ANALYSIS OF HYGIENE PRACTICES AMONG LEARNERS IN SELECTED MAKHADO MUNICIPALITY SECONDARY SCHOOLS IN LIMPOPO PROVINCE.

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A mini dissertation submitted in partial fulfilment of the requirements for the degree of Master of Public Health in the School of Health Sciences, University of Venda.

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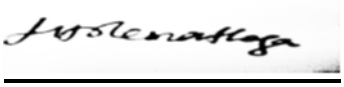
Promoter: Prof Nemathaga L.H Signature:  **Date: 21/02/2022**

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DECLARATION

I, Mamafha N.C, declare that the mini dissertation titled ***"Analysis of hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo province"*** hereby submitted for the degree, Master of Public Health (MPH) at the University of Venda has not been submitted before by me at this or any other university and that it is my own work in design and execution. All the sources that I have quoted and cited have been indicated, acknowledged, and referenced.

Signature  **Date** : 21/02/2022

DEDICATION

This study is wholeheartedly dedicated to my parents, my supportive husband, and my kids.

ACKNOWLEDGEMENT

I would like to extend my sincere thanks to my main supervisor Prof. Nemathaga L.H and my co-supervisor Dr. Mudau A.G, for helping and directing me in carrying out this research. I would like to thank the University of Venda for the opportunity to learn. I would also like to thank the Department of Education for granting me permission to conduct my research with their learners. All learners who participated in my research thank you so much, the study was possible because of you.

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Above all, thanks to the God of Mount Zion for being with me throughout.

ABSTRACT

Hygiene is a health determinant; a person's state of health is determined by the hygienic conditions where he or she finds himself or herself. Poor knowledge, negative attitude and poor practices of hygiene have a negative effect on a person's health, as there are diseases associated with poor hygiene practices. The purpose of the study was to analyse hygiene practices of learners in selected Makhado Municipality secondary schools in Limpopo province. The study adopted the quantitative approach. The researcher used cross sectional descriptive design. The population for this study were learners from grade 8 from the following 5 Secondary Schools under Nzhelele Central Circuit: Tshala, Dimbanyika, Tshamakwatini, Tswime and Velelambeu. Non-probability, purposive sampling method was adopted to select the respondents. A self-administered questionnaire consisting of close-ended questions was used to collect data from 250 respondents. Data was analysed using the Statistical Package for Social Sciences (SPSS), version 25,0. Data was analysed The validity of the instrument was ensured through face and content validity. The researcher ensured reliability of the instrument by using the test-retest method. Code of ethics to protect the rights of participants were applied and observed. The study revealed that 93% of respondents knew that diseases could spread from a person to another and 7% of respondents did not know that disease can spread from a person to person. 85% of respondents did not know that washing with or without a soap is the same. Furthermore, the study revealed that 71% of respondents do not eat from the same plate with someone and 75% sometimes do eat with someone in the same plate. The study also revealed that 60% of respondents wash their teeth twice a day and 37% once a day. The study concludes that high school learners have high knowledge regarding hygiene practices. The study also concludes that learners had higher knowledge regarding the spread of diseases. Recommendations: it is recommended that professional nurses and social workers should conduct awareness campaigns regularly in both clinics and schools to reinforce knowledge among young people about hygiene practices. Government should impose harsh laws against people found littering which will jeopardise public's health.

Keywords: Analyse, hygiene, practices.

LIST OF ACRONYMS AND ABBREVIATIONS

DHE: Dental Health Education

GHD: Global Hand-washing Day

KAP: Knowledge Attitude and Practice

MHM: Menstrual Hygiene Management

NGOs: Non-Governmental Organizations

RTI: Reproductive Tract Infections

STH: Soil-Transmitted Helminthes

UNICEF: United Nations International Children's Emergency Fund

WASH: Water, Sanitation and Hygiene

WHO: World Health Organization

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CHAPTER 1: INTRODUCTION

Considerable proportions of diseases in the world are communicable, wherein 60% are transferrable. Awareness about hygiene, positive attitude and good practice hygiene are key to reduce the spread of communicable diseases problems, particularly in institutions like education settings (Gebreeyessus & Adem, 2018). Proper hygiene is rooted in a wide and complex set of social standards and views. In addition, proper hygiene is interrelated with concerns of neatness, social standing, respect and being civilized. Hygiene is all about maintaining clean environment and preventing diseases that can be caused by poor environmental sanitation, by safely disposing waste within the environment in which a person stays. Furthermore, hygiene is a health determinant; a person's state of health is determined by the hygienic conditions where he or she finds himself or herself. Practising good hygiene is significant to the overall health and wellbeing of a person, more importantly in preventing the spread of communicable diseases (Gebreeyessus & Adem, 2018). Germs which cause diseases to a person can spread directly through contact of one person to the other or from a pet to a person contact and indirectly through eating food which is contaminated. Sicknesses such as food poisoning, gastroenteritis, diarrhoea, pneumonia, skin infections, colds and flu can be caused by poor hygiene practices.

1.1 BACKGROUND OF THE STUDY

Hygiene is an important basic aspect in the quality of life and the development of a person. It is an essential obligation to safeguard safe health, and the overall wellbeing of the people (Mohd & Malik, 2017). Hygiene is a significant public health concern globally (Temitayo, 2016). This is because inadequate sanitation and hygiene is a major concern in schools, due to greater potential for disease transmission among school learners (Shilunga, Amukugo & Mitonga, 2018).

Poor hygiene practice caused plague of diseases of above 2 billion people globally, with different types of worm infections which resulted in financial burden and cost related problems in the health sector (Mensah-Kufuor & Gablah, 2017). Prevention of infectious diseases, such as diarrhoea, trachoma and numerous other diseases is very much possible through practising good personal hygiene practices. McMichael (2019) contends that globally there are school-based WASH intervention aimed at reducing the incidences of diarrhoeal and other diseases related to hygiene, as well as to influence hygienic practices of children and parents, wherein they become agents of change at home and in their communities.

Thakadu, Ngwenya, Phaladze & Bolaane (2018) indicated that globally diarrhoeal-related deaths among adolescents are in the top 10 among 10- to 19-year-olds. Thakadu et al. (2018) further indicated that improved hygiene practices are viewed as important in decreasing the threats of spreading infectious illnesses and they also improve the health of the public.

Hutton & Chase (2016) indicated the diarrheal disease mortality prevalence due to poor hygiene in middle- and low-income countries with Africa affecting (122,995) populace, America (5026), Eastern Mediterranean (28,699), Europe (1972), South and Southeast Asia (131, 519), Western Pacific (6690). According to Hutton and Chase (2016), about 89.9 million of STH (soil-transmitted helminthes) illnesses in children going to school are in Sub-Saharan Africa.

Cross-contamination which occurs during preparation of food is one of the causes of the transmission of campylobacteriosis internationally and New Zealand has been found to have a high degree of campylobacteriosis illnesses than the rest of the developed world, in 2006 15 873 cases of campylobacteriosis illnesses were reported at cases of 384 per 100 000 population (Sakkaf, 2013).The study conducted in India (Sarkar, 2013) revealed that poor health conditions in school going children is due to insufficient knowledge regarding the health benefits of practising good hygiene.

Main causes for the increased childhood illnesses and deaths in the developing countries is as a result of intestinal infections and acute respiratory illnesses, wherein in Egypt diarrheal disease accounts for many deaths of children who are under 5 years old (Hazazi, Chandramohan, Khan & Mohaithef, 2018). The study by Elsabagh, Atlam & Shehab (2016) revealed that Ethiopia had a high level of awareness among children regarding the requirements of good hygiene practices which includes using soaps when cleaning hands. The study conducted in Namibia by Shilunga, Amukungo & Mitonga (2018) on the knowledge, attitude and practices of learners on sanitation and hygiene practices reported that 53% of the learners had knowledge about hand washing, and 47 % of learners did not know about the importance of washing hands before food preparation even though they appear clean. 45% of the learners knew that hand washing with water only after using a toilet does not protect a person against illnesses, while 55% of learners did not know the difference of washing hands with water only and using a soap.

Kumwenda, Samanyika, Chingaipe, Mamba, Lungu, Mwendera & Kalulu (2014) reported that in Malawi the coverage of hygiene is low compared to water supply and sanitation. They further found that it is a significant factor in the spread of diseases and most of the diarrheal and parasitic diseases are caused by lack of proper hygiene practices.

The study conducted by Sibiya & Gumbo (2013) indicated that two secondary schools in South Africa, Limpopo province, Vhembe District (Gole Secondary School and Thase Secondary School) reported a water-related disease (Bilharzia). The disease was detected by the local clinic in about eight learners.

According to Temitayo (2016) children who are educated about the effective ways of practising of hygiene may follow proper hygiene procedures even when they are adults. Thakadu et al,

(2018) further indicated that education about hygiene at schools has been included in the learning programme and teachers go through in-service training on hygiene.

UNICEF, Governments and stakeholders initiate Global Hand-Washing Day (GHD) annually, where they engage with the public providing awareness about the importance of washing hands with soap at critical times. UNICEF supports for hygiene promotion focuses on schools. This is promoted through a daily group hand-washing model, in which all students are required to use soap when washing their hands, as a way of reinforcing the tradition of good hygiene behaviour through positive power of social norms and peer inspiration (UNICEF, 2012). McMichael (2019) indicated that interventions promoting hygiene did not reduce the rate of diseases related to diarrhoea.

1.2 STATEMENT OF THE PROBLEM

There are many diseases which can be caused by improper hygiene practices. In addition, most rural-based public schools in South Africa do not have adequate water supply and sanitation facilities. 78% percent of schools in Limpopo Province rely on water from the boreholes as their primary source of water. Thus, learners tend to rely on one tap which caters for the whole school, and they do not have bins for girls to dispose used sanitary towels. There are also school vendors in the school premises, who sell food prepared at home. Clearly, there is a risk of food borne diseases if they do not follow hygienic food preparation practices. Poor hygiene has negative effects on health and school attendance.

The researcher was working as the Learner Support Agent at School. She has observed that learners do not practise proper hand washing practices such as washing their hands before eating and also after using a toilet. She has also observed that toilets are always dirty and male learners urinate on the floor, and these practices can put learners' health at risk as they can be in contact with disease-causing organisms. The researcher also found that about 80% of learners from the school where she was working often ask for permission to visit the clinic due to diarrhoea, flu and toothache. The researcher also observed that the community does not have an adequate water supply system, as the result, community members buy water from those who have boreholes in their homes. It is against this background that the researcher decided to conduct the study on analysis of hygiene practices among learners in selected Makhado Municipality Secondary Schools in Limpopo Province.

1.3 RATIONALE OF THE STUDY

Few studies have been conducted in Limpopo Province on poor sanitation and hygiene. There is only one known study by Sibiya & Gumbo (2013), which was titled "knowledge, attitude and practices (KAP) survey on water, sanitation and hygiene in selected schools in Vhembe District,

Limpopo Province, South Africa". Therefore, it was important to conduct a study on analysis of hygiene practices among learners in selected Makhado Municipality Secondary Schools in Limpopo Province because hygiene-deficiency diseases have been found to be a serious public health problem, especially in the developing countries. The study's recommendations may also assist the Department of Health and the Department of Education to develop strategies to address personal hygiene practices and reduce diseases associated with improper hygiene practices.

1.4 SIGNIFICANCE OF THE STUDY

The study may benefit the Department of Health financially as the cost of treating preventable diseases may be reduced. It may also benefit the Department of Education, as it may reduce absenteeism and the pass rate will increase. It may also benefit the community, as it may reduce the number of deaths caused by poor hygiene practices. Financially, it may also benefit families by reducing the hospital bills.

1.5 PURPOSE AND OBJECTIVES OF THE STUDY

1.5.1 PURPOSE OF THE STUDY

The purpose of the study was to analyse hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo Province.

1.5.2 OBJECTIVES OF THE STUDY

The objectives of the study were to:

- Assess the learners' level of knowledge regarding hygiene in selected Makhado Municipality secondary schools in Limpopo Province.
- Describe hygiene practices of learners in selected Makhado Municipality secondary schools in Limpopo Province.
- Analyse the hygiene practices of learners in selected Makhado Municipality secondary schools in Limpopo Province.

1.6 DEFINITION OF KEY TERMS

Analysis: Refers to detailed examination of elements or structure of something (Oxford Advanced Learner's Dictionary, 2020). Analysis in this study refers to studying/ learning more about ways/ activities of practising hygiene.

Hygiene: Is the practice of keeping oneself and one's surrounding clean, in order to prevent illness or the spread of diseases (Gebreeyessus & Adem, 2018). In this study hygiene are the conditions and practices which are useful in maintaining health and preventing the spread of diseases.

Practices: Is doing an activity or training regularly so that you can improve your skill.

(Oxford Advanced Learner's Dictionary, 2020). In the study practices are the standards of maintaining proper hygiene to prevent the spread of diseases.

1.7. SUMMARY

This chapter outlined a brief background of the topic on poor hygiene practices, knowledge regarding hygiene. It includes the rationale of the study wherein the researcher explained the reason of conducting this research study. The researcher also explained the aim of the study and the objectives of the study were outlined. The researcher also explained the significance of the study and the key terms are defined in the context of the study.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

In this chapter the researcher revised existing writings from different schools of thought on the hygiene practices.

2.2. OVERVIEW OF HEALTH EFFECTS OF IMPROPER HYGIENE PRACTICES

Personal hygiene is the science of the healthy-living of an individual. Personal hygiene includes all those personal factors which influence the health and wellbeing of an individual. It includes bathing, clothing, washing hands, care of nails, feet and teeth (Kumar & Akoijam, 2015). Hygiene is one of the powerful factors of human growth, as it influences the quality of life on many aspects, such as enhanced health and financial standing (Mensah-Kufour & Gablah, 2017). Vivas, Gelaye, Absoset, Kumie, Berhane & Williams (2010) stated that practising poor hygiene plays a significant role in increasing problems of transmittable diseases in developing countries. It is highly possible to prevent the spread of communicable diseases such as trachoma and diarrhoea by the means of applying proper personal hygiene practices. Awareness of hygiene and practising good personal hygiene is essential in a person everyday activity. It is important to be well informed about proper practices of personal hygiene as this knowledge can be used in preventing and controlling public health illnesses which are dominant in our communities.

2.3. COMPONENTS OF PERSONAL HYGIENE PRACTICES

According to Kumar and Akoijam (2015) personal hygiene is the discipline of healthy living of an individual. Basic personal hygiene refers to ways that help maintain health and prevent the spread of diseases. It includes regularly bathing, hand washing, trimming of nails, brushing teeth, and caring for gums Oyibo (2012).

2.3.1. HAND HYGIENE

Hand washing is an important type of personal hygiene practice. Germs on the hands pass in the person's body through touching eyes, nose, mouth, and ears. We get infectious mostly by touching mouth, nose, eyes and ears with dirty hands. Infections are mostly caught when we put the dirty hands to our mouth. In addition, a person can get infected by touching food before washing hands (Odimayo, 2018). According to WHO (2009) "hands are the main pathways of germ transmission; therefore, hand hygiene is the measure to avoid the transmission of harmful germs and prevent infections".

2.3.2. FINGERNAIL AND TOENAIL HYGIENE (NAIL CARE)

It is important to perform appropriate nail care, trimming fingernails and cleaning them thoroughly, as fingernail can carry germs and can cause the spread of some infections like pinworms. Trimming nails regularly and keeping them clean and short can help stop the spread of such diseases (Centres for Disease Control and Prevention, 2016). Clean hands, trimmed nails prevent spread of germs into a person's mouth, eyes, nose and ears. Therefore, it is important to avoid putting nails inside the nose and ears, biting nails and touching eyes (Holland, 2018).

2.3.3. MENSTRUAL HYGIENE

Upashe, Tekelab & Mekonnen (2015) indicated that menstrual hygiene can be best managed by using sanitary towels and thoroughly washing genital area. They further stated that inappropriate menstrual practices can influence the health of girls. This is because girls are susceptible to reproductive tract infections and pelvic inflammatory diseases. Sarma (2018) indicated that changing sanitary towels every four hours and washing hands every time after changing sanitary towels are the important acts towards ensuring good hygiene during periods.

2.3.4. ORAL HYGIENE

Jabeen & Umbreen (2017) indicated that oral hygiene is the way of keeping the oral cavity free from pathological conditions that can affect a person's mouth human mouth, such as gum diseases and cavities. Berry (2019) observed that good oral hygiene includes practices such as brushing of teeth two times a day and going for dental check-ups regularly, as it is important to keep one's mouth, gums and teeth and healthy.

2.4. HEALTH EFFECTS OF POOR PERSONAL HYGIENE PRACTICES

Practicing proper personal hygiene is associated with less infections, improved health and wellbeing. Poor personal hygiene lifestyles, however, can lead to some minor side effects, such as body odour, and greasy skin. They can also lead to more troublesome or even more serious issues; for example, if you do not wash your hands frequently, you can easily transfer germs and bacteria to your mouth and eyes and these can lead to number of issues like stomach viruses to pink eye (Holland, 2018).

2.4.1. PHYSICAL EFFECTS OF POOR PERSONAL HYGIENE PRACTICES

Sarkar (2013) indicated that most common diseases linked to poor personal hygiene practices include worm infections, skin diseases, diarrhoeal diseases and dental diseases.

- Bad odour and bad breath

Bad body odour are produced because of activities of different body organs, which can be caused by chemicals in sweat and pheromones. Unpleasant body odour is one of the consequence of poor hygiene practices. Body odour occurs due to the interaction of bacteria and sweat produced by the apocrine glands. As the bacteria thrives in unwashed sweat, over time the by-products produce the smell commonly associated with body odour (Sherwood, 2018). Ettikan (2014) mentioned that poor oral hygiene causes bad breath, which is known as halitosis. Halitosis is caused by the release of Sulphur compounds by bacteria in the mouth.

- Skin diseases

Legesse & Argaw (2004) mentioned that “sweat and oily secretion from the skin can cause dust to stick on its surface; the bacteria can easily breed on the surface of the skin to cause various disease and undesirable odours”. Legesse & Argaw (2004) further indicated that because of poor personal hygiene, germs and parasites that settle on the skin can produce a lesion, systematic infections are likely to occur.

- Pinworm (Enterobiusvermicularis)

Centres for Disease Control and Prevention (2016) stated that pinworms, or Enterobiusvermucularis, are small, thin, white roundworms that sometimes live in the colon and rectum of humans. a person with pinworm infection experience itching and scratching of the anal area. Amiri, Rahimi, Mahdavi, Moosazadeh, Ramzani, Koshk, Rosbehan & Siyadaptpanah (2016) stated that pinworm is one of the most often encountered intestinal nematodes and infects millions of people throughout the world. People infected with pinworm experience restlessness, sleeplessness, diarrhoea, abdominal cramps, anal itching and endometritis.

- Food borne diseases

Sakkaf (2015) stated that in New Zealand one of the major risk factor for food borne diseases is food handling practices because of cross-contamination during preparation of food and it is considered as key factor in the transmission of campylobacteriosis internationally. Snyder (2017) reported that 76 million food-borne illnesses occur every year and 70% of those diseases are caused by improper hand washing.

- Diarrhoea

Pruss-ustun,Bartram, Clasen, Colford, Cumming, Curtis & Cairncross (2014) reported that in about 2012 842, 000 diarrhoea related deaths were estimated to have resulted from inadequate WASH, of which 502,000 were related to water problems; 280,000 from lack of proper sanitation

and 297, 000 from poor practices of hand hygiene. This represents over an estimated 1.5 % of the total disease burden. Baker, O'Reilly, Levine, Kotloff, Nataro, Ayers, Farag, Wasrin, Blackwelder, Alonso, Breiman, Omore, Faruque, Das, Ahmed, Saha, Sow, Sur, Zaidi, Quadri & Mintz (2016) emphasized that diarrhoeal disease is the second leading factor of death in children. They further indicated that regular bouts of diarrhoea also cause long-term damage to the gut, malnutrition, and growth stunting.

- Hookworm infections

Hookworms are among the most widespread of soil-transmitted intestinal helminth parasites. Hookworm infection in human is a chronic infection which transmitted through contact with soil which is contaminated. It is one of the most chronic infections (Fikresilasie, 2015). Loukas, Hotez, Diemert, Yazdanbakhsh, Mc Carthy, Olivia, Croese & Bethony (2016) mentioned that hookworms reside for many years in the small intestine of their human hosts.

- Reproductive tract infections

Kumar, Prasuna & Seth, (2017) stated that managing menstrual hygiene poorly managed can cause rashes and itching in the perineal region, unpleasant odour and also major problems such as toxic shock syndrome and pelvic inflammatory disease. Sumpter & Torondel (2013) reported that reproductive tract infections and anaemia can be caused by poor management of menstrual hygiene.

- Dental diseases

Shenoy & Sequeria (2010) contend that children with poor oral health are 12 times more likely to have restricted-activity days. Jabeen & Umbreen (2017) mentioned that there is collaboration between oral health and overall health. Cardiovascular diseases, respiratory infections, stroke and nutritional problems can be caused by poor oral hygiene.

2.4.2 SOCIAL EFFECTS OF POOR PERSONAL HYGIENE PRACTICES

- Isolation

People might isolate themselves from a person with poor personal hygiene because they might find it difficult or sensitive to tell them to manage their personal hygiene properly. A person with good personal hygiene has dignity, pride and comfort in public places as it is important for self-esteem also (Holland, 2018). Looking presentable and smelling nice can give a person good self-esteem and poor personal hygiene can make one feel uncomfortable especially in public places (Holland, 2018).

- Poor School attendance

UNICEF (2016) indicated that most learners have difficulty attending school when they become sick with diarrhoeal disease because of failing to practise good hygiene. Philips Howard et.al (2016) stated that improper menstrual hygiene management (MHM) impacts a girl's dignity, wellbeing, and engagement in school activities. Vashitsht, Pathak, Patavegar & Panda (2018) stated that poor menstrual hygiene practices may lead to having a sense of shame, anxiety, and embarrassment resulting in absenteeism and poor academic performance at school. Sarkar (2013) mentioned that when children repeatedly become sick the repeated attacks of infections often compound the existing poor health of children, affecting children's performance in the classroom and school attendance.

Shenoy & Sequeira (2010) indicated that children who suffer from poor oral health are twelve times more likely to have more restricted-activity days, including missing school. Shenoy & Sequeira (2010) further indicated that annually, learners lose more than 50 million hours because of oral diseases which affect school attendance.

2.5 PROMOTION OF A POSITIVE ATTITUDE TOWARDS HYGIENE PRACTICES

UNICEF (2016) reported that other countries in the world have insufficient knowledge or awareness about proper hygiene practices and their responsibilities in preventing the spread of diseases. People lack soap, safe water and washing facilities, even though they have some knowledge of good hygiene behaviour.

2.5.1 WATER, SANITATION AND HYGIENE (WASH)

WASH interventions were implemented to lessen infections, and may be related to better nutrition outcomes in children (Dangour, Watson, Cumming, Boisson, Che, Velleman, Cavill & Uauy 2013). Furthermore, Hutton and Chase (2017) mentioned that clean drinking water, sanitation, and hygiene (WASH) are important in improving people standard of living. McMichael (2019) indicated that WASH interventions at schools aim to decrease the incidences of diarrhoea and other hygiene-related diseases; improve school enrolment, school performance, and attendance; and influence hygiene practices of parents and siblings, whereby children act as agents of change in their households and communities.

- Health promotion programs on personal hygiene

Gupta, Gupta, Singal & Meharda (2018) indicated that it is important to make sure that knowledge about menstrual hygiene is effective among adolescents to achieve Millennium Development Goal (MDG) 2 which is universal because it has both direct and indirect effect in achieving MDG and in promoting good reproductive health.

Bieri, Gray, Williams, Raso, Li, Yuan, He, Li, Guo, Li & McManus (2013) stated that health-education information increase learner's awareness about soil-transmitted helminths and lead to a change in behaviour and decreased the incidence of infection within 1 school year.

According to Curtis, Cairncross & Yonli (2000) the effective way to be employed in decreasing the global problem is through improving domestic hygiene. Sarkar (2013) mentioned that parents should take responsibility of educating their children about personal hygiene. Sakar (2013) further observed that "maternal education appears to have a direct relationship with the practices of personal hygiene among children, meaning not only formal education, but continuing health education program of the parents by health workers, television and other Medias may influence good hygiene practices".

Sarkar (2013) indicated that poor health among school children is a result of lack of awareness of the health benefits of personal hygiene. Diarrhoeal diseases, skin diseases, worm infections and dental diseases are commonly associated with poor personal hygiene.

- Improving adherence to hand hygiene practice

Kumar & Akoijam (2015) reported that hand washing with soap lessens diarrhoeal diseases by 44% and respirational infections by 23%. Vivas, Gelaye & Williams (2010) emphasized that previous studies have reported that children who wash their hands properly are less likely to report respiratory and gastrointestinal symptoms. Sarkar (2013) mentioned that most of the childhood illnesses can be prevented through health education as an effective way of promoting hygienic practices among children, this can be done by parents at home and teachers at schools. According to Oyibo (2012) practicing good hand hygiene learned through health education have been reported to be associated with low prevalence of communicable diseases in school children".

- Dental Health Education (DHE)

Priya, Asokan, Jonani & Kandaswamy (2019) reported that dental health education has a positive impact on the oral health awareness, practice behaviour and health status of children. Priya et al, (2019) further indicated that school is an important setting for learning, and it does not only contribute to an individual's education but also to their health and health-related behaviour.

- Proper resources and facilities

Sibiya & Gumbo (2013) availability of proper facilities for sanitation plays a vital role in influencing good hygiene practices in schools. They further observed that only 25% of schools had hand washing areas that were located inside the flush toilets, although there was no soap provided

and the remainder of schools (75%) had only one tap, which was located at the centre of the school and was about 100 m from the toilets". Therefore, it acted as a barrier for learners to practice good hygiene and resulted in communicable diseases.

Sommer, Schmitt, Clatworthy, Bramucci, Wheeler & Ratnayake (2016) stated that the lack of water, proper/ clean toilets and disposal bins limits girls to manage their menstruation hygiene at home, schools and other public places. Therefore, "MHM facilities and services should be established in a sustainable, safe, and appropriate manner". Having access to adequate water, good hygiene and proper sanitation is important in reducing and preventing health risks (Rusca, Alda-Vidal, Hordjik & Kral, 2017).

2.6 GOVERNMENT AND NON-GOVERNMENTAL ORGANIZATIONS (NGOs) COLLABORATION

Sarkar (2013) indicated that government and NGOs partnership can be effective in promoting good hygiene practices. McDonald & Bailie (2010) stressed in their study that "multifaceted interventions are required to ensure that household water and sanitation technology are functional, hygiene behaviour change is achieved and environments that enable good hygiene behaviour are created".

2.7 CONCLUSION

Good personal hygiene is one of the benefits of good health practices. Practising good hygiene also helps prevent illnesses and infections from bacteria and viruses. It also protects significant others form communicable diseases as diseases are preventable through practising good personal hygiene. Continuous health promotion programs are effective as they constantly remind the public about practising good hygiene and make the public aware of the illnesses that are caused by poor hygiene practices.

2.8. SUMMARY

The researcher reviewed different literatures which are similar to the title of the study. The chapter discussed the effects of poor hygiene practices on physical and social aspects.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The following aspects have been covered in this chapter: how the study was designed, setting of the study where the study was conducted, the target population, the instrument that was used to collect data as well as data analysis. Ethical considerations where-in the researcher explained how the ethical rules before, during and after conducting the study was followed, were also discussed.

3.2 STUDY DESIGN

Quantitative research approach has been adopted. “The quantitative approach provides a high level of quantity as well as a high degree of reliability. The quantitative approach is also advantageous, as it reduces the researcher’s bias, as compared to the qualitative approach, where the researcher interacts with the respondents in the process of data collection” (Akinsola, 2015). The researcher chose the quantitative research approach because she wanted to analyse learners’ hygiene practices statistically; statistical methods reduce bias in research. The researcher used cross-sectional descriptive design. The researcher chose cross-sectional descriptive design because data was collected at a defined time.

3.3 STUDY SETTING

The study was conducted in 5 schools which fall under the Nzhelele Central Circuit in Makhado Municipality, Vhembe West District in Limpopo Province, South Africa. The selected schools are rural-based Secondary Schools in the Nzhelele area. The study area in which schools are situated, consists of both employed and unemployed residents. The villages within the area do not have access to running water; they buy water from those who have cars and those who have boreholes in their homes. Most of the residents wash their clothes in the river and at irrigation schemes. The residents also use pit latrines. The schools use water from the boreholes and most schools have one tap which caters for the whole school. They also use water from the borehole when preparing food for learners at schools. The schools also use pit latrines.

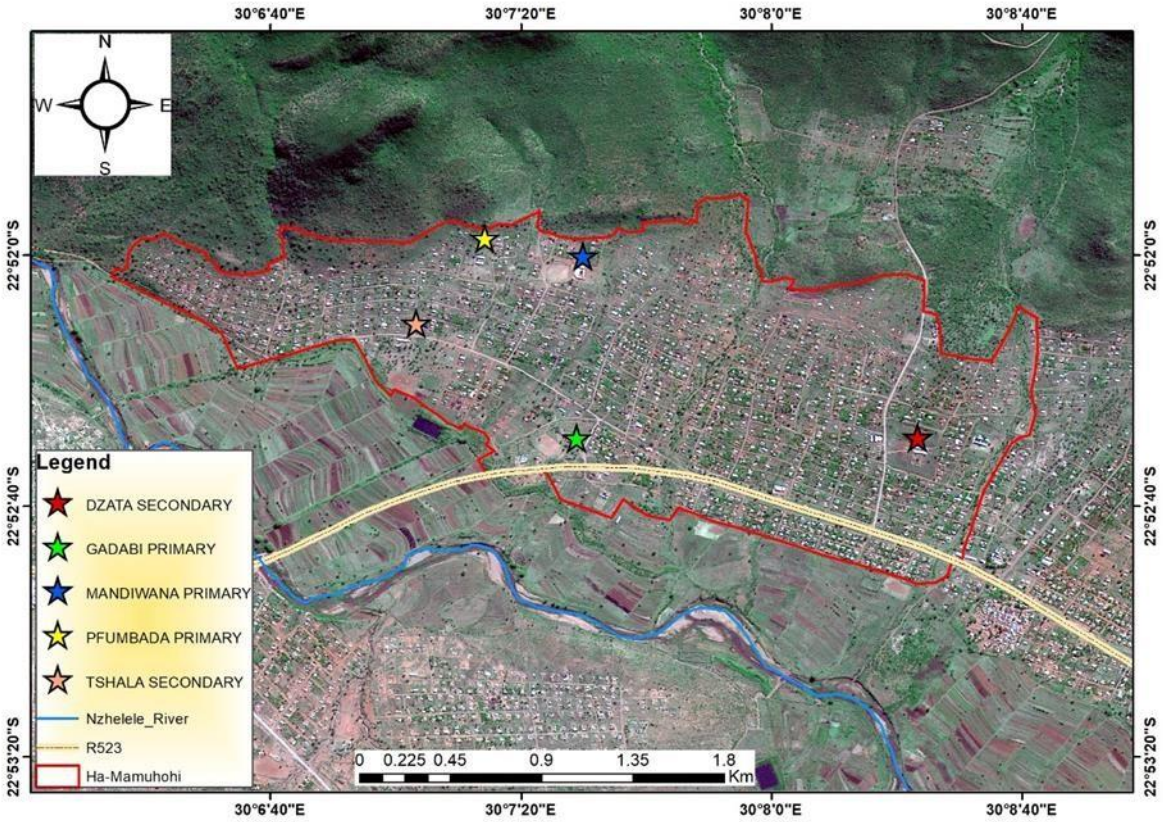

Figure 3.3: Map of Nzhelele area, where the selected Secondary Schools are situated in the Makhado Municipality.

3.4 STUDY POPULATION AND SAMPLING

3.4.1 TARGET POPULATION

According to Neuman (2011) population is an intellectual knowledge of a large group of many cases from which a researcher draws a sample and the results from the sample are generalized. The population of this study consisted of all learners in grade 8 from the following Nzhelele Central Circuit Secondary Schools: Tshala, Dimbanyika, Velelambeu,Tswime and Tshamakwatini.

3.4.2 SAMPLING

Sampling is the procedure of choosing representative elements of a population for study in a research study. The purpose of sampling is to increase efficiency of a research study" (Ankinsola, 2005). The researcher used non-probability sampling adopting purposive sampling. The researcher also used total population of learners in grade 8 from the selected circuit. The researcher chose purposive sampling because the study area possesses the characteristics that the researcher is interested in studying. The researcher chose total population to avoid generalizing the results.

3.5 MEASUREMENT INSTRUMENT (QUESTIONNAIRE)

The researcher collected data from the respondent's using questionnaire. The researcher used a self-administered questionnaire. The questionnaire was prepared in English. The questionnaire had closed-ended questionnaire. The instrument was divided into four sections, section one covered biographical information; sections two to four covered the three study objectives. A questionnaire was chosen because it reduces researcher bias during data analysis. The questionnaires were completed after school and the duration was 45 minutes.

3.6 PRE-TEST

The researcher pre-tested the instrument with 10% of the learners at a nearby secondary school, as they share the same characteristics. The results were used to rectify and modify the instrument, by ensuring that respondents understand the questions on the questionnaire.

3.7 VALIDITY AND RELIABILITY

Validity is the capability of a research tool to measure what it is intended to measure (Kumar, 2005). Reliability is also defined as the accuracy and consistency of a measurement, a matter of whether a technique applied repeatedly to the same objects produces the same results each time" (Babbie, 2010).

3.7.1 Face Validity

To ensure face validity, the researcher presented the questionnaire to the supervisors, departmental seminars, and Higher Degree's Committee. The researcher modified the instrument (questionnaire) based on the feedback from the presentations.

3.7.2 Content validity

Content validity is a valuation of screening, to check the adequacy of relevant questions covering all aspects being studied, to avoid replication and to ensure the use of relevant questions (Parahoo, 2006). The researcher constructed the questionnaire after an extensive literature review. The researcher used tools that have been used by other researchers in similar studies. Finally, the researcher consulted different experts among them were supervisors, lecturers from the Department of Public Health and fellow students during departmental seminar presentations and environmental health specialists.

3.7.3 Reliability

To ensure reliability of the research instrument, the researcher conducted the study two times with the same respondents, using the same questionnaire, at an interval of one week, so that the results can be compared to assess the stability of the scores.

3.8 METHOD OF DATA COLLECTION

After obtaining permission from the Department of Education and the school principal, the researcher made class to class visits to request learners' consent. The researcher explained to the learners her intentions. The nature and aim of the study were explained in full, including ethical issues. All the respondents were asked to sign a consent / assent form before taking part of the study, to show that they understand the nature, aim and the process of the study. The researcher also asked consent from parents of respondents who were minors, they were asked to sign consent form (assent form) for their minor children for them to participate in the study. The respondents filled in the questionnaire in the presence of the researcher and provided respondents with clarity where they do not understand and ensured that the questionnaires were completed. The questionnaires were completed after school in the selected secondary schools, to avoid disrupting school activities. The questionnaire took 45 minutes to complete.

3.9. DATA ANALYSIS

Data analysis was carried out by the researcher and all data from the questionnaire were entered in the SPSS version 26. Descriptive statistics was used to analyse the data. Results obtained

from data analysis was presented in the form of tables, graphs and charts. The researcher chose this method of data analysis to avoid being biased when analysing the data.

3.10. ETHICAL CONSIDERATIONS

The researcher ensured that she followed the ethical issues, to protect the rights of the respondents. She ensured that the following ethical issues are considered: permission to conduct the study, informed consent, voluntary participation, anonymity, confidentiality.

3.10.1 Permission to Conduct the Study

The proposal was submitted to the University of Venda Higher Degrees Committee for quality check and approval and then to the University of Venda Research Ethics Committee, for ethical clearance. After getting the ethical clearance from the ethics committee, the researcher asked for permission from the Department of Education, circuit manager and the school principals. After obtaining this permission, the researcher asked for parents' permission in a form signing informed consent form (assent form) on behalf of minor respondents. The researcher also asked for the learners' permission to participate in the study.

3.10.2 Informed Consent

Informed consent means informing potential respondents about the procedure of the research that might influence their decision to participate (Monette, Dejong & Sullivan, 2008). Informed consent refers to a written statement which explains aspects to a study to participants and ask for their voluntary agreement to participate before the study begins (Neuman, 2014). The researcher attached the consent form obtained from the University, it explained to the population of interest, where the researcher was from, the title of the study, nature of the study and the purpose of the study, as well as the importance of their participation and what is expected from them. The researcher informed them about their rights as respondents. The researcher gave respondents an informed consent form so that they can sign as a way of agreeing to take part in the study. The researcher informed them that signing the informed consent do not mean they cannot withdraw from the study, and they are welcome to withdraw from the study if they feel uncomfortable. The researcher developed an assent form for respondents who are minors, so that they can sign if they are willing to participate in the study. The researcher also ensured that parents are aware of the research, and they should give consent to the researcher by signing informed consent form (assent form).

3.10.3 Voluntary Participation

According to De Vos, Strydom, Fouche & Delport, (2005) participation in the research study should not be forced it should always be voluntary to participate. The researcher, after explaining to participants about the nature, purpose of the study, gave respondents an opportunity to decide if they would still want to take part in the study or not. The researcher also informed them that if they decided to take part in the study, they could withdraw from the study at any time if they were no longer interested in being part of the study, without any form of victimization.

3.10.4 Anonymity

Anonymity is the ethical principle of not disclosing the personal or identifying particulars of the participants on any research (Terre Blanche, Durkheim & Pater 2006). The researcher, after gathering information from participants when presenting the findings, ensured that the respondents' identities remain anonymous; for example, when presenting the findings, the researcher used "respondent 1" instead of the real name, to ensure that respondents' identities remain unknown.

3.10.5 Confidentiality

Confidentiality is the ethical protection for respondents in the study, by properly handling research data safe, or keeping them secret from the public; not releasing information in a way that permits linking specific individuals to specific responses (Neuman 2014).
To the study, the researcher kept the respondents' information confidential. The researcher did not disclose the respondents' confidential information during peer review or departmental presentation.

3.11. SUMMARY

The research techniques and methods were discussed in this chapter. The chapter outlined the study population, study setting. The study also outlined the sampling procedure that was used, and the data collection instrument used. The researcher also outlined the research ethics and processes observed before, during and after data collection.

CHAPTER 4

ANALYSIS AND PRESENTATION OF RESEARCH FINDINGS

4.1 INTRODUCTION

Chapter four is about the presentation of findings of the study. Responses from study respondents were assembled into frequency tables and converted into percentages and presented in charts, bar graphs and tables. This was done to facilitate easy analysis and understanding of data of the study that sought to analyse the hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo Province.

Data is presented and discussed based on the study specific objectives and results related to specific study objectives are presented in the subsequent sections. Two hundred and fifty (250) questionnaires were distributed to respondents who consented to participate in the study and all the questionnaires were satisfactorily filled in and returned, thus the response rate was 100%.

4.2 DEMOGRAPHIC INFORMATION OF RESPONDENTS

To gather demographic information of study respondents, three questions on issues such as age, gender and grade that the respondent is attending were asked. They are presented separately below.

4.2.1 Respondents demographic information

4.2.1.1 Age of respondents

Out of a total of 250 respondents, 101 (40%) were aged 14 years, 85 (34%) were aged 13 years, 49 (20%) were aged 15 years, 12 (4,8%) were aged 16 years, 2 (0,8%) were aged 17 years and 1 (0,4%) was aged 12 years. These findings are illustrated in figure 4.1.

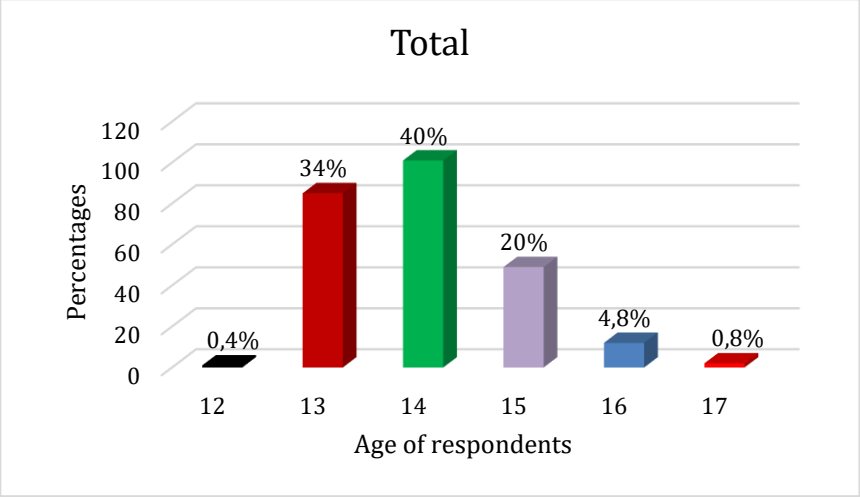

Figure 4.1: Age distribution of respondents (N=250)

4.2.1.2 Gender of respondents

Out of a total of 250 respondents, 134 (54%) were males while 116 (46%) were females. These findings are illustrated in figure 4.2.

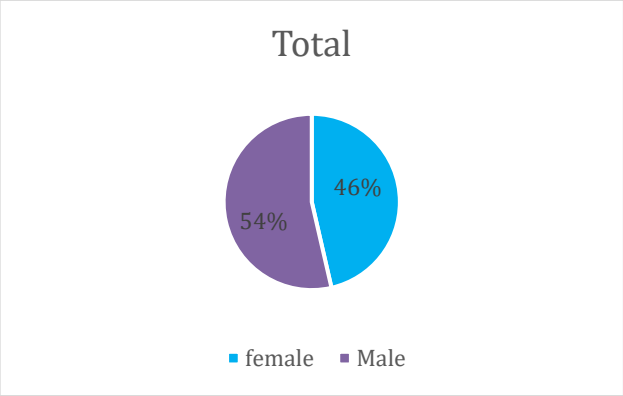

Figure 4.2: Gender distribution of respondents (N=250)

4.2.1.3 Grade of respondents

The study findings show that all 250 (100%) of the study respondents were in grade 8. These findings are illustrated in figure 4.3.

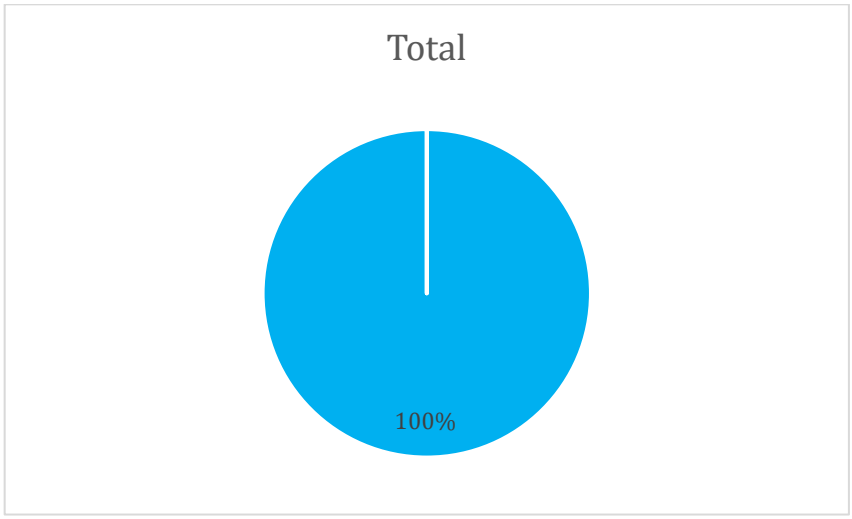

Figure 4.3: Grade distribution of respondents (N=250)

4.3 ASSESSING LEVEL OF KNOWLEDGE OF LEARNERS REGARDING HYGIENE PRACTICES

To gather data on knowledge of learners regarding the hygiene practices, six questions were asked, namely:

1. Do you know that diseases can spread from one person to another?

2. Sharing drinking cups without washing brings health problems

3. Hand washing with or without soap is the same

4. Washing hands after meals is more important than doing it before meals.

5. Proper hand washing should take:

6. Human faeces contain germs that can cause infections.

The results are presented separately below.

4.3.1 Do you know that diseases can spread from one person to another?

Table 4.1 shows that 232 (93%) of the study respondents indicated that they know that disease can spread from one person to another, while 18 (7%) indicated that they do not know that disease can spread from one person to another.

Table 4.1: Respondents' response on whether diseases can spread from one person to another (N=250)

Responses	Frequency	Percentage
Yes	232	93%
No	18	7%
Total	N=250	100%

4.3.2 Sharing drinking cups without washing brings health problems

The study findings revealed that 178 (71%) of the study respondents knew that sharing cups without washing brings health problems, while 72 (29%) replied that they do not know. These findings are illustrated in figure 4.4.

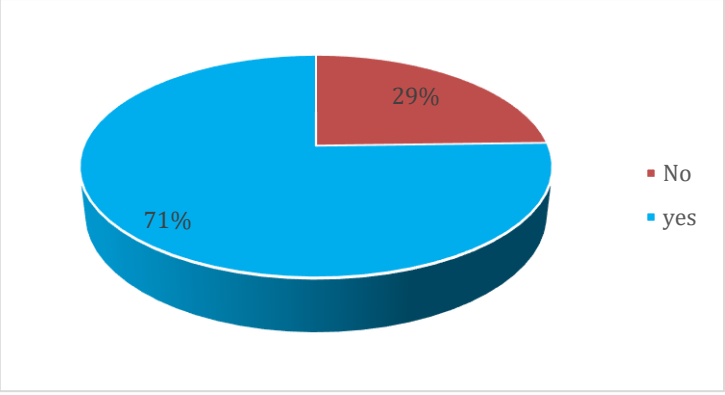

Figure 4.4: Respondents' response on whether sharing cups without washing brings health problems (N=250)

4.3.3 Hand washing with or without soap is the same

The findings show that 213 (85%) of the study respondents did not know whether hand wash with or without a soap is the same and 37 (15%) of the respondents knew that hand washing with or without soap is the same. These findings are illustrated in figure 4.5.

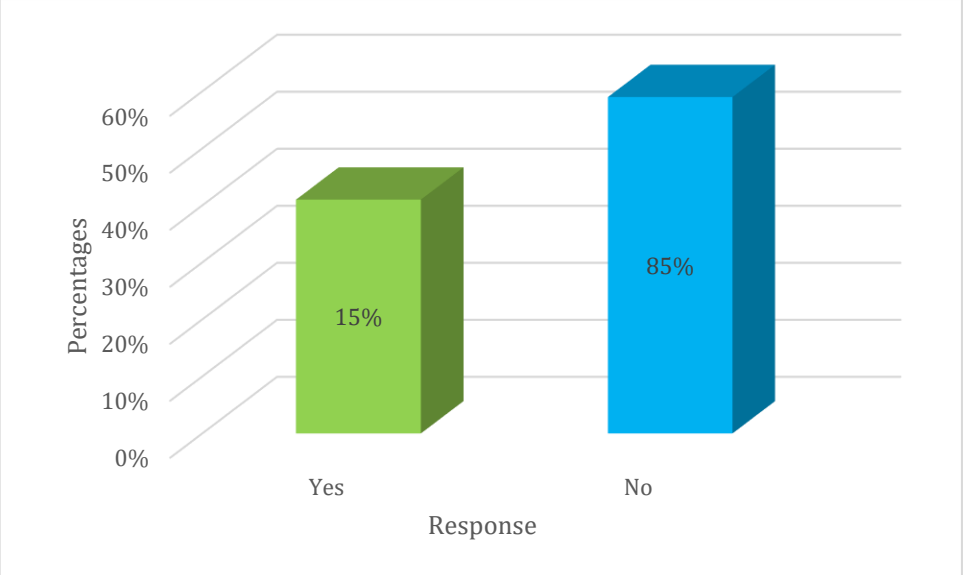

Figure 4.5: Respondents' response on whether hand washing with or without soap is the same (N=250)

4.3.4 Washing hands after meals is more important than doing it before meals.

Study findings revealed that 148 (59%) of the study respondents replied no that it is not important to wash hand after or before the meals, 102 (41%) indicated that they know it is more important to wash hand before meals than after. These findings are illustrated in figure 4.6.

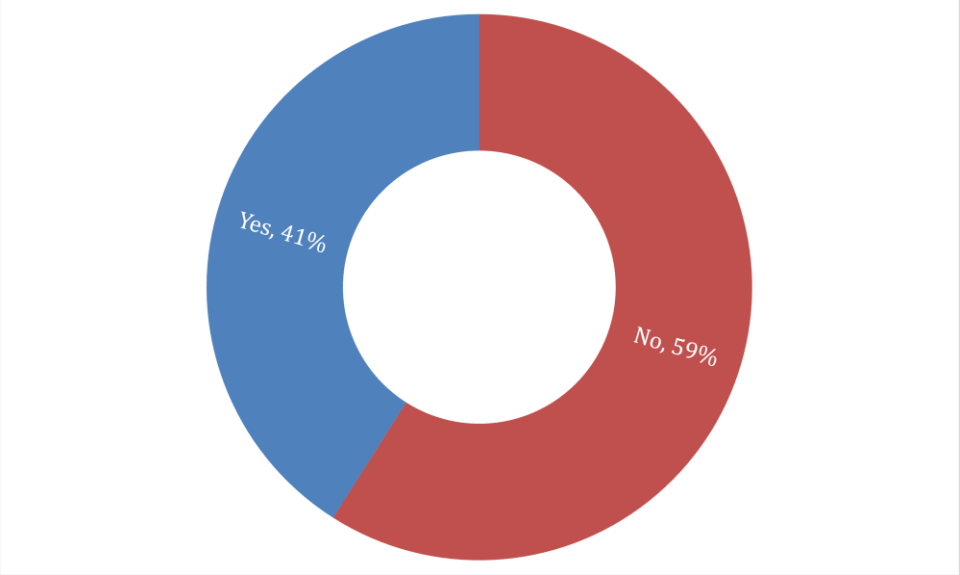

Figure 4.6: Respondents' response on whether washing hands after meals is more important than doing it before meals (N=250)

4.3.5 Proper hand washing should take

The study findings show that 197 (79%) of the respondents indicated that normal hand washing should take about 20 seconds, 36 (15%) replied that normal handwashing should take 2-3 minutes, 15 (6%) said that normal handwashing should take 10 seconds. These findings are illustrated in figure 4.7.

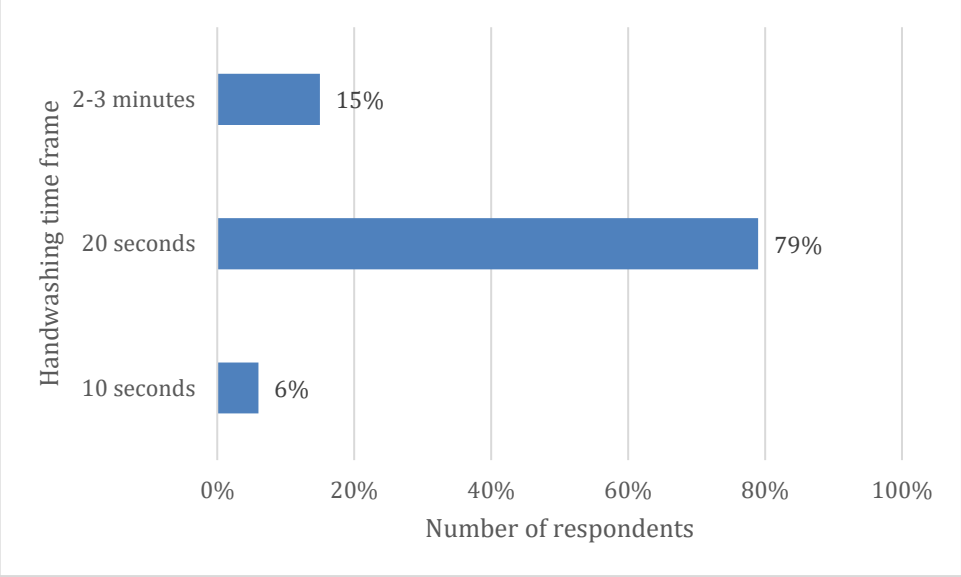

Figure 4.7: Respondents' response on minutes' proper hand washing should take (N=250)

4.3.6 Human faeces contain germs that can cause infections.

Figure 4.8 reveals that 152 (61%) of the study respondents replied that they are aware that human faeces contain germs that can cause infections while 97 (39%) replied that they do not know. These findings are illustrated in figure 4.8.

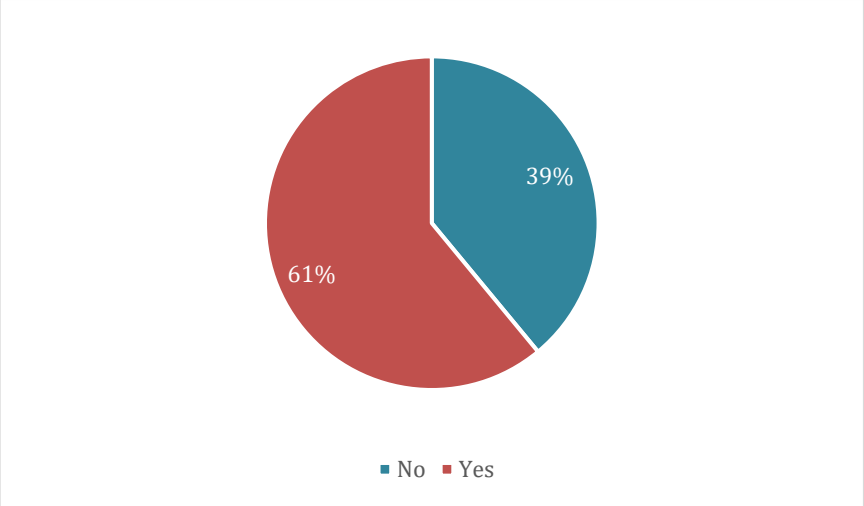

Figure 4.8: Respondents' response on whether human faeces contain germs that can cause infections (N=250)

4.4 DESCRIBING HYGIENE PRACTICES OF LEARNERS

To describe learners' practices regarding hygiene, six questions were asked on whether learners are practising hygiene or not, such as changing of toothbrush, using of someone's towel, washing her with shampoo, hand washing after coughing or sneezing, eating with someone in the same plate and changing of clothes after bathing.

4.4.1 How often do you change your toothbrush?

Findings show that 113 (45%) of the respondents indicated that they change toothbrush once in 3 months, 80 (32%) replied that they change toothbrush once in 6 months, and 56 (23%) said that they change the toothbrush when bristles are worn out. These findings are illustrated in table 4.2.

Responses	Frequency	Percentage
Once in 3 months	113	45%
Once in 6 months	56	23%
When the bristles of the toothbrush are all worn out	80	32%
Total	N=250	100%

Table 4.2: Respondents' response on how often they change toothbrush (N=250)

4.4.2 Do you use someone's towel?

The study results show that 182 (73%) of the respondents never used someone's towel, 53 (21%) replied that they sometimes use someone's' towel, and 14 (6%) said that they always use someone's towel. These findings are illustrated in figure 4.9.

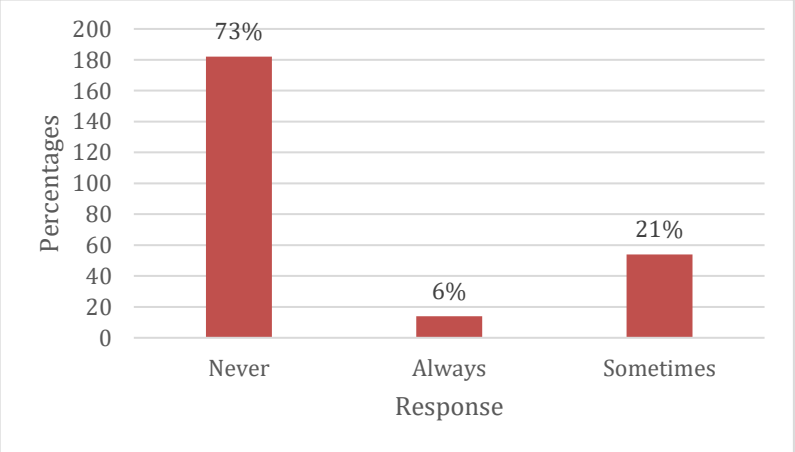

Figure 4.9: Respondents' response on whether they use someone's towel (N=250)

4.4.3 How often do you wash your hair with shampoo?

Findings show that 144 (58%) of the respondents indicated that they never washed their hair with shampoo, 73 (29%) replied that they wash their hair with shampoo once in a week, and 33 (13%) said that they wash their hair with shampoo daily. These findings are illustrated in table 4.3.

Responses	Frequency	Percentage
Daily	33	13%
Never	144	58%
Once a week	73	29%
Total	N=250	100%

Table 4.3: Respondents' response on how often they wash their hair with shampoo (N=250)

4.4.4 Do you wash your hands after coughing or sneezing?

The study findings indicate that 199 (79%) of the respondents responded that they do wash their hands after coughing and sneezing, 32 (13%) replied that they sometimes wash their hands after coughing and sneezing, and 19 (8%) said that they do not wash their hands after coughing and sneezing. These findings are illustrated in figure 4.10.

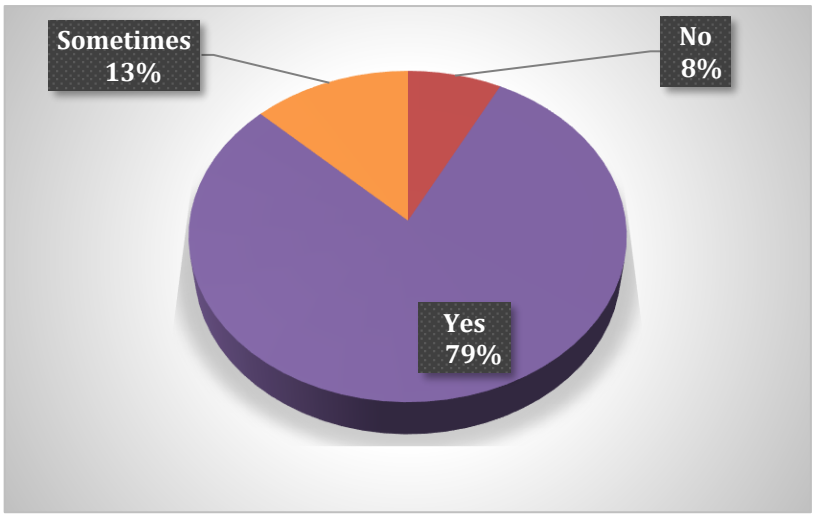

Figure 4.10: Respondents' response on whether they wash their hands after coughing and sneezing (N=250)

4.4.5 Do you eat with someone in the same plate?

Findings revealed that 178 (71%) of the respondents said that they do not eat from the same plate with someone, 42 (17%) replied that they sometimes eat from the same plate with someone, and 30 (12%) indicated that they do eat from the same plate with someone. These findings are illustrated in figure 4.11.

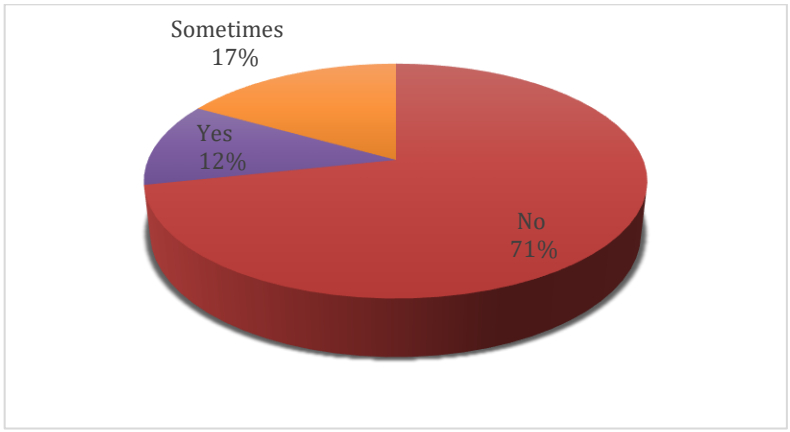

Figure 4.11: Respondents' response on whether they eat with someone in the same plate (N=250)

4.4.6 Do you change your clothes after bathing?

Findings revealed that 209 (84%) of the respondents pointed that they always change their clothes after bathing, 38 (15%) replied that they sometimes change their clothes after bathing, and 3 (1%) indicated that they do change their clothes after bathing. These findings are illustrated in figure 4.12.

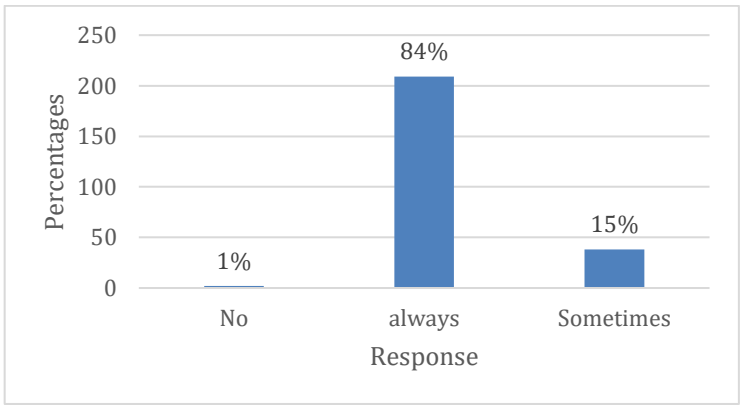

Figure 4.12: **Respondents' response whether they change clothes after bathing (N=250)**

4.5 ANALYSING HYGIENE PRACTICES OF LEARNERS

To analyse hygiene practices of learners, six questions were asked on issues as washing hands before and after meal, washing teeth, washing hands after defecation, trimming of nails and washing feet every day. These issues are presented separately below.

4.5.1 Do you usually wash your hands before meals?

Figure 4.13 below reveals that 208 (83%) of the study respondents replied that they always wash their hands before meal while 42 (17%) replied that they sometimes wash their hands before meal.

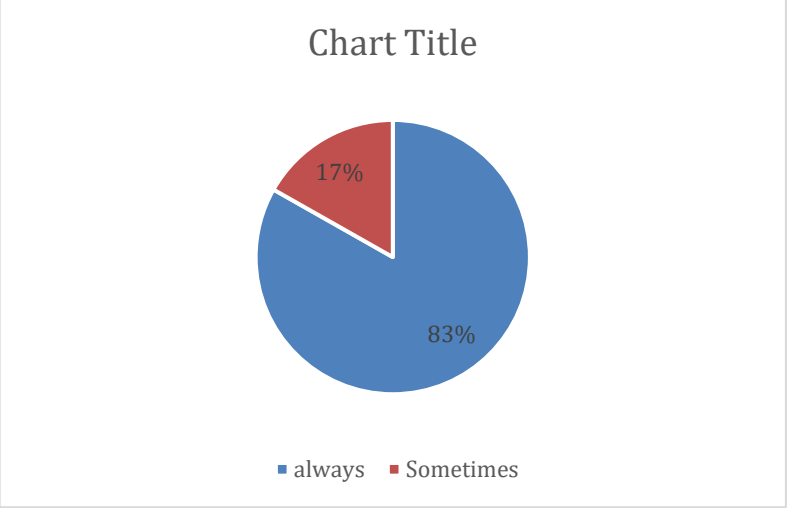

Figure 4.13: Respondents' response whether they wash hands before meal (N=250)

4.5.2 Do you usually wash your hands after meals?

The study results revealed that 187 (75%) of the respondents pointed that they always wash hands after meal, 53 (21%) replied that they sometimes wash their hands after meal, and 9 (4%) indicated that they never wash their hands after meal. These findings are illustrated in table 4.4.

Responses	Frequency	Percentage
Never	9	4%
Always	187	75%
Sometimes	53	21%
Total	N=250	100%

Table 4.4: Respondents' response whether they wash hands after meal (N=250)

4.5.3 Do you regularly wash your teeth?

Figure 4.14 below shows that 151 (60%) of the study respondents replied that they wash teeth twice a day, 93 (37%) indicated that wash teeth once a day while 6 (3%) replied that they never wash their teeth.

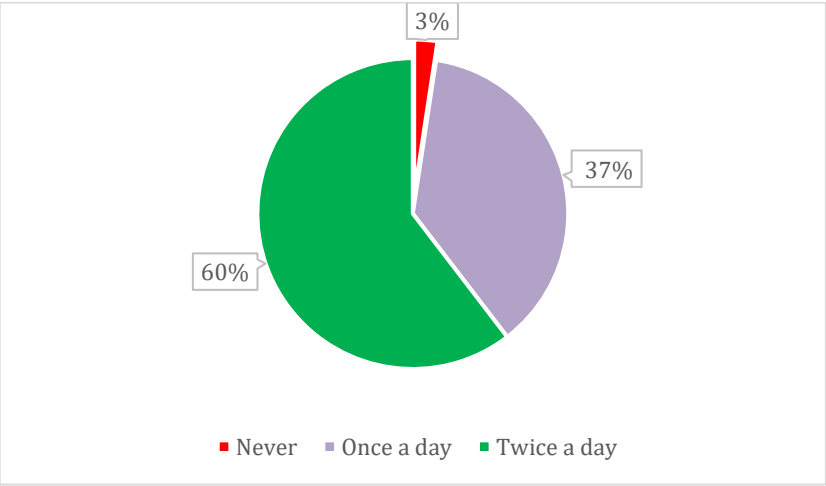

Figure 4.14: Respondents' response on whether they regularly wash their teeth (N=250)

4.5.4 Do you always wash your hands after defecation?

The study found that 188 (75%) of the respondents pointed that they do wash hands after defecation, 44 (18%) replied that they sometimes wash hands after defecation, and 18 (7%) indicated that they do not wash hands after defecation. These findings are illustrated in figure 4.15.

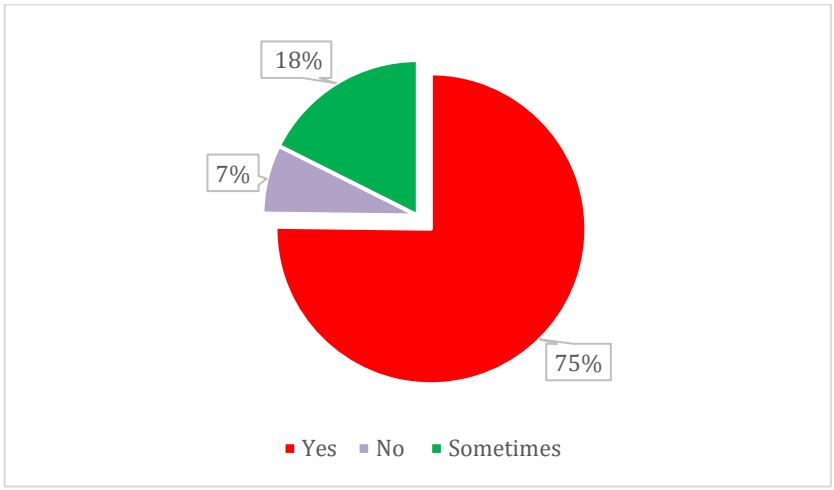

Figure 4.15: Respondents' response on whether they wash hands after defecation (N=250)

4.5.5 Do you often trim your nails?

Figure 4.16 below shows that 202 (81%) of the study respondents replied that they do trim their nails while 48 (19%) replied that they do not trim their nails.

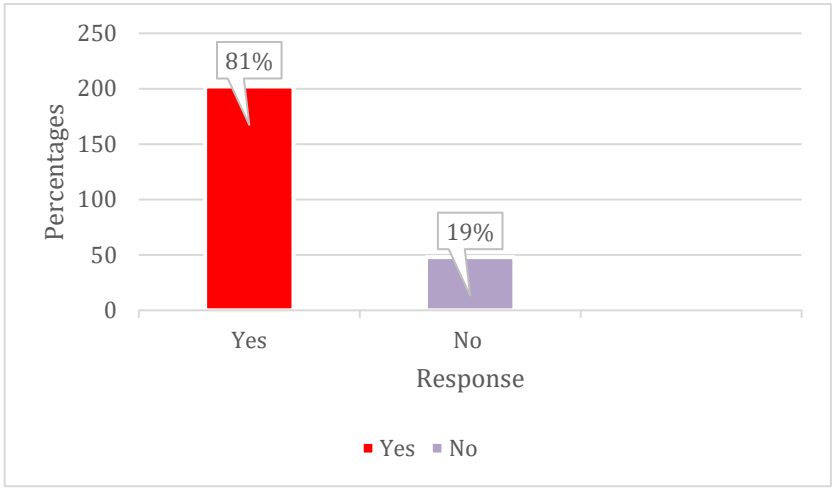

Figure 4.16: Respondents' response on whether they trim their nails (N=250)

4.5.6 Do you wash your feet every day?

The study results revealed that 184 (74%) of the respondents pointed that they wash their feet every day, and 66 (26%) indicated that they do not wash their feet every day. These findings are illustrated in table 4.5.

Responses	Frequency	Percentage
Yes	184	74%
No	66	26%
Total	N=250	100%

Table 4.5: Respondents' response on whether they wash their feet every day (N=250)

4.6 DISCUSSION OF THE RESULTS

4.6.1 DEMOGRAPHIC INFORMATION

The study findings revealed that 40% of the respondents were aged 14 years. The findings further showed that more of the respondents were females occupying 54% of the sample size. It was discovered in the study that all the respondents were doing grade 8 in secondary school.

4.6.2 ASSESSING LEVEL OF KNOWLEDGE OF LEARNERS REGARDING HYGIENE PRACTICES

The study findings revealed that the majority 93% of the study respondents knew that disease could spread from one person to the other. These findings are supported by the study conducted by Parikh, Shah, Pathak, Vadnerkar, Uttekar, Thacker & Nimbalkar (2020) who found that majority of the respondents (83%) knew that corona virus can spread from one person to another, and they were afraid that it would infect them.

The study also investigated on whether learners know that sharing cups without washing brings health problems where it found that Majority (71%) of the respondents knew that sharing cups without washing brings health problems. These findings conquer with the findings of the study by Hyttel, Thomsen, Luff, Storrusten, Nyakato & Tellier (2017) which revealed that most of their participants had knowledge that sharing of alcohol drinks puts them at risk of spreading disease to one another.

The study also found that majority (85%) of the respondents did not know that washing hands with or without soap is the same. Moreover, the study also discovered that most (50%) of the respondents disagreed that washing hands after meal is very important than before. These findings differ with the study conducted by Tomaszewska, Trafialek, Suebpongsang & Kolanowski, (2018) which found that Majority of their study participants considered hand washing after handling food as more important compared to washing before. On the other hand, the study found that few (36%) of the respondents considers 2-3 minutes as time for normal proper hand washing. Furthermore, the study revealed that most (61%) of the study respondents knew that human faeces contain germs that can cause infection. These findings concur with the study by Shrestha, Manandhar & Joshi (2018) which revealed that majority of high school learners (94,4%) practised handwashing after going to toilet as they knew that without washing puts them at risk of contaminating germs and diseases.

4.6.3 DESCRIBING HYGIENE PRACTICES OF LEARNERS

The study findings revealed that most (45%) of the respondents change toothbrush once in 3 months, while few (32%) change toothbrush once in 6 months. The study by Pesevska, Ivanovski, Mindova, Kaftandzieva, Ristoska, Stefanovska & Koneski (2016) also yielded similar results where it found that most (45%) of the study respondents replace their toothbrush after 2-3 months.

The study results revealed that majority of (73%) of the respondents do not share bathing towel with someone, while few (21%) sometimes use someone's bathing towel. These findings are similar with the findings of the study by Raczniak, Gaines, Bulkow, Kinzer, Hennessy, Klejka & Bruce (2016) where they revealed that 14% of the respondents shared their towels with others.

The study findings revealed that most (58%) of the respondents never washed their hair with shampoo, while few (29%) wash their hair with shampoo once in a week. These findings concur with Palupi, Pristya & Novirsa (2020) who also found that majority (88.2%) of woman wash their hair with shampoo. Furthermore, the study also found that majority (79%) of the respondents wash their hands after coughing and sneezing. These findings are similar with results of the study by Alhazmi, Alshammari, Alenazi, Shaik, AlZaid, Almahmoud & Alshammari (2019) which found that majority (81.9%) washed their hands if they covered their noses and mouths when they sneezed.

The study findings revealed that majority (71%) of the respondents do not eat from the same plate with someone. These findings are contrary to the findings of Nakakuwa, Mitonga, de Villiers & Iipinge (2017) who found that majority of the respondents (71%) were willing to share utensils or eat with someone.

The study findings revealed that majority (84%) of the respondents always change their clothes after bathing, while very few (15%) replied that they sometimes change their clothes after bathing. The study by Punkhun & Norkaew (2020) also found that most of the respondents always changed their clothes

4.6.4 ANALYSING HYGIENE PRACTICES OF LEARNERS

The study findings revealed that majority (83%) of the study respondents always wash their hands before meal while very few (17%) sometimes wash their hands before meal. These findings concur with the study conducted by Gawai, Taware, Chatterjee & Thakur (2016) about food practices where it also found majority of the consumers (95%) regarded hand washing and drying before handling food as more important and they practise it on a daily basis.

The study also revealed that majority (75%) of the respondents always wash hands after meal, and most of the respondents (21%) sometimes wash their hands after meal. These findings relate to the study by Guzek, Skolmowska & Głąbska (2020) which found that Majority of study respondents (82,5%) declared that they wash their hands with soap after handling food.

The study also investigated on how often learners wash their teeth in a day and it found that most of the respondents (60%) wash teeth twice a day, while few (37%) wash teeth once a day. These findings concur with the findings of the study conducted by Siddiqui, Shaikh, Alam, Aljanakh, Al Shammari & Ali Jarallah (2017) where they found that most of the study respondents (52%) brush their teeth twice in a day while very few (13%) brush their teeth once in a day.

The study also found that majority (75%) of the respondents wash hands after defecation, while few (18%) sometimes wash hands after defecation, and very few (7%) do not wash hands after defecation all. Relatively, the findings go hand in hand with the findings of the study conducted by Wada & Oloruntoba (2021) where they also revealed that Majority of study respondents (83%) possess a good knowledge of the importance of hand washing with soap after using a toilet.

The study also investigated on whether learners trim their nails and it revealed that majority (81%) of the study respondents do trim their nails. Contrary, these results differ with the study by Uddin, Haque, Arafat, Roy, Khan & Islam (2015) which revealed that majority of the respondents (66.32%) do not cut their nail regularly.

The study results revealed that majority (74%) of the respondents wash their feet every day, and most (26%) do not wash their feet every day. Similarly, Magbanua & Lim-Alba (2017) also found that majority (97%) of the study respondents wash their feet daily.

4.7 SUMMARY

This chapter presented and analysed data which were collected from secondary school learners in the Makhado Municipality in Limpopo Province of South Africa. The level of knowledge of learners regarding hygiene practices were presented. An association between hygiene practices and demographic information of secondary school learners was drawn.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter 4 presented, discussed and analysed the findings of the study using figures and tables. In this chapter, the researcher will discuss the findings; provide a summary of the findings, the conclusion and the recommendations of the study which sought to analyse of hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo Province.

5.2 RESEARCH DESIGNS AND METHODS

A quantitative approach and descriptive design were adopted in this study. A quantitative approach was used because it enabled the researcher to quantify the knowledge regarding hygiene practices. The population consisted of male and female high school learners from the Makhado Municipality and the accessible population were male high school learners in grade 8 at Nzhelele area. A non-probability sampling technique was employed to select the circuit and school, while total population sampling was used. A structured questionnaire was used to collect data. Data was analysed using the Statistical Package for Social Sciences (SPSS), version 26. The total number of respondents was 250.

5.3 SUMMARY

The findings from this study are discussed according to the objectives of the study as follows. The study objectives were to:

- Assess the learners' level of knowledge regarding hygiene in selected Makhado Municipality secondary schools in Limpopo Province.
- Describe hygiene practices of learners in selected Makhado Municipality secondary schools in Limpopo Province.
- Analyse the hygiene practices of learners in selected Makhado Municipality secondary schools in Limpopo Province.

5.3.1 Assess the learners' level of knowledge regarding hygiene.

The study discovered that majority of the respondents knew that disease could spread from a person to person (93%), very few respondents did not know that disease can spread from a person to person (7%). Furthermore, the study also found that majority of the respondents knew that sharing cups without washing brings health problems (71%), few did not know (29%). Hand

washing with or without soap is the same, majority of the respondents did not know whether hand washing with or without soap is the same (85%) and least knew that hand washing with or without soap is the same (15%). In relation to washing hands after meals is more important than doing it before, most of the respondents believed it is more important washing hands after meal (59%) and most believed that it is more important washing hands before meal than after (41%).

Moreover, about timeframe a proper hand washing should take, majority of the respondents regarded 20 seconds as proper hand washing (79%), very few regarded 2-3 minutes as proper hand washing (15%) and least of the respondents knew that human faeces contain germs that can cause infections (61%), few did not know (39%).

5.3.2 Describe hygiene practices of learners

The study discovered that most of the study respondents change toothbrush once in 3 months (45%), few of the respondents change their toothbrush once in 6 months and very few only change toothbrushes when bristles are worn out (23%). moreover, in relation to using someone's bathing towel, majority of the respondents never use someone's bathing towel (73%). It was also discovered that most of the respondents never washed their hair with shampoo (58%) and few of the respondents washed their hair with shampoo once in a week (29%).

Furthermore, regarding washing hands after coughing and sneezing, majority of the respondents wash their hands after coughing and sneezing (79%). The study also discovered that majority of the respondents do not eat from the same plate someone (71%) and least of the respondents sometimes eat from the same plate with someone (17%). Changing clothes after bathing, majority of the respondents change their clothes after bathing (84%) and least of the respondents sometimes change their clothes after bathing (15%).

5.3.3 Analyse the hygiene practices of learners

The study discovered that majority of the respondents always wash their hands before meal (83%). Washing hands after the meal, majority of the respondents wash their hands after having a meal (75%) and few of the respondents sometimes wash their hands after having a meal (21%).

Furthermore, in relation to washing teeth, most of the respondents wash their teeth twice a day (60%) and few of the respondents wash their teeth once in a day (37%). The study also discovered that majority of the respondents wash their hands after defecation (75%) and few of the respondents sometimes wash their hands after defecation.

the study also discovered that majority of the respondents do trim their nails (81%). Regarding washing teeth every day, majority of the respondents wash their teeth everyday (74%) and few of the respondents do not wash their teeth at all (26%).

5.4 LIMITATIONS OF THE STUDY

The following limitations were identified during the study:

- The study was conducted in the Makhado municipality; therefore, the findings cannot be generalised to all high school learners from other Municipalities.

- The study used structured questionnaires which were limiting the respondents who wished to elaborate more might have limited respondents' personal views.

- Also, the learners from other grades were not included in the study, this may have been useful in terms of comparative data across grades.

5.5 CONCLUSION

To address the research objectives of analyse hygiene practices among learners, the study concludes that high school learners have high knowledge regarding hygiene practices. The study also concludes that learners had higher knowledge regarding the spread of diseases.

5.6 RECOMMENDATIONS

The following recommendations were made based on the study findings in order to increase knowledge of high school learners' hygiene practices.

5.6.1 Practice

- It is recommended that professional nurses and social workers should conduct awareness campaigns regularly in both clinics and schools to reinforce knowledge among young people about hygiene practices.
- Government should impose harsh laws against people found littering which will jeopardise public's health.

5.6.2 Body of knowledge

- Based on the findings of this study, the researcher recommends a study to develop a model to reinforce knowledge regarding hygiene practices among youths.

- The researcher further recommends that a study be conducted to evaluate the effectiveness of hygiene awareness programmes that are already in place.

5.7 CONCLUSION OF THE STUDY

This study was divided into 5 chapters. In chapter 1, Orientation to the study, the following were presented: Introduction and background of the study, statement of the problem, significance of the study, aim of the study, research question, objectives of the study, brief description of methodology, definition of concepts. Chapter 2, Literature review.

Chapter 3: Research designs and methodology, presented designs of the study, setting in which the study was conducted, population sample and sampling procedures that were used to select the participants, method which was used to collect data, measures which were adopted to ensure reliability and validity of the study and ethical principles that were adhered to during the study.

Chapter 4 presented the findings, demographic information of participants, as well as the discussion and analysis of the study findings.

Chapter 5 presented the summary and interpretation of the study based on the aim and objectives as set in chapter 1, and they were all achieved, limitations, conclusion based on the findings as well as the recommendations for practice and the body of knowledge.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

INSTRUCTIONS

Fill in the space provided to you

Use black or blue pen, do not use a pencil

Use visible handwriting

Do not cancel answers

Circle the correction answer where applicable

Section A: DEMOGRAPHIC INFORMATION

Age:

Grade:

Gender:

Section B: ASSESS LEVEL OF KNOWLEDGE OF LEARNERS REGARDING HYGIENE PRACTICES

Item	Answer
1 Do you know that diseases can spread from one person to another?	Yes No I don't know
2 Sharing drinking cups without washing brings health problems	Yes No I don't know
3 Hand washing with or without soap is the same	Yes No I don't know

4 Washing hands after meals is more important than doing it before meals	Yes No I don't know
5 Proper hand washing should take:	2-3 minutes 20 seconds
	c) 10 seconds
6 Human faeces contain germs that can cause infections	Yes No I don't know

Section C: DECSRIBE HYGIENE PRACTICES OF LEARNERS

Item	Answer
1. How often do you change your toothbrush?	Once in 3 months Once in 6 months When the bristles of the toothbrush are all worn out
2. Do you use someone's towel?	always Sometimes Never
3. How often do you wash your hair with shampoo	Daily once a week never
4. Do you wash your hands after coughing or sneezing?	Yes No Sometimes
5. Do you eat with someone in the same plate?	Yes No Sometimes

6. Do you change your cloths after bathing?	Always Sometimes

Section D: ANALYZE HYGIENE PRACTICES OF LEARNERS

Item	Answer
1. Do you usually wash your hands before meals?	Always Sometimes Never
2. Do you usually wash your hands after meals?	Always Sometimes Never
3. Do you regularly wash your teeth?	Once a day Twice a day Never
4. Do you always wash your hands after defecation?	Yes No Sometimes
5. Do you often trim your nails?	Yes No
6. Do you wash your feet every day?	Yes No Sometimes

RESEARCH ETHICS COMMITTEE

Appendix B

UNIVEN Informed Consent

LETTER OF INFORMATION

Title of the Research Study : Analysis of hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo Province.

Principal Investigator/s/ researcher : *Mamafha* NC. Social Work

Co-Investigator/s/supervisor/s : (*Prof. L.H Nemathaga, DR A.G Mudau)*

Brief Introduction and Purpose of the Study: I am Ndivhuwo Cynthia Mamafha, a Master of Public Health (MPH) student in the School of Health Sciences at the University of Venda. As part of my studies, I have to conduct a research project; I am researching on the analysis of hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo Province. The aim of the study is to analyse hygiene practices among learners in selected Makhado Municipality Secondary Schools in Limpopo Province.

Outline of the Procedures: The study will use quantitative research method; the study will be conducted in schools. The researcher will use purposive sampling, participants will fill in the questionnaire, and respondents will require approximately 45 minutes to complete the questionnaire.

Risks or Discomforts to the Participant: There are no risks involved in participating in the proposed study.

Benefits: There are no direct benefits (money, presents) for participating in this study. However, the findings of the study may benefit the Department of Health financially, as the cost of treating preventable diseases will be reduced. They may also benefit the Department of Education as the number of absenteeism due to illness will decrease and the pass rate will be high. They may also benefit the community, as the number of deaths caused by poor hygiene practices will decline.

Financially, they may also benefit the families if they do not spend money on hospital bills.

Reason/s why the Participant May Be Withdrawn from the Study: Participation in this study is voluntarily. Respondents will be informed of the right to withdraw from the study without penalty for any reason.

Remuneration: There will be no remuneration for participating in the study.

Costs of the Study: Respondents will not pay to participate in this study.

Confidentiality: Respondents are not expected to put their real identity, such as names or ID no on the questionnaire, and the information will be used for study purposes only. Therefore, the findings of the study will not be linked to the respondent.

Research-related Injury: There is no compensation for injury.

Persons to Contact in the Event of Any Problems or Queries:

(Supervisor and details) Please contact the researcher Ndivhuwo Cynthia Mamafha (079 117 3166), my supervisor Prof L.H Nemathaga (015 962 9116), my co-supervisor DR A.G Mudau (015 962 8828) or the University Research Ethics Committee Secretariat on 015 962 9058.

Complaints can be directed to the Director: Research and Innovation, Prof GE Ekosse on 015 962 8313 or Georges Ivo.Ekosse@univen.ac.za

General:

Potential participants must be assured that participation is voluntary and the approximate number of participants to be included should be disclosed. A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population

CONSENT

Statement of Agreement to Participate in the Research Study:

I hereby confirm that I have been informed by the researcher, (*Ndivhuwo Cynthia Mamafha*), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: SHS/20/PH/24/1301.

I have also received, read and understood the above written information

(*Participant Letter ofInformation*) regarding the study.

I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.

In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.

I may, at any stage, without prejudice, withdraw my consent and participation in the study.

I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant Date Time Signature

I, …….. …… …… ……..

(*Name of researcher*) herewith confirm that the above participant has been fully

Informed about the nature, conduct and risks of the above study.

Full Name of Researcher

Mamafha Ndivhuwo Cynthia Date: August 2021

Signature: 

Full Name of Witness (If applicable)

…….. Date …….

Signature…….

Full Name of Legal Guardian (If applicable)

…… Date……

Signature…….

Please note the following:

Research details must be provided in a clear, simple and culturally appropriate manner and prospective participants should be helped to arrive at an informed decision by use of appropriate language (grade 10 level- use Flesch Reading Ease Scores on Microsoft Word), selecting of a nonthreatening environment for interaction and the availability of peer counselling (Department of Health, 2004)

If the potential participant is unable to read/illiterate, then a right thumb print is required and an impartial witness, who is literate and knows the participant e.g. parent, sibling, friend, pastor, etc. should verify in writing, duly signed that informed verbal consent was obtained (Department of Health, 2004).

If anyone makes a mistake completing this document e.g. a wrong date or spelling mistake, a new document has to be completed. The incomplete original document has to be kept in the participant's file and not thrown away, and copies thereof must be issued to the participant.

References:

Department of Health: 2004. *Ethics in Health Research: Principles, Structures and Processes*http://www.doh.gov.za/docs/factsheets/guidelines/ethnics/

Department of Health. 2006. *South African Good Clinical Practice Guidelines*. 2nd Ed. Available at:

http://www.nhrec.org.za/?page_id=14

APPENDIX C: ASSENT FORM

ASSENT TO PARTICIPATE IN A RESEARCH PROJECT FOR ADOLESCENTS 13-17 YEARS OLD

UNIVERSITY OF VENDA

TITLE OF THE RESEARCH STUDY: Analysis of hygiene practices among learners in selected Makhado Municipality secondary schools in Limpopo Province.

What is the purpose of the study?

The aim of the study is to analyse hygiene practices of learners in selected Makhado Secondary Schools in Limpopo province.

How many learners will take part in this study?

All learners in grade 8 from Nzhelele Central circuit will be asked to take part of the study.

What will happen if you decide you might want to take part on this research study?

First, your parents will be asked to give permission for you to be part of the study by signing informed consent form (assent form) on your behalf. If your parents don't agree, you cannot participate in the study.

If your parents do agree, and you also agree, here's what will happen next:

During the study:

Will any parts of this study hurt or have other risks?

There are no risks for participating in this proposed study

What are the benefits during and after the study?

There are no direct benefits (money, presents) for participating in this study. However, the findings of the study may benefit the Department of Health financially, as the cost of treating pr0eventable diseases will be reduced. It may also benefit the Department of Education, as it will reduce the number of absenteeism and the pass rate will be high. It may also benefit the community, as it will reduce the number of deaths caused by poor hygiene practices. It may a0lso benefit the families by reducing the money spent on hospital bills.

Confidentiality

Respondents are not expected to include their real identity such as names or ID no in the 0questionnaire and the information will be used for study purposes only. Therefore, findings of the study will not be linked to the respondent.

What if I no longer want to be part of the study?

Participation in this study is voluntarily. You have the right to withdraw, and there will be no penalty for withdrawing from participating.

 If you don't want to be in this study, do not sign this form, inform the researcher

If you want to be in this study, please sign your name below.

If you sign here, it means you agree to participate in this study.

The researcher will give you a copy of this form to keep.

CONSENT

I,_____ hereby confirm that I have been informed by the researcher about the nature, purpose, benefits, risks of this study. I fully agree to take part of the study and my participation is voluntarily, if I want to withdraw from the study I can withdraw at any time without any penalties by the researcher.

_____ _____ _____

Learner's signature Date Age

_____ _____

Parent/ legal guardian signature Date

Mamafha Ndivhuwo Cynthia

Name of Person Conducting Assent Discussion

_____ August 2021

Signature of Person Conducting Assent Discussion (*print*) Date

APPENDIX D

UNIVERSITY OF VENDA

OFFICE OF THE DEPUTY VICE-CHANCELLOR: ACADEMIC

TO : MR/MS N.C MAMAFHA

SCHOOL OF HEALTH SCIENCES

FROM: PROF. J.E CRAFFORD

DEPUTY VICE-CHANCELLOR: ACADEMIC

DATE : 22 FEBRUARY 2021

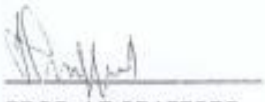
DECISIONS TAKEN BY UHDC OF 22nd FEBRUARY 2021

Application for approval of Masters Proposal Report in Health Sciences: **N.C Mamafha (11602203)**

Topic: "Analysis of hygiene practices among learners in Selected Makhado Municipality secondary schools in Limpopo Province."

Supervisor	UNIVEN	Prof. L.H Nemathaga
Co-supervisor	UNIVEN	Dr. A.G Mudau

UHDC approved Masters proposal



PROF. J.E CRAFFORD
DEPUTY VICE-CHANCELLOR: ACADEMIC

University of Venda
Creating Future Leaders

APPENDIX E

ETHICS APPROVAL CERTIFICATE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Ms NC Mamafha

STUDENT NO:
11602203

PROJECT TITLE: **Analysis of hygiene practices among learners in Selected Makhado Municipality secondary schools in Limpopo Province.**

ETHICAL CLEARENCE NO: **SHS/20/PH/24/1301**

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof L Nemathaga	University of Venda	Supervisor
Mrs AG Mudau	University of Venda	Co- Supervisor
Ms. NC Mamafha	University of Venda	Investigator – Student

Type: **Masters Research**
Risk: **Risk to humans, animals, environment, or a sensitive research area**
Approval Period: **January 2021 – January 2023**

The Human and Clinical Trails Research Ethics Committee (HCTREC) hereby approves your project as indicated above.

General Conditions
While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following.

- The project leader (principal investigator) must report in the prescribed format to the REC:
  - Annually (or as otherwise requested) on the progress of the project, and upon completion of the project
  - Within 48hrs in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
  - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project,. the project leader must apply for approval of these changes at the REC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date; a new application must be made to the REC and new approval received before or on the expiry date.
- In the interest of ethical responsibility, the REC retains the right to:
  - Request access to any information or data at any time during the course or after completion of the project,
  - To ask further questions; Seek additional information; Require further modification or monitor the conduct of your research or the informed consent process.
  - withdraw or postpone approval if:
  - Any unethical principles or practices of the project are revealed or suspected,
  - It becomes apparent that any relevant information was withheld from the REC or that information has been false or misrepresented.
  - The required annual report and reporting of adverse events was not done timely and accurately.
  - New institutional rules, national legislation or international conventions deem it necessary

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE
Date Considered: October 2020

Name of the HCTREC Chairperson of the Committee: Prof MS Maputle

Signature:

UNIVERSITY OF VENDA
OFFICE OF THE DIRECTOR
RESEARCH AND INNOVATION
2021 -01- 18
Private Bag X5050
Thohoyandou 0950

University of Venda
PRIVATE BAG X5050, THOHOYANDOU, 0950, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE (015) 962 [illegible] FAX (015) 962 [illegible]
"A quality driven financially sustainable, rural-based Comprehensive University"

APPENDIX F

CONFIDENTIAL

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE PREMIER

TO: DR MC MAKOLA

FROM: DR T MABILA

CHAIRPERSON: LIMPOPO PROVINCIAL RESEARCH COMMITTEE (LPRC)

DATE: 08th JULY 2021

SUBJECT: ANALYSIS OF HYGIENE PRACTICES AMONG LEARNERS IN SELECTED MAKHADO MUNICIPALITY SECONDARY IN LIMPOPO PROVINCE

RESEARCHER: MAMAFHA NC

Dear Colleague

The above researcher's research proposal served at the Limpopo Provincial Research Committee (LPRC). The committee is satisfied with the methodological soundness of the proposed study.

Decision: The research proposal is granted full research approval.

Regards

Acting Chairperson: Dr T Mabila

Secretariat: Ms J Mokobi

Date: 12/07/2021

APPENDIX G

CONFIDENTIAL

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE PREMIER

Office of the Premier

Research and Development Directorate

Private Bag X9483, Polokwane, 0700, South Africa

Tel: (015) 230 9910, Email: mokobij@premier.limpopo.gov.za

LIMPOPO PROVINCIAL RESEARCH ETHICS

COMMITTEE CLEARANCE CERTIFICATE

Meeting: **08th July 2021**

Project Number: LPREC/57/2021: PG

Subject: Analysis of Hygiene Practices Among Learners in Selected Makhado Municipality Secondary in Limpopo Province

Researcher: Mamafha NC

Dr Thembinkosi Mabila

Chairperson: Limpopo Provincial Research Ethics Committee

The Limpopo Provincial Research Ethics Committee (LPREC) is registered with National Health Research Council (NHREC) Registration Number **REC-111513-038.**

Note:

i. **This study is categorized as a Low Risk Level in accordance with risk level descriptors as enshrined in LPREC Standard Operating Procedures (SOPs)**

ii. **Should there be any amendment to the approved research proposal; the researcher(s) must re-submit the proposal to the ethics committee for review prior data collection.**

iii. **The researcher(s) must provide annual reporting to the committee as well as the relevant department and also provide the department with the final report/thesis.**

iv. **The ethical clearance certificate is valid for 12 months. Should the need to extend the period for data collection arise then the researcher should renew the certificate through LPREC secretariat. PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRIES.**

APPENDIX H

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

CONFIDENTIAL

Ref: 2/2/2 Enq: Makola MC Tel No: 015 290 9448 E-mail:MakolaMC@edu.limpopo.gov.za

Mamafha NC
P O Box 324
Nzhelele
0870

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

1. The above bears reference.

2. The Department wishes to inform you that your request to conduct research has been approved. Topic of the research proposal: **"ANALYSIS OF HYGIENE PRACTICES AMONG LEARNERS IN SELECTED MAKHADO MUNICIPALITY SECONDARY IN LIMPOPO PROVINCE "**

3. The following conditions should be considered:

3.1 The research should not have any financial implications for Limpopo Department of Education.

3.2 Arrangements should be made with the Circuit Office and the School concerned.

3.3 The conduct of research should not in anyhow disrupt the academic programs at the schools.

3.4 The research should not be conducted during the time of Examinations especially the fourth term.

3.5 During the study, applicable research ethics should be adhered to; in particular the principle of voluntary participation (the people involved should be respected).

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: MAMAFHA NC

Cnr. 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700, Private Bag X9489, POLOKWANE, 0700
Tel: 015 290 7600, Fax: 015 297 6920/4220/4494

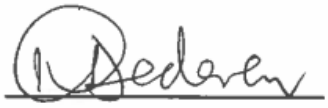
The heartland of southern Africa - development is about people!

3.6 Upon completion of research study, the researcher shall share the final product of the research with the Department.

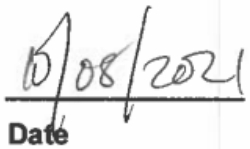
4 Furthermore, you are expected to produce this letter at Schools/ Offices where you intend conducting your research as an evidence that you are permitted to conduct the research.

5 The department appreciates the contribution that you wish to make and wishes you success in your investigation.

Best wishes.



Dederen KO
Head of Department



Date

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: MAMAFHA NC

APPENDIX I

Editorial letter

This serves to confirm that I, Dr T.E. Sikitime, attached to University of Venda, Department of English, Media Studies and Linguistics have proofread a dissertation titled: ***ANALYSIS OF HYGIENE PRACTICES AMONG LEARNERS IN SELECTED MAKHADO MUNICIPALITY SECONDARY SCHOOLS IN LIMPOPO PROVINCE***

Editorial work focused mainly on technical precision and common errors relating to syntax, diction, word order and formulation of ideas. Corrections and suggestions were made for the student to effect before submission.

BY
Mamafha Ndivhuwo Cynthia
Student No: 11602203

Signature **Date 18/02/2022**

Ext: 015 962 8288
Email: Emmanuel.sikitime@univen.ac.za
BA (ed), BA (Hons) English, Univen, BA Communication Science UNISA, MA (SLS) Stellenbosch University, PhD Univen