of the Western Cape

Private Bag X17

Bellville 7535

Lolucwaningo lwentiwe ngemvume yeNyuvesi yeWestern Cape's Senate Research Committee kanye ne Ethics Committee.

APPENDIX H



**OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT**

11 March 2013

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape has approved the methodology and ethics of the following research project by:
Ms S Masona (Physiotherapy)

Research Project: Physical activity participation among adults with hypertension in Mbabane, Swaziland.

Registration no: 13/2/30

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink, appearing to read 'P. Josias'.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

Private Bag X17, Bellville 7535, South Africa
T: +27 21 959 2988/2948 . F: +27 21 959 3170
E: [pjiosias@uwc.ac.za](mailto:pjosias@uwc.ac.za)
www.uwc.ac.za

A place of quality,
a place to grow, from hope
to action through knowledge

APPENDIX I

Telegram: _____
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MINISTRY OF HEALTH
P.O. BOX 5
MBABANE
SWAZILAND

THE KINGDOM OF SWAZILAND

FROM: The Chairman
Scientific and Ethics Committee
Ministry of Health
P. O. Box 5
Mbabane

TO: Sharon Masona
Student researcher

DATE: 16th May 2013

REF: MH/599C/FWA 000 15267

RE: Physical Activity Participation among Adults with Hypertension in Mbabane Swaziland

The committee thanks you for your submission to the Swaziland Scientific and Ethics Committee on the amendments and an updated protocol.

In view of the importance of the study and the fact that the study is in accordance with ethical and scientific standards, the committee therefore grants you authority to conduct the study. You are requested to adhere to the specific topic and inform the committee through the chairperson of any changes that might occur in the duration of the study which are not in this present arrangement.

The committee requests that you ensure that you submit the findings of this study (Electronic and hard copy) to the Secretariat of the SEC committee; you will need to seek permission from the committee before you can publish the findings of this study.

The committee further requests that you add the SEC Secretariat as a point of contact if there are any questions about the study on 24047712/24045469.

The committee wishes you the best and is eagerly awaiting findings of the study to inform proper planning and programming to use for analysis.

Yours Sincerely,

Handwritten signature of Dr S.V. Mugagula.

Dr S.V. Mugagula
DEPUTY DIRECTOR OF HEALTH SERVICES
(THE CHAIRMAN)
cc: SEC members



APPENDIX J



Mbabane Government
Hospital

P.O. Box 6
Mbabane
Swaziland

Telephone: 404-2111/9
Fax 404-6471

THE KINGDOM OF SWAZILAND

03th June 2013

MS SHARON MASONA
UNIVERSITY OF WESTERN CAPE,

Dear Sharon,

RE: YOUR REQUEST /AUTHORIZATION FOR PERMISSION TO CONDUCT A STUDY AT MBABANE GOVERNMENT HOSPITAL TITLED "PHYSICAL ACTIVITY PARTICIPATION AMONG ADULTS WITH HYPERTENSION IN MBABANE SWAZILAND"

I refer to your letter dated 13/01/2013 requesting to be granted permission to obtain information on the above mentioned subject in our institution. I am pleased to inform you that the Hospital Management has accepted your request as stated above. I would however appreciate it, if findings and recommendations could be communicated back to the hospital.

Thank you.

Yours sincerely,


MA DLAMINI

SENIOR MEDICAL OFFICER

