The Life Situation of Women Living with Podoconiosis atYechereqa Kebele in Dembecha Woreda West Gojjam Zone Amhara Region

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Declaration

I, the undersigned, declare that this thesis is my original work and all the sources or materials used have been duly acknowledged.

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Advisor's approval

This thesis has been approved for examination with my approval as a university advisor.

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This is to certify that the thesis prepared by Alemlante Kassa"The Life Situation of Women Living with Podoconiosis at Yechereqa Kebele in Dembecha Woreda West Gojjam Zone Amhara Region*"* submitted to the Department of School of Social Work for the partial fulfillment of Master Degree in Social Work, complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Acronym

°C- Degree Centigrade

CSAE-Central Statistical Agency of Ethiopia

FDRE-Federal Democratic Republic of Ethiopia

FGD –Focus Group Discussion

GO- Governmental Organization

KII- Key Informant Interview

KM-Kilo Meter

MM-Mil Meter

NGO-Nongovernmental Organization

NTD-Neglected Tropical Diseases

SNNP-Southern Nation, Nationality and People

TMIH-Tropical Medicine and International Health

UCLA-University of California Los Angeles

WHO-World Health Organization

Abstract

In Ethiopia, there is a scarcity of research related to perceived reasons, challenges, and copying strategies of women living with podoconiosis. This qualitative case study that was conducted in Dembecha Woreda Yechereqa Kebele describes the experiences of women living with podoconiosis. The study tried to answer to the question what is the experience of women living with podoconiosis? The objective of the study was exploring the life situation and copping strategies of women living with podoconiosis. The study was conducted by using purposive sampling and applied 5 women living with podoconiosis as participants, six women and six men for focus group discussion and 4 health experts as key informant. Genetics, exposure to red clay soil, being bare foot, and action of witch craft have perceived as the cause of podoconiosis. Unable to do regular economic activities, staying at home a number of days, forced to resign and unable to get job are economic challenge of the disease. Self and social discrimination such as loneliness, unable to get married and divorcing repeatedly are among the social challenges. Unable to move, couldn't wear shoes, change of appearance and deformation of leg are physical challenges. Keeping personal hygiene, abstain from work, wearing traditional long clothes and traditional magic practice as well as engaging in sex work and preparing local alcohol, giving the land for share are the coping mechanisms practiced by women living with podoconiosis.The study has implications for social work education at individual and community level. It has also implication for social work practice in terms of awareness, creating linkage with humanitarian organization and establishing of community support groups.

***Key words**: Podoconiosis, perceived reasons, economic challenge, social challenges, physical challenge, copying mechanisms*

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CHAPTER ONE: INTRODUCTION

1.1. Back Ground of the Study

The term podoconiosis was coined by Ernest Price, derived from the Greek words podos and konos, which mean foot and dust, respectively, and imply that the disease is caused by exposure of feet to irritant clay soil (Yimer, Hailu, Mulu, & Abera, 2015). It is an endemic non-filarial form of foot elephantiasis that affects poor farmers in rural area. It is caused by repetitive exposure to the soil, which contains a high concentration of volcanic and silica particles. The volcanic particles cut up the feet and disrupt the flow of lymph. It is a slow process and takes several years to develop. Unlike most forms of elephantiasis, it is non-filarial, meaning that rather than being caused by a parasite, it is caused by repetitive exposure to soil that contains silica particles (Jr & Maloney, 2012). Studies have indicated that podoconiosis exists in areas where the altitude is above 1000 meters above sea level and annual rainfall above 1000 millimeters (Deribe et al., 2017)

Molla, Tomczyk, Amberbir, Tamiru, and Davey (2012) indicated the five developing stages of podoconiosis where the first stage swelling is limited to below the ankle and is reversible overnight. The second stage swelling is not reversible; bumps and knobs present and remain below the level of the ankle. In the third stage of the disease, bumps and knobs are found above the level of the ankle. The fourth stage entails above knee swelling where as the fifth stage involves joint fixation as a result of surrounding soft tissue overgrowth. Like other disease, podo has its own symptoms. Davey (2010) indicated the early symptoms of Podoconiosis like itching of the skin of foot and a burning sensation in the foot and lower leg.

According to Maloney (2012) podoconiosis is a misunderstood disease and there are many false beliefs about the cause. Patients associate the factors and the prevalence of Podoconiosis with immense poverty, agricultural lifestyle, a poorly structured educational system and a ritualistic culture that does not have scientific reasoning.

People who are living in rural area on red clay soil and have no habit of wearing shoes are highly exposed to podoconiosis. Tekola, Mariam, & Davey (2006) noted that Podoconiosis predominantly affects barefoot subsistence farmers in areas with red volcanic soil. It is resulting from barefoot exposure to red clay soil of volcanic origin and prevails among subsistence barefoot farmers that live and work in these areas. Podoconiosis is highly prevalent in adults and productive work force members of societies. Destas, Ashine and Davey (2002) mentioned that the most cases of podoconiosis occur between ages 16 and 45 years which represents most responsible for agricultural and domestic productivity.

Podoconiosis has enormous social and economic challenges in affected areas. Patients may cost their economy for treatment exhaustively. According to Tekola etal. (2006) the total direct cost of podoconiosis is amounted to the equivalent of US$ 143 per patient per a year in worldwide and the productivity of the individual also decline significantly. Patients' loss their productivity amounted to 45% of the total working days per year, which is causing a monetary loss equivalent to US$ 63 per year. The socio economic challenges of podoconiosis in Ethiopia are very high. According to Tekola et al. (2006), out of 10 patients, seven to nine affected individuals tend to belong to the economically active age group population, and it is estimated to result in a loss of USD 1.6 million per year.

There has been some effort to alleviate the effect of the diseases especially on women. A few non-governmental organizations (NGOs) have tried to implement podoconiosis intervention programs in Ethiopia. They were jointly able to reach only 3% of the estimated cases, covering 12% of the endemic districts (Deribe et al., 2017).

According to baseline survey conducted in November 2011and noted by Mousley, Deribe, Tamiru, and Davey (2013) in Dembecha woreda, from 51,017 individuals 1,704 new cases of podoconiosis were identified. Yechereqa kebele was one of the area in which the case is highly prevailed.

I have motivated factors to select and conduct a research on these women patients in Dembecha woreda. The first reason is that, I observed the abuse and discrimination of the women because of the deformity and disability. Second, women living with podoconiosis are also suffered by lack of food, water, shelter, and medical care. Third, the facts about the problem has been neglected and remained hidden to the public and makes it worse to get a solution for the victims. Thus, assessing the issue by qualitative research, and exploring the life experience and coping strategies of women who are living with podoconiosis that lived in Dembcha Woreda Yechereqa Kebele is essential.

1.2. Statement of the Problem

Globally, it is estimated that there are at least four million people with podoconiosis and has been reported in more than 20 countries, of which ten had high burden of the disease (Samuel Tasew, 2015). It is found in at least 10 countries in tropical Africa, Central America and North West India, where red clay soils exist with high altitude, high seasonal rainfall and low income. It developed both in men and women who are working barefoot on irritant soils and

common in Africa(Davey, 2010). Geographically, the prevalence have been documented in Uganda, Tanzania , Kenya , Rwanda, Burundi, Sudan and Ethiopia , Equatorial Guinea , Cameroon, the islands of Bioko, Sao Tome & Principe and the Cape Verde islands (Davey, 2010). It is also estimated that up to 1 million cases of podoconiosis (i.e. 25% of the global total case load) exist in Ethiopia and the at-risk population for podoconiosis soil is estimated to cover 18% of the surface area, on which 22–25% of Ethiopia's population (19.3 million) lives (Samuel Tasew, 2015)

Tekola Ayele, Alemu, Davey, and Ahrens (2013) noted that the prevalence, the huge economic burden and the rate of podoconiosis significantly greater among women than men. In northern Ethiopia, people with podoconiosis were found to have much lower quality of life scores in all domains of life than healthy people from the same neighbor hoods (Deribe et al., 2015). In addition, despite existence of evidence that there is familial clustering of the disease due to genetic and non-genetic risk factors, the burden of the disease at the household level has not been studied (Tekola Ayele et al., 2013).

Many Ethiopian podoconiosis patients have no better understanding and knowledge about the cause of the disease. Jr & Maloney (2012) mentioned some reasons like the false belief about the true cause of Podoconiosis. Patient parents told a myth about podoconiosis that was passed down from generation to generation. This myth is accepted as a truth because there is no overarching figure that keeps all of society up to date on medicine and health concerns, as in the developed world where there is the internet and social media (Maloney, 2012). Poor farmers especially women are vulnerable because of lack of technology, unable to afford shoes, working long hours in the fields to fulfill their families' needs. According to Yimer, Hailu, Mulu and Abera,(2015) the diseases has been present in Ethiopia for centuries but received little attention

from health care policy makers, either because it is not an immediate threat to life, or because of a lack of information on the socio economic challenges of the problem. There is a study that shows socio-cultural and economic factors which makes women more vulnerable to podoconocisis than men due to males more commonly wear shoes (Davey, 2008). Besides, the magnitude and intensity of podoconocis highly affect poor women. Podoconiosis does not have specific coping mechanisms, but primary prevention and coping strategy consist of avoidance of prolonged contact between the skin and irritant soils by robust footwear or covering of floor surfaces in areas of irritant soil, training in foot hygiene like washing the legs daily with soap and water (Tukahebwa et al., 2016). Mapping of the disease burden, identifying the best approaches, advocating of prevention and control measures also helps to control podoconiosis **(**Derib et al. 2013)

Different studies have been conducted on podoconiosis. A study conducted on podoconiosis by Korevaar and Visser (2012) indicated that podoconiosis is highly associated with low-income countries in the tropical Africa, Central and South America, and north-west India with high altitude and high seasonal rainfall. But, the study did not elaborate the challenges of the diseases on women's life. In 2016 cross sectional study was conducted by Tukahebwa in Kibaale and Kyenjojo western Uganda and the result showed that, cases of podoconiosis more affects women and has a limited explanation about the experience and coping mechanisms of women living with podoconiosis. In 2012, a cross-sectional household survey was conducted in Debre Eliyas and Dembecha woredas (districts) in East and West Gojam Zones by Molla,Tomczyk, Amberbir,Tamiru, and Davey. The survey has shown the prevalence of podoconiosis in the economically active age group (15–64 years), but has limited explanation about the physical, social challenges and coping mechanism of women living with podoconiosis.

The researcher has a number of reasons to deal with the issue of women living with podoconiosis. First, the perceived reasons of women living with podoconiosis, challenges and copying mechanism are not qualitatively studied by the academic community in Dembecha woreda. In other words, it is the social issue and has not been addressed in prior researches at the study area. Second, the issue of women overloaded problem is a global and national concern. Hence, conducting research on this issue helps to aware the community. Third, the researcher studying women living with podoconiosis, because it is one of the issues of the community in which social work professionals have a key role. Hence, the researcher believes that investigating such sensitive issue in such particular society is essential. This research is therefore, anticipated to fill the above research gaps.

1.3. Research Question

1.3.1. Major Research Question

What is the life situation of women living with podoconiosis at Dembecha Woreda Yechereqa Kebele.

1.3.2. Specific Research Questions

- What are the perceived reasons of women living with podoconiosis and the community about podoconiosis?
- What are the physical, social and economic challenges of women living with podoconiosis?
- What are the coping strategies of the women living with podoconiosis?
- What are the challenges for combating podoconiosis?

1.4. Objective of the Study

1.4.1. General Objective

The general objective of this study is to explore the life situation of women who are living with podoconiosis that resides in Yechereqa Kebele Dembecha Woreda.

1.4.2. Specific Objectives

- To explore the perceived reasons of women living with podoconiosis and community members about podoconiosis disease.
- To assess physical, social and economic challenges of women living with podoconiosis.
- To explore the copying strategies of women living with podoconiosis used to survive and get cure from the disease.
- To assess the challenges for combating podoconiosis

1.5. Significance of the Study

This study has a significant contribution to understand the issue of podoconcisis in relation to women's lives, perceived reasons, challenges, and coping strategies. Knowing the perceived reasons helps social worker to design proper strategy for intervention, care and support. The finding contributes for social work implication like practice and research. It also serves as a reference to design strategies to improve the life situation of women living with podoconocisis. Besides, non-governmental organizations either community or faith based can use it as an input to design a project and plan of action to provide social services for women living with podoconiosis. Besides, it might be a source of reference for those who are interested to conduct a research on podoconiosis. It also enlightens the situation of the victims coping

strategies. The study also helps to the study participants to get attention from the government bodies and other humanitarian organization.

1.6. Scope of the Study

This qualitative study focused on the life situation of women living with podoconiosis that resides in the rural area of Dembecha Woreda Yechereqa Kebele. The researcher preferred to study the issue in rural environment because the familiarity and knowing the area, participants and prevalence of podoconiosis as well. In addition, in such area support and respect of women who are living with podoconiosis is limited due to different factors like health services. Geographically, the study is limited in Yechereqa Kebels of Demebecha Woreda, west Gojjam Zone, Amhara region.

1.7. Limitations of the Study

There are a number of limitations in this study. The first limitation is lack of reference on perceived reasons about podoconiosis and coping strategies of women living with podoconiosis. The second limitation is, as the study participants mentioned different types of plants which can serve for medication, and types of jewelries presented to magicians and traditional healers which are important for further investigation and explanation. However, the researcher didn't observe physically the plants as well as the type of jewelries.

1.8. Operational Definitions

Podoconiosis- is a disease that affects rural women who have prolonged contact with irritant minerals soil.

Women living with podoconiosis: women that are affected by podoconsiosis

Experience: factual living conditions and challenges that women living with podoconiosis actually experiencing in their life.

Coping: the term coping defined as, it is a process of managing the deterioration and seeking to master the conflicts of daily functioning. Hence, for the purpose of this study coping is defined as actions which are taken by women with podoconiosis to treat, manage their illness or health seeking behavior, treatment and care practices (Chentouf, Greiser,Leroux& Schimrik 2009)

Elephantiasis: a type of diseases that is characterized by the thickening of the skin and underlying tissues, especially in the legs, male genitals and female breasts.

Neglected tropical diseases: are a group of conditions causing significant morbidity and mortality and received only minimal attention.

Perceived reason: the understanding and experience of research participants about the cause of podoconiosis

Physical challenge: limitation on a person's physical functioning, mobility and daily living as a result of podoconosis.

Social challenge: refer to problems that people have interacting with people in the society.

Economical challenge: financial and material related problem of women living with podoconiosis

1.9. Organization of the Study

This study is organized in six chapters. The first chapter deals with the background of the study, statement of problem, objectives of the study, research question, significance of the study and limitations of the study. The second chapter covers the review of related literature; while the third chapter deals with the research design and methodology employed. In the fourth chapterfindings are discussed whereas chapter five presents the discussion of the finding and the six chapter deals with conclusion and social work implication.

CHAPTER TWO: LITERATURE REVIEW

In this chapter, literatures reviewed in relation with the nature of the podoconiosis, the distribution of the disease in the world, Africa and Ethiopian. Perceived reasons, economic, social and physical challenges of persons living with podoconiosis have been reviewed. Also challenges for combating and copying mechanisms of podoconiosis of different research stated.

2.1. Nature of Podoconiosis

Podoconiosis as a disease represents a major public health problem in tropical and sub tropical regions of the world, which is characterized by the thickening of the skin and underlying subcutaneous tissues, especially in the legs and male genitals and female breasts, causing permanent disability. It is generated in areas 1500 m above sea level and greater than 1000 mm annual rainfall and maximum temperatures of >20°C (Yimer, Hailu, Mulu, & Abera, 2015). According to Hotez, Paredes, Ault, and Periago (2008) podoconiosis is a neglected tropical chronically disabling and deforming disease. Neglected tropical diseases (NTDs) are a group of conditions causing significant morbidity and mortality worldwide that received only minimal attention from most of the world, largely affect the poorest, most vulnerable and most disenfranchised members of society (Hotez, Paredes, Ault, and Periago, 2008). These groups of diseases especially podoconiosis affect the most vulnerable segment of people that have no access for health and other infrastructure. (Hofstraat & Van Brakel, 2015) of Health found that those living in poverty and live in deprived rural communities where basic facilities are non-existent, remain the most vulnerable and die younger. Those most affected are the poorest populations often living in remote, rural areas, urban slums, or conflict zones. Women are biologically “at risk” for acquiring NTDs during pregnancy and birth. These vulnerabilities in turn affect children’s development. For example, soil-transmitted helminthes contribute to

anemia in pregnant women, jeopardizing the health of both mother and fetus. Stigma and exclusion that are experienced by women with lymphatic filariasis can have severe economic consequences by preventing marriage or childbearing (Choffnes and Relman, 2011, p.13).

Podoconiosis results from a complex interaction between genes and the environment occurring overmany years. Mineral particles from the soil penetrate the skin causes inflammation and blockage of the lymphatic drainage. This results in oedematous feet and legs andsubsequently progresses to elephantiasis, including nodular skin changes.These changes are themselves disabling, and painful intermittent acute inflammatory episodes cause further debility(Deribe, Cano, Trueba, Newport, & Davey, 2018).

Podoconiosis is a geographically localized disease, clinically distinguished from lymphatic filarisis through being an ascending and usually bilateral lymph edema(Davey, 2010).The key early signs of podoconiosis are splaying of the forefoot, swelling of the foot and lower leg that disappears after overnight rest and thickening of the skin over the dorsum of the foot, and moss-like rough, warty growths on the feet. With time, the swelling of affected legs (lymphoedema) becomes either soft and pitting or nodular and fibrotic.(Deribe et al., 2015)
As Deribe et al.,(2015) indicated there are point-of-care diagnostic tests for lymphatic filariasis, such tests are not very sensitive in detecting filarial infection among advanced cases but The absence of any point of care tests for the diagnosis of podoconiosis is a continued challenge, especially when considering the disease's elimination.

Podoconiosis can be distinguished from filarial elephantiasis through history and clinical examination: it develops first in the foot, it causes bilateral but asymmetric swelling often confined to the lower leg and groin involvement is rare. In contrast, the swelling of lymphatic filariasis is commonly found above the knee and often involves the groin(Bekele et al., 2016).

2.2. Podoconiosis in the World

In February 2011, the World Health Organization designated podoconiosis as one of the 20 neglected tropical diseases. Despite being widespread, so far research into the disease has been scarce and the pathogenesis is partly unclear**.** It is widely distributed in three continents; Africa, Central America and Asia particularly in India (Korevaar, 2012).This disease is occurring in individuals whose bare feet are exposed to red clay soil from alkaline volcanic rock. This skin irritation which is common and endemic in the highlands of tropical Africa, Central and South America, and Northern India, has a significant social, psychological, and economic impact on the affected persons (Morrone et al., 2011). According to Deribe et al (2013) podoconiosis exists or endemic in 32 countries, 18 from the African Region, 3 from Asia and 11 from Latin America and the prevalence ranges from 0.10% to 8.08%, highest in the African region, and substantially higher in adults than in children and adolescents.its global distribution and epidemiology are poorly understood. Almost all prevalence data recorded corresponded to the African region. None of theLatin American countries reported prevalence data, although some countries are suspectedto be endemic(Deribe et al., 2018). Recognition of podoconiosis in worldwide distribution has been delayed by many factors, and unlike filarial elephantiasis it is not reported in medical statistics(Fasil Tekola, Ayele 2014).The global epidemiology of the disease is largely uncertain due to the absence of accurate and easy-to-use diagnostic tools such as a point-of-care diagnostic test and even the prevalence has been reported intermittently across a range of settings, it has never been prioritized either in intervention or research programmes(Deribe et al., 2018)

2.3. Podoconiosis in Africa

In Africa, at least 10 countries with the disease have been identified including; Ethiopia, Kenya, Tanzania, Uganda, Rwanda, Burundi, Sudan, Equatorial Guinea, Cameroon, Sao Tome, Principe, the Cape Verde islands and the prevalence of the disease varies from country to country and as indicated in nationwide surveys document, an average prevalence of 1% in Burundi, 0.6% in Rwanda, and 0.4% to 3.7% in Ethiopia (Deribe et al., 2013,p. 1). In endemic highland areas of these countries podoconiosis is more prevalent than commonly known diseases such as HIV/AIDS, tuberculosis, malaria, or filarial elephantiasis. However, podoconiosis has not yet been adequately incorporated in the health management and information systems, health professionals' education curricula, and governmental health facility services (Fasil Tekola, 2014).

The majority of podoconiosis patients in Africa are poor and uneducated, consequently unable to afford protective shoes or unaware of the role of wearing shoes and washing feet to prevent development of the disease (Davey *et al*., 2007). It kills, impairs or permanently disables millions of people every year, often resulting in life-long physical pain, social stigmatization including economic consequences, mental disorders and distress (Tora, Mengiste, Davey, & Semrau, 2018).

Important ecologic factors with regard to podoconiosis like land surface temperature, mean annual precipitation, topography of the land and most importantly, the existence of irritant soils information, soil maps facilitates research and decision making. These information are already available in Europe, Latin America and Caribbean Islands and Asia but not available in most parts of Africa.(Visser, 2014).

2.4. Podoconiosis in Ethiopia

Deribe et al.(2017) stated that in Ethiopian context, until 2013, podoconiosis was neglected because it was found to be non-communicable and overwhelmingly cause morbidity rather than mortality. Following the pioneering work of Ernest Price in the 1970s and her death in 1990, there was little discernible pattern of interaction between research and policy. Soon after her death, podoconiosis entered a dark age for over a decade. However, its revival began with the Ethiopian millennium, with initiation of podoconiosis research in Addis Ababa University, School of Public Health (Deribe et al., 2017). This disease affects many Ethiopian due to different social, cultural and red clay soil type , approximately 500,000 to 1 million people are at risk of being affected by this disease owing to the clay soil, present in a wide area of the country, and to the habit of not wearing shoes (Morrone et al., 2011).

More recent studies in Ethiopia estimated a prevalence of 5.5% in Southern Ethiopia, 5.2% in western Ethiopia, 7.4% in central Ethiopia and 3.3% in northern Ethiopia. The prevalence of podoconiosis varied by region: 4.8% in SNNP, 4.4% in Harari, 3.0% in Amhara, 2.5% in Oromia, 1.6% in Tigray, 0.6% in Gambella, 0.4% in Benishangul Gumuz and 0.4% in Dire Dawa (Deribe et al, 2013,p. 2). The following map adopted from Deribe.etal. (2013 p.3) shows the spatial distribution of podoconiosis in Ethiopia.

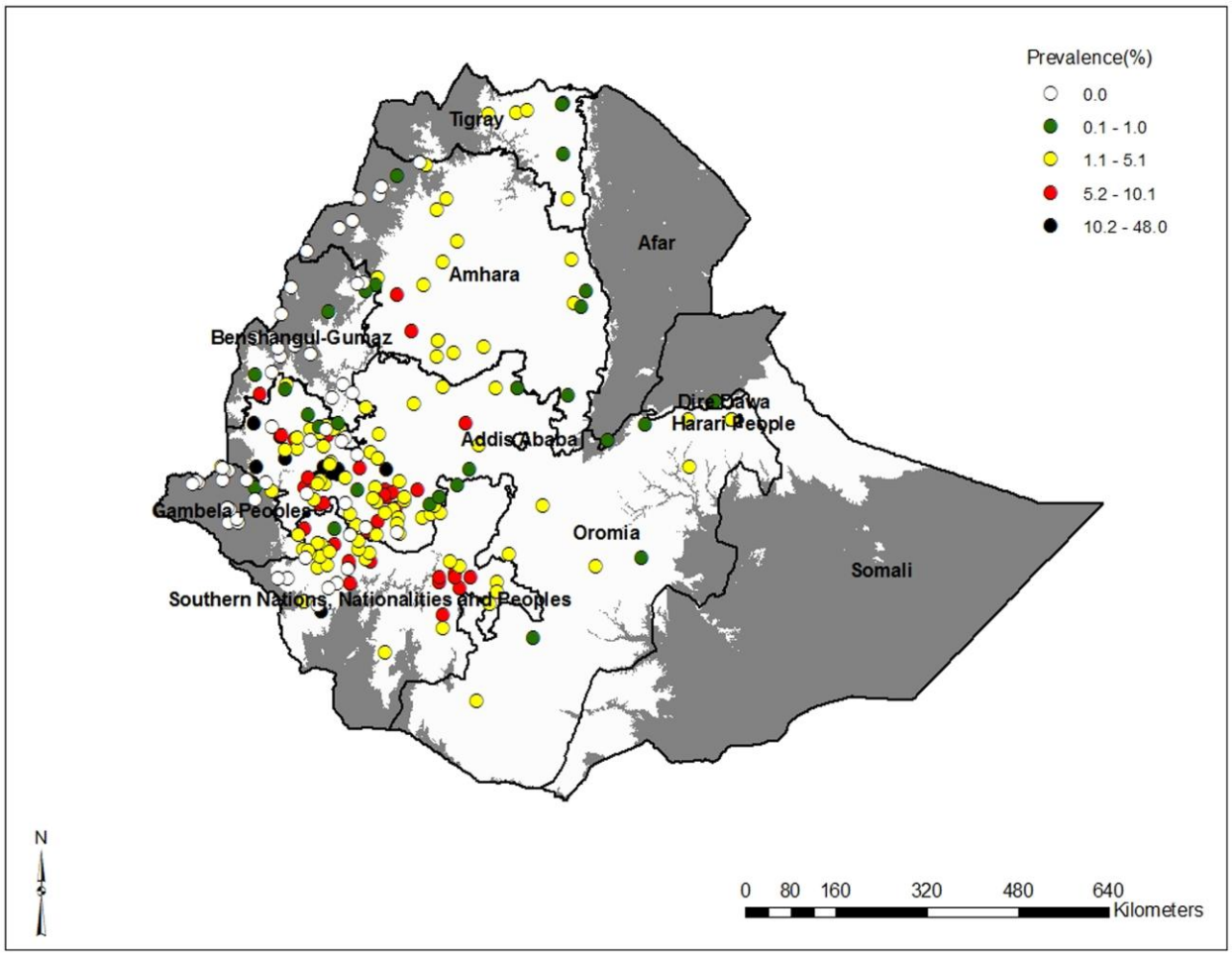

Figure1. Geographical distribution of podoconiosis in Ethiopia, surveys conducted on podoconiosis

Yimer, Hailu, Mulu & Abera, (2015) have indicated that it is distributed in Gulliso district west Ethiopia, Midakegn district central Ethiopia, Bedele Zuria district west Ethiopia, Ocholo southwest Ethiopia, Gera and Didessa western Ethiopia, east and west Gojjam and northwest Ethiopia. A recent study also mapped podoconiosis nationally and showed that the disease is endemic in 345 districts and had a prevalence of 4% nationally. In addition, 34.9% of the Ethiopian population lives in an environment conducive for podoconiosis (Deribe et al.2017).

Even though in Ethiopia, there are about 500,000 and 1 million people living with podoconiosis at nation level and 11 million people are at risk in the country, there is no specific

policies in the country which would recognize the full and equal enjoyment of fundamental rights including the right to health(Kidus Meskele Ashine, 2011).

To prevent and control podoconiosis, Ethiopia has included this disease in its national master plan since 2013.The current national NTD master plan, which will last from 2016 to 2020 noted that neglected tropical disease were not given the required attention at various level and identified eight priority NTD: onchocerciasis, lymphatic filariasis, schistosomiasis, soil transmited helminthes, trachoma, dracunculiasis, podoconiosis and leishmaniasis. Data on the burden and distribution of these diseases are incomplete and not updated on timely basis and also, access to preventive, rehabilitative and curative services is inadequate and often fragmented when available(FDRE NTD Master Plan, 2016)

2.5. Perceived Reasons of Podoconiosis

Patients of podoconiosis have different perception about the cause and coping mechanisms of the disease. According a study conducted by Samuel Tasew (2015) patients have different perception about the causes, some did not know, others related the cause to barefoot walking, heredity, curse from God or the action of a witch craft, injury, exposure to sunshine and in the case of coping and prevention patients perceive podoconiosis as preventable disease, and others consider it not prevented or controlled. Furthermore, Yimer, Hailu, Mulu, & Abera (2015) also indicated that accesses to clean water and host genetic factors are important determinants of susceptibility to podoconiosis .The people believe that anyone who has the disease in the bloodline of the family can pass it on to the children born to that person. Tora, Tadele, Aseffa, Mcbride and Davey (2017) on the study of health beliefs of school-age rural children in podoconiosis-affected families found that podoconiosis is caused by environmental factors such as barefoot exposure to worms, germs, poison, dew, chilly weather, snake bite, frog urination;

injuries by sharp things particularly, rusty metal, blade, needle, and spine, pond water, exposure to sunstroke, insulting an affected person and lack of exposure to sun in childhood. In Uganda, the perception cause of podoconiosis related with Prolonged foot exposure to irritant volcanic soils (as a result of not wearing protective foot wear while at work and home and delayed foot washing to get rid of irritant soils) strongly associated with the disease and women had a higher risk due to the fact that, in rural Uganda, women are more likely than men to be engaged in agriculture activities and spend longer periods in the fields and are therefore more exposed to irritant soils (Kihembo et al., 2017).

2.6. Challenges of Podoconosis

Podoconiosis has enormous social, physical and economic challenges for affected individuals. Social stigmatization of people with the disease is widespread and patients are banned from schools, local meetings and churches, and not allowed to marry into unaffected families. Patients going to non-specialist health services often encounter a lack of expertise and prejudicial attitudes among health workers (Tukahebwa et al., 2016)

2.6.1. Economic Challenge of Podoconiosis

According to Tukahebwa et al.(2016)), the stiffness of the skin and the increased diameter of the legs result in severe disability of the patient. Therefore, podoconiosis threatens economic development because it mainly affects the most productive people (16 to 45 years of age) and increases poverty-disease cycle. The annual economic losses for Ethiopia are estimated to exceed US$ 200 million in lost productivity and medical costs (Korevaar, 2012). The economic challenge of podoconiosis on patients and affected patients' families is also huge. Poverty contributes to the disease because patients do not wear shoes that inability to afford them and podoconiosis contributes to poverty because patients could not work hard (Tasew, 2015).

2.6.2. Social Challenges of Podoconiosis

Podoconiosis imposes immense social burden. It is a poorly understood disease and this has led to widespread misconceptions about the causes, prevention and copying mechanisms. Although it is rarely a cause of mortality, podoconiosis is a disabling and highly disfiguring condition which places a large psychosocial burden on individual patients ((Deribe et al., 2017). Social stigma related to podoconiosis has a major challenge on the psycho-social well being of patients. In endemic areas, podoconiosis is one of the commonest causes of stigmatization against community members. The disease leads to social exclusion of individuals and their families. In the studies related to stigmatization, patients commonly reported that they had considered suicide in response to discrimination and prejudice, particularly in interpersonal interactions. Forced divorce, dissolution of marriage plan, insults and exclusion at social events were some of the most commonly mentioned forms of enacted stigma reported patients (Samuel Tasew, 2015). Podoconiosis patients frequently experience stigma in their day to day interactions with family members. Major causes of family stigma include unwillingness to cover care and treatment, a perception that the disease is contagious, fear of public identification of familial disease and inability to be economically productive (Tora *et al.* 2011).The main reasons for prevailing such discrimination against patients and affected families are the erroneous belief that the disease cannot be prevented, treated or controlled; association of the disease with curses; and the belief that the disease runs in families through hereditary factors that are inevitable (Tasew, 2015).

2.6.3. Physical Challenges of Podoconiosis

Podoconiosis is caused by prolonged exposure of bare feet to irritant alkaline clay soils that penetrate the skin and provoke an inflammatory response which leads to blockage of lymphatic vessels, and patients suffer from disabling of physical challenges and its most obvious manifestations is enlargement of the entire leg or arm, the genitals, vulva and breasts (Visser, 2014). The Physical disability is associated with mobility, self-care, usual activity and pain or discomfort and open wounds (TMIH, 2005).

2.7. Challenges of Combating Podoconiosis

There are many social, economic and infrastructure challenges to combat podoconiosis. Deribe, Tomczyk, & Tekola-Ayele (2013) noted the challenges and burden of podoconiosis in related to research and controls: total dependence on treatment services and limited involvement of government health services, un sustainability of prevention efforts, limited knowledge of mid- and high-level health professionals, neglect of global health advocates of non-infectious and non-fatal, limited amount sources of funding available for research and interventions, absence of comprehensive data on the distribution and burden of podoconiosis, lack of diagnostic tools, which are necessary for delivery of treatment and interventions(Deribe, Tomczyk, Ayele, 2013). In endemic areas, the majority of the community holds significant misconceptions about causation, copying mechanisms and prevention of the disease and the management of podoconiosis services is still not offered in more than 70% of endemic districts and approximately 90% of cases have yet to be addressed (Korevaar, 2012). Resource constraints continue to be a large barrier to train health providers, obtain necessary treatment supplies and expand critical services to all endemic districts (Deribe et al.2017). Affected individuals and community members reported many challenges in their daily life. Many persons wade in the

river to be able to wash their feet but the river is thick with silica soil and it doesn't properly clean their feet. Others are too tired to wash their feet after a long day working in the fields. The other challenge is, women affected by podoconiosis may not be able to marry and aren't going to health center because it is too difficult to travel because of the remoteness of the areas. Other patients use traditional medicine and inability to buy shoes in addition to a lack of attention by clinical health workers (Tomczyk, Tamiru, Davey, 2012).

2.8. Coping Mechanisms of Podoconiosis

According to Yimer, Hailu, Mulu &Abera (2015) the negative economic and psychosocial challenges of podoconiosis can be averted, if it is detected and correctly managed early. Building scientific evidence and advocacy has improved the awareness of diseases and resulted in improved knowledge and documented best practices for planning of the copying mechanisms and prevention needs of podoconiosis patients. This has led to a clear sense of urgency among the government, Universities, research institutes, funders, and non-governmental organizations to forge a partnership against podoconiosis (Deribe et al.2017). Podoconiosis is unique in being an entirely preventable, non-communicable tropical disease with the potential for eradication. Low-cost preventive measures are a simple but effective solution (Korevaar, 2012).Therefore, primary copying strategy should consist of education on the etiology and how to avoid prolonged exposure to irritant soils, most importantly by using appropriate and protective footwear, covering floor surfaces and applying skincare (Korevaar, 2012).For those already affected by the disease, the main copying strategy is hygiene-based management which includes foot hygiene, foot care, wound care, compression, exercises, elevation of the legs and treatment of acute infections (Kebede Deribe, 2018). According to Tora et al (2011), podoconiosis patients employ a range of coping strategies to overcome the stigmatizing

environment like avoiding to going to social events, wearing shoes and long clothes, avoiding marrying unaffected people (by considering and fearing the insults and humiliation after marriage), changing place of residence.

Summery

Podoconiosis is a form of elephantiasis that predominantly affects barefoot subsistence farmers in areas with red volcanic soil and have no the habit of wearing shoes. It is a major public health problem that thickening of the skin and causing permanent disability. As the literature shows, it is the disease of the poor that received little attention by the government. podoconiosis patients in Africa are poor and uneducated, consequently they unable to afford protective shoes or unaware of the role of wearing shoes and washing feet to prevent development of the disease. The disease impairs or permanently disables millions of people every year, often resulting in life-long physical pain, social stigmatization economic consequences, mental disorders and distress. Due to socio cultural factors women are more vulnerable than men.

Research on the prevalence and distributions of the disease is not much a challenge. The main gap is identifying the main challenges in terms of gender, how the infected individuals cope up the disease, and the perception and knowing the challenges to combat the disease. This study that was conducted in Dembecha Woreda Yechereqa Kebele on the situation of women living with podoconiosis showed the vicious circle economic, social and physical challenges of podoconiosis on infected women's life. It also enlightens the perception about the cause and coping strategies of the disease. Besides, this study also identifies the main challenges to combat the disease.

CHAPTER THREE: RESEARCH METHODOLOGY

In this section, the methods and strategies in which the researcher applied in all process of the study stated. Research philosophical stance, research design, description of the study area, selection of study participants, and method of data collection, data collection procedure, data analysis; data quality assurance and ethical consideration are parts of this chapter.

3.1. Researcher's Philosophical Stance

This study was conducted based on multiple sources and subjective understanding experiences of women who are living with podoconiosis. The researcher believes that reality should be conceptualized in its context and every individual has its own meaning for their situation. In this study, women who are living with podoconiosis can construct the meaning of their personal, cultural, and historical experiences. As a result, the philosophical stance of the researcher is social constructivism. Social constructivists believe that individuals seek understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences meanings directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas (Creswell,1997). The researcher rely on the participants views of the situation and emphasizes the significance of qualitative research in sense of constructive knowledge. As a result, the participants of this study view the issue in various ways, and they may perceive podoconiosis differently. In order to understand and capture the various and multiple subjective meanings of the participants of this research, the researcher applied in depth interview, focus group discussion, and key informant interviews and listens carefully to what people say in their life settings.

3.2. Research Design

In this study the researcher believes that, case study is appropriate approach to explore the distinctive and multifaceted experiences of women who are living with podoconiosis. According to Creswell(2003) case study is a qualitative approach in which the investigator explores a bounded system(a case) or multiple bounded systems (cases) through detailed, in –depth data collection involving multiple sources of information (e.g., observations , interviews, audiovisual material, and documents and reports) and reports a case description and case-based themes. According to Boblin, Ireland, Kirkpatrick, & Robertson (2013), there are three types of case studies intrinsic (undertaken to learn about a unique phenomenon), instrumental (to gain a broader appreciation of an issue or phenomenon) and collective (involves studying multiple cases simultaneously to generate broader appreciation of particular issue). For this study, qualitative case study specifically intrinsic case study approach was used to assess the experience of women living with podoconiosis from different sources. In intrinsic case study research, the researcher want to know more about a particular individual, group, event, or organization (Baxter & Jack, 2008).This study is descriptive designs and single case study that researcher attempt to present a complete description about podoconiosis in women's life. As a result, the number of women who are living with podoconiosis is not a matter rather podoconiosis, but the unit of analysis is women who are living with podoconiosis. Therefore, in this study design approach the researcher tried to understand the life situation of women living with podoconiosis in Yechereqa Kebele Dembecha Woreda. As a result, intrinsic case study enabled the researcher to learn the life situation of the participants in their natural settings, phenomenon of podoconiosis in terms of the meanings that participants brought to the researcher. Besides, this qualitative case study method enabled the researcher to adopt a flexible research strategy and conducting naturalistic

inquiry in real-world. Indeed, this case study approach is appropriate to understand the life situation of women living with podoconiosis and coping strategies. Therefore, it is the most appropriate means of assessing the life situation of women living with podoconiosis in related to challenges, and the coping mechanisms of the women living with podoconiosis and other participants from their point of view.

3.3. Description of the Study Area

Dembecha woreda communication office noted that Dembecha is one of the woredas in the Amhara Region of Ethiopia. Part of the West Gojjam Zone, and is bordered on the west by Bure, on the northwest by Jabi Tehnan, on the north by Dega Damot, and on the east and south by the Misraq Gojjam Zone. It is located about 370 km North West of the capital of Ethiopia, Addis Ababa, and 220 km South East of Bahair Dar, the capital of Amhara region. The climate is long summer rainfall between June-September and winter dry season between December-March with a mean annual rainfall 1200-1600 mm. The mean temperature is between 10-20ºC and altitude ranges from 1400-2300 meter. The soil type is 65% red clay, 25% brown and 10% black soil. The mean agricultural activities currently practice includes irrigation, animal production and crop production (mixed farming activities that holds 90%) of the total agricultural activities. Addis Alem,Yechereka, Dembecha considered as town in Dembecha woreda (Dembecha Woreda Communicationoffice, 2018). Based on the 2014 national census conducted by the Central Statistical Agency of Ethiopia (CSA), this woreda has a total population of 129,260, of whom 64,683 are men and 64,577 women; 17,913 or 13.86% are urban inhabitants. With an area of 971.29 square kilometers, it has a population density of 133.08, which is less than the Zone average of 158.25 persons per square kilometer. A total of 30,731 households were counted in this woreda, resulting in an average of 4.21 persons to a household,

and 29,608 housing units. The majority of the inhabitants practiced Ethiopian Orthodox Christianity, with 99.13% reporting that as their religion while 1.46% is Muslim (CSA, 2007).

3.4. Selection of Study Participants

Creswell (2007 p. 239) recommends 4-5 research participants in case study. As a result, 5 women who are living with podoconiosis were selected for the in-depth interview. Adams, Anne, Cox, Showkat & Parveen (2017) recommend focus group participants six - seven or (eight at a maximum) and it should not smaller than three people; because too large participants are more likely to break off to talk in sub-groups and leave people out of the discussion and too small is hard to keep the conversation going in depth for the participants. For the purpose of this study, two FGDs (six women and six men) were formed from community members. One group was only women participants and the other group consists of men to maintain homogeneity and to ensure each member of the group gets an opportunity to forward their views, to balance the meeting, and to encourage sense of well-being among participants and to reach some consensus on the subject. The other participants were three health extension worker and one health expert who know the case of the women who are living with podoconiosis experience included as key informant.

All participants were selected purposively. As a result, purposive sampling was applied to select research participants. Purposive sampling is best for the researcher in understanding of the problem, research question and also applicable for different approaches in qualitative research design including case study and used to select persons who have the knowledge and experience about the phenomenon to address the topic being studied (Creswell, 2007).

The participants of the study were recruited based on the following inclusion criteria.

- ✓ Willingness to participate on the study
- ✓ Only women who are living with podoconiosis were selected for the in depth interview participants
- ✓ For the purpose of FGD, being neighbor to women who are living with podoconiosis and with no podoconiosis, and have knowledge of the disease were selected
- ✓ Being health expert and working at least for 2 years in one of the health stations of Dembecha woreda were selected for the key informant interview
- ✓ Living in Dembecha woreda Yechereqa Kebele
- ✓ Able to hear and explain their experience properly.

Even if the selection was done in such manner, the numbers of study participants were determined by data saturation. Data saturation is the point where new data and their sorting confirm the categories, themes, and conclusions already reached (Suter, 2012). After the participant selection, contacts were done through phone and other means of proper and effective communication with each participant before the interactive interview done. Then, rapport was built up and asked for their consent to participate in the study. To select the participants, the researcher built up rapport and had made contact with health extension workers and key individuals in the village as a gate way. These bodies were helping the researcher to select potential participants.

3.5. Method of Data Collection

Data collection in case study research is typically extensive, drawing on multiple sources of information such as observations, interviews, documents, and audiovisual materials (Creswell, 2003) .In this study, the researcher was collecting qualitative data by observation, in-depth interview, focus group discussion and key informant interview.

3.5.1. Non-Participatory Observation

Observation help the researcher to have first-hand experience with participant, record information as it occurs, to explore topics that may be uncomfortable for participants to discuss (Creswell, 2007). In this study, the non-participatory observation was used to grasp visible facts regarding to the actual situations of the women living with podoconiosis under study. At this point, the researcher observed the feeling, gesture, facial expression and the match between their internal feeling and external expression. The researcher also closely observed the homes of the women who are living with podoconiosis, sanitation, household arrangement and neighbor hoods settings.

3.5.2. In-depth interview

An interview is important in qualitative research method in which the researcher collects data directly from the participant significant unfolding opinions, experiences, values and various other aspects of the population under study Parveen & Showkat (2017). In this study, in-depth interview was used to collect data from the experience of women living with podoconiosis. It also allowed the researcher to explain or clarify questions and to be flexible in administering interview to particular women living with podoconiosis in particular circumstances (Creswell, 2007). For the purpose of this study**, o**pen ended interview guiding questions were prepared both in English and Amharic version and the Amharic version was used in the interview. The

interview guides focused on the profiles of the participants, reasons, challenges, coping strategies and treatments of podoconiosis. The researcher conducted a pre-test on two women who are living with podoconiosis and modification was made based on the pre-test result. For all participants, the interview was conducted in the residents of the participants and the duration of the interview was depended on the clarity of the issues. The in depth interview was conducted with 5 women who are living with podoconiosis and the shortest duration was 30 minutes and the longest 1:20 minutes.

Since, it is in-depth qualitative interview, probing was made when interesting points arise. The researcher was making clear each questions to the participants before starting the interview. This helped the researcher and the participants to concentrate on the issue and avoids confusion. The interviews and responses were recorded based on the interest of participant and ethics. In addition to the interviews, the researcher was taking field notes to describe the settings, physical appearance, facial expressions, emotions of participants, and reflections.

3.5.3. Focus Group Discussion

Focus group discussion is a qualitative data collection technique in which a selected group of people discusses a given topic or issue in-depth, facilitated by a professional, external moderator and serves to solicit participants' attitudes, perceptions, knowledge, experiences, practices, and interaction with different people Eeuwijk & Zuzana (2017).In this study, data were collected from the community members concerning to their attitudes, perceptions, knowledge, experiences, practices, and interaction with women who are living with podoconiosis. The FGD discussion was conducted with 6 women and 6 men. The duration with women FGD was 41 minutes and 48 minutes with men.

3.5.4. Key Informant Interview

Key informant interviews are qualitative in-depth interviews with people who know what is going on in the community and data is collected from a wide range of people—including community leaders, professionals, or residents—who have firsthand knowledge about the community that can provide insight on the nature of problems and give recommendations for solutions (UCLA Center for Health Policy Research , 2016)). In this study, key informant interview was conducted with 4 health worker. The shortest duration was 22 minutes and the longest was 30 minutes.

3.6. Data Collection Procedure

The data collection procedure was started from rapport building with community members and potential research participants through the gate keepers namely, the kebele administrators, health officers and health extension workers. In the first contact, the researcher introduced himself, the objective and significance of the study, highlight themes of interview guides, brief the rights and duties of participants and fix the time and place of interview.Then, deep interview was conducted with women who are living with podoconiosis, focus group discussion and key informant interview. The interview was started from participant's profiles, and this created smooth conditions to proceed to the next interview questions and enabled to the researcher to explore the conditions of perceived reasons, challenges and coping mechanism of podoconiosis. In each interview sessions, the researcher was making observations and taking notes; probing was made to encourage interviewees to give further explanations. All participants were respected and treated ethically. Researcher was not allowed to any involvement of third person on the data gathering process for the quality of the study and confidentiality of the participant's. The time and place of interview arrangement was decided by participants. In order

to collect data from focus group discussion, preparing the FGD guide, identification of participants and guiding format was developed. Similarly, to collect data from key informants, the researcher formulated interview guide questions, reviewed available information, and select key informants.

Before closing interviewing session, the researcher was asking the participants to add some points about their experience. 3 times visiting of participants was made for the purpose of data quality. The researcher was stayed for 23 days in the field. At last, the researcher was presented great thanks for the devotion of time and energy, and paid one hundred birr for all participants and FGD discussants as compensation.

3.7. Data Analysis

Qualitative data analysis can be described as the process of making sense from research participants' views and opinions of situations, corresponding patterns, themes, categories and regular similarities (Ogino & Tanaka, 2014). Gibbs (2007) define qualitative data analysis as a process of transformation of collected qualitative data, done by means of analytic procedures, into a clear, understandable, insightful, trustworthy and even original analysis.

Different researchers noted some steps for qualitative data analysis. Morrow, Rodriguez, and King (2015) illustrated seven steps for the process of rigorous case data analysis. These are familiarization, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description, producing the fundamental structure, and seeking verification of the fundamental structure. Also Creswell (2003) mentioned the steps of data analysis as organize and prepare the data for analysis, looking at all the data, coding the data, categories or themes, and interpretation of the data. In this study, the data was analyzed by using

a thematic data analysis technique which is a categorical aggregation form of qualitative case analysis and representation. The researcher followed the following steps; collecting data fully in Amharic and audiotape, transcribed data into written form in verbatim copy with words of the participants, translated in to English, looking for patterns and coding of the data, generalizing the themes. Finally, the categorized and coded data analysed with the issue under the study and with related literatures so as to reach to the accounts or the yields of the research by developing naturalistic generalizations from the data. The data categorized into 6 major themes, 6 themes and 33 sub themes.

3.8. Trust worthiness and Data Quality Assurance

Many qualitative researchers agree that data trustworthiness, whether collected from direct observations, focus groups, or interviews, is evidenced by transferability, dependability, confirm ability and credibility (Lincoln & Guba, 1985). According to Suter (2012) transferability refers to evidence supporting findings to other contexts—across different participants, groups, situations, and so forth and dependability is the claim that similar findings would be obtained if the study were repeated where as confirm ability refers to objectivity (neutrality) and the control of researcher bias, and credibility refers to the believability of the findings and is enhanced by evidence such as confirming evaluation of conclusions by research participants, convergence of multiple sources of evidence, control of unwanted influences, and theoretical fit. Qualitative researchers also agree on strategies and procedures that promote trustworthiness. Merriam (2009) illustrate the following strategies; triangulation, member checks, peer review, or consultation with experts, detailed record of data collection and rationale for important decisions, and providing rich detail of the context of the study. In this study, transferability, dependability, confirmability, and credibility ensured by the following

strategies. Spending long time in the field, triangulation (using different data sources), reframing question (asking the same question in different way) in different situation, following structural coherence during analysis, peer examination (using an external reviewer) or presenting the final report for friends who have the knowledge.

3.9. Ethical Consideration

Halai (2006) identified informed consent, confidentiality, anonymity of research participants beneficence or no harm to participants and reciprocity as ethical principles of qualitative research that appear across the ethical codes of research institutions and associations. Ethical issues are crucial to adhere and protect participants during the research process. In this study, these research ethics were considered at the beginning of the study, during the data collection, data analysis, reporting, and storing the data. Participation of participants was strictly voluntary and they were fully informed to the purpose of the study. Following verbal description of the aim of the research, the participants has given consent form for signing. As a result, informed consent was applied in all participants from the beginning up to the end of the study. The ethical considerations are also aimed at preserving participants' right to self-determination and the right to be respected. Research Participants were also informed about the information that they provide would be kept confidentially and not disclosed to anyone else. To this end, some information which might directly or indirectly implied the personality of participants would not be documented. At the beginning, the researcher secured an official letter from the School of Social Work that to approach different offices, community leaders and to get their assistance. Participants were informed about the purpose of the study, their roles and benefits of participating in the study.

CHAPTER FOUR: FINDINGS

The main aim of this study is to explore the life situation of women who are living with podoconiosis by using them as a unit of analysis and knowing their perceived reasons, copying strategies, economic, social and physical challenges related to podoconiosis. In order to explore and understand the challenges of podoconiosis on infected women's life, data gathered from FGDs and Key informants.

4.1. Back Ground of the Study Participants.

To achieve the objective, the researcher used five women who are living with podoconiosis as the study participants, four health experts as key informants, six women and six men neighbors for focus group discussion

The demographic description of the participants includes the age, place of birth, religious background, marital status, number of children, education status, previous and current residential area, source of income, and previous and current work engagement. The detailed profile of each infected participant is described as follows:

Abebech is 32 years old, illiterate, unmarried woman, living in yechereqa kebele, follows orthodox Christian faith. She was born in Yechereqa and has two sons. She recognized the disease at the age of 15 and lived with the disease for 15 years, and the cause of the disease is walking on bare foot. She took different medicine two times to get cure but she couldn't. When her father and mother get divorced, she went to Addis Ababa, and working as house servant. She was living together with the employer like family members and then after, she came to Yechereqa. Since she couldn't harvest her land by herself because of the disease, she made contractual agreement with the individual who have the capacity to cultivate the land, and

administered the crop that she received annually. She is not much happy and worried more; just she tried to lead simple life. She is not receiving the same amount of crops in each year. As a result, she stated the difficulty to estimate the average income because of the fluctuation of the crops (Interview February 4, 2019).

Almaz is 65 years old woman, born and living in Yechereqa. She is illiterate, Christian orthodox follower and lost her husband immediately after marriage. She has one grandson and living together with him. She recognized the disease when she was at the age of 25 and lived with podoconiosis for 40 years. The cause of the disease was exposed to sunlight and hard work. She is using insect flit and Dama Keseye to get cure. Her previous work was farming, but now she has no the capacity to do that rather she made contractual agreement with the one who are able to do. The amount of crop that she received is different in each year. In a good situation, she got up to 3 kuntal maize. But, according to her saying, maize is nothing (Interview February 4, 2019).

Genet is 38 years old and was born in yechereqa Kebele. She is illiterate, Orthodox Christian follower, married woman and has 3 daughters. She recognized the disease at the age of 18 and lived with the disease for 20 years. The cause of the disease was being bare foot and she used medicine to get cure. Her source of income is selling local alcohol called ‘Areke” (Interview February 5, 2019).

Semegn is 60 years old and was born in yechereqa. She is unmarried and having three children, illiterate and Orthodox Christian follower. Now, she has been living in yecherqa alone both in previous and now. She recognized the disease at the age of 30 and lived with the disease for 30 years and the cause was exposed to sunstroke. She is using hot water to get cure. She has

small amount of land and made contractual agreement with the one who is able to produce crop. She got 2 kuntal of maize per year (Interview February 5, 2019).

Alemitu was born in Talian Mia Gebrieal Quarit woreda, which is adjacent to yechereqa kebele. She is 65 years old and her religion is Orthodox Christian. She lost her husband before many years; she didn't remember when he died. She has four females and one male grandchild respectively and six family members lived in one roof. Even if she learnt basic education, she couldn't write and read. She has been living in yechereqa for 40 years and rearing her sister and brother orphan children. She recognized the disease at the age of 24 and lived with the disease for 41 years, and the cause of the disease was fresh funeral site. She was taking different medicine,and traditional medicine called Yebab Alega. Since she couldn't harvest her land by herself because of the disease, she made contractual agreement with the individual who have the capacity to cultivate the land (Interview February 6, 2019).

Table 1: Socio demographic characteristic of infectedparticipants

No	Pseudonyms	Age	Sex	Educational Level	Place of birth	Marital Status	Occupation	Religion
1	Abebech	32	F	Illiterate	yechereqa	Unmarried	No occupation	Orthodox
2	Almaz	65	F	Illiterate	yechereqa	Widow	No occupation	Orthodox
3	Genet	38	F	Illiterate	yechereqa	Married	Selling local beer (poor)	Orthodox
4	Semegn	60	F	Illiterate	yechereqa	Widow	No occupation	Orthodox
5	Alemitu	65	F	Illiterate	Other place	Divorced	No occupation	Orthodox

Concerning to the background of the FGD, there were two FGD groups; one was men FGD discussants and the other was women FGD discussants. The men FGD discussants are: Belete, Ayele, Abebe, Wondimu,Bamlaku and Abebaw. Belete is grade twelve complete, Ayele and Abebe learnt up to grade four and the other discussantsWondimu, Bamlaku and Abebaw areliterate by the basic education in the dreg regime. All discussants of men are married farmers and orthodox Christian followers. Their age ranges from 37 to 60 years.

Table 2: Socio demographic characteristic of men FGD discussants

No	pseudonyms	Age	Sex	Educational Level	Place of birth	Marital Status	occupation	Religion
1	Belete	37	M	Grade 12	Other place	Married	Farmer	Orthodox
2	Ayele	41	M	Grade 4	Yechereqa	Married	Farmer	Orthodox
3	Abebe	40	M	Grade 4	Yechereqa	Married	Farmer	Orthodox
4	Wondimu	60	M	Literate	Yechereqa	Married	Farmer	Orthodox
5	Bamlaku	50	M	Literate	Yechereqa	Married	Farmer	Orthodox
6	Abebaw	48	M	Literate	Yechereqa	Married	Farmer	Orthodox

The second FGD consists of female discussants. Similar to the first group, the second FGD incorporated six discussants. With regard to their educational status Zewoditu, Demekech, Tiru and Embete are illiterate. Ayalenesh is grade five and selam is literate by attending basic education. All discussants are married farmers and orthodox Christian follower. Their age ranges from 26 to 50 years. The following table shows the demographic characteristic of women FGD discussants.

Table 3: Socio demographic characteristic of women FGD discussants

No	pseudonyms	Age	Sex	Educational Level	Place of birth	Marital Status	occupation	Religion
1	Zewoditu	33	F	illiterate	Other place	Married	farmer	Orthodox
2	Demekech	40	F	illiterate	Yechereqa	Married	farmer	Orthodox
3	Tiru	32	F	illiterate	Yechereqa	Married	farmer	Orthodox
4	Embete	50	F	Illiterate	Yechereqa	Married	farmer	Orthodox
5	Ayalenesh	26	F	Grade 5	Yechereqa	Married	farmer	Orthodox
6	selam	38	F	literate	Yechereqa	Married	farmer	Orthodox

The key informants back ground profile also includes their sex, age, educational status, and work experience. From the four key informants, 3 of them are male and 1 is female.The age ranges from the lowest 28 to the highest 35 years and all are followers of Ethiopian Orthodox Christianity faith. Concerning to educational level, Kidest is diploma holder and health extension worker and the rest key informant Yosef, Biniam and Tsegaye have a BA degree in clinical nurse, two of them health officer respectively and works in mothers' and children vaccination.Kidest and Yosef,are single, and Biniam and Tsegaye are married. Regarding to work experience, the minimum work experience is four and the maximum is eleven years. Three of the key informants worked for four to eight years in various organizations with the exception of one key informant worked for eleven years. Now,Biniam and Tsegaye have been working in demebecha woreda health station while the other Kidest and Yosef works in Yechereqa health station.

Table 4: Socio demographic characteristic of key informants

No	pseudonyms	Age	Sex	Educational Level	Work experience	Marital Status	Occupation	Religion
1	Kidest	30	F	diploma	11	Single	Government employer	Orthodox
2	Yosef	28	M	degree	4	Single	Government employer	Orthodox
3	Biniam	35	M	degree	7	Married	Government employer	Orthodox
4	Tsegaye	31	M	degree	8	Married	Gov't employer	Orthodox

The researcher also observed the physical appearance of the women who are living with podoconiosis, infrastructures like health station, water access and topography of the living area. Both legs of all infected participants of the study had swelled and among them Abebech, Almazand , Alemitu are severely affected by the disease; their legs have fracture, fester and faced difficulties to move. The infrastructure and the physical environment are difficult to go to both Dembecha and Yechereqa health station for rural women who are living with podoconiosis due to lack of infrastructure and transportation cost. There is no also enough medication in the health station. The researcher also observed that, there were some community members who walked on barefoot. The house arrangements of the infected participants are not constructed in a good manner and it could not protect them from sunlight and rain. From their tone of speech, feeling, gesture, and facial expression, the participants seem hopeless.

4.2. Recognizing Podoconiosis as a Disease

Participants, discussants and key informants were asked about theknowledgeofnature, recognizing and aggravating factors for podoconiosis. As the in depth interview data show, participants and discussants didn't know the nature of podoconiosis and women living with podoconiosis started living with the disease at their adult stage. Most of them associate the aggravating factor with being barefoot and exposed to sunlight. Even key informants have different perception about the disease.

4.2.1. About Knowledge of Podoconiosis

Podoconiosis is one of public health problem that affects people living and working on barefoot in red clay soil. In this regard participants were asked what their perception about the disease. As per the idea obtained from participant, they didn't know what podoconiosis is rather they knew the swelling and the pain. Abebech told to the researcher the following:

"I didn't know the swelling either it is podoconiosis or not, but I feel pain on my leg because of the swelling". The other participants Almaz, Genet and Alemitu have similar understanding about nature of podoconiosis.

Women FGD discussant Zewoditu has a similar understanding about the podoconiosis and she didn't know what the disease is. She shared the idea of participant Abebech,, Almaz,, Genet and said "I didn't know what the disease is and where it came from, but, now days, I thought that from 10 persons, one person is affected by this disease."

The data obtained from men FGD discussant indicated that, there is no clear understanding about the disease even if there is explanation about the type and the problem of podoconiosis. Belete said:

> There are two types of podoconiosis disease. The first one is the simple and the characteristics of the wound is less but has a swelling, but the second one is the extent of swelling is less, and has sever wound and painful. It is difficult to resist the disease and deform the leg. It highly affects the farmers who are living on the area of red clay soils.

Key informant Kidest, describe podoconiosis as leg swelling disease that is not recognized by the community members which is highly affect women. Accordingly, she said,

> Podoconiosis is a leg swelling disease that affects persons that doesn't have wear shoes and caused the leg to swell in two ways; from the knee up toes and the swelling that enclose around the toes. The prevalence of the disease more prevail on women and the community still not aware about the disease especially in related to keeping their personal hygiene, the cause and problem of the disease.

On the other hand, key informant Yosef described the disease in related to parasite which is called Wuchereria bancrofti. He said, "Podoconiosis is parasite disease and attacks limphnodes and has bilateral swelling below the knee and not transferred from person to person". He also indicated that the disease was more prevail on person who is walking on barefoot. On the same manner, key informant Biniam has similar knowledge with Yosef about the podoconiosis and added that the disease prevailed on people who are living on the red clay soil and not wear shoe that directly make contact with the soil. The last key informant Tsegaye narrates the nature and the complexity of the disease as follow:

> In the first place, podoconiosis makes the veins dilated. When the veins dilated the blood which follows into the leg or the bottom didn't back to the heart, again

when the veins became wide, the contractiveness decreased and elasticity increased, the blood accumulated in the bottom of the leg.

4.2.2. About Knowledge of Aggravating Factors

The pain of podoconiosis aggravated when patients became barefoot, make long walk and hard work. As Abebech explained, this disease is aggravated when she make long walk and engage in hard work. Similarly, Almaz added thatexpose to sunlight and increase of age as an aggravating factor for podoconiosis. She said, "The disease became severe when my age increased and exposed to sunlight. In the initial stage, the wound was not much painful and it was not making me abstaining from work". On the other hand, Alemitu mentioned that exposed to sunstroke and walking on barefoot as an aggravated factor for the disease. She said, "When I exposed to sunstroke, my leg swelled, became huge, and the pain became severe. When I walked on barefoot, wound developed on my leg and creates fracture." Also, men discussant Wondimu indicated that drinking alcohol aggravated and increased the swelling. He said,"The swelling of the disease increased when the person drunk alcohol like Tela because alcohol increase the blood pressure and blood circulation". Key informant Biniam mentioned improper personal hygiene as an aggravating condition of podoconiosis. He stated, "Improper personal hygiene keeping and wearing style aggravate the disease".

4.2.3. Recognizing and Living with the Disease

Some participants recognize the infection and pain of their podoconiosis at their childhood stage and at least lived with the disease for 15 years, and others knowing this disease at their adult hood.Abebech explained that she recognized at the age of 15 and lived with the disease for 15 years. Almaz, Genet, Semegn , Alemitu recognized the disease at the age of 25,18, 30, 24 and lived with podoconiosis for 40,20, 30, 41 years respectively.

4.3. Perceived Reason of Podoconiosis

Concerning to the causes of podoconiosis participants, discussants and key informants were asked their perception about the cause of the disease. As the data revealed, they associated the cause with walking on bare foot, action of witch craft, ritual activities, fresh funeral soil, genetics, mosquito, red clay soil, super natural order and sharing shoes.

4.3.1. Walking on Bare Foot

The participants of this study stated their perception about the causes of podoconiosis. As it was stated by Abebech,podoconiosis iscaused by walking on bare foot. She said, **"**When I was 15 years of age, I was collecting woods in a forest on bare foot because rural people not wear shoes and I assumed the cause of the disease is being barefoot"on the same way, Genet has similar perception about the cause of podoconiosis.

4.3.2. Action of Witch Craft

Participants and discussant associated the cause of podoconiosis with action of witch crafts.Almaz mentioned that the cause was "*muwaret* " which means a magic thing made from different root and fruits, and prepared by magicians and traditional healers. She explained the situation as follow:

> The cause is related to magic. Somebody left lemon and other things on the road. When I was walking, I touched it. I touched it with my right leg but my left leg swelled. This is "muwaret" that caused my leg swelled. This 'muwaret" made from different roots.

Al most all women FGD discussants have agreed on the fact that the disease is caused by touching a magic thing or "muwaret" which is similar to Almaz. Women discussants Zewoditu staid:

> The disease is caused by touching "muwaret" which means touching lemon, eggs, over flow blood on land during walking on bare foot. This "muwaret" is prepared by magicians. Women who are living with podoconiosis touched this magic especially in the morning while they were walking here and there on bare foot, and become victim of the disease.

Women discussant Demekech, Tiru and Embete agreed on the above woman discussant Zewoditu idea concerning to the cause of the podoconiosis.

4.3.3. Ritual Activities

Participants also relate the cause of podoconiosis with special occasion and holidays ceremonial activities. Genet relates the cause of the disease with eating goat meat and touching the blood at the time of Eastern holyday. She told to the researcher the following:

"This swelling happed on me because of eating goat meat. During Eastern holiday, my father slaughtered goat and I ate that meat, and my leg swelled because I ate the holiday's goat meat and touched the blood".

4.3.4. Fresh Funeral Soil

Other Participants have also different perception and association the cause of the disease. Alemitu relates the cause of her podoconiosis with fresh funeral site soil. She stated the following:

> The cause of the disease was the death of my sister's son. I buried him on Monday. On the next day Tuesday, I stayed on the fresh funeral site soil. On the next day, Wednesday, my leg swelled. So, in my belief the cause of the disease is that fresh funeral site soil.

4.3.5. Genetics

The perception about the cause of podoconiosis also related with heredity and genetics. Men discussant Belete stated the perception about the cause of podoconiosis with genetics and generational line effect in the following way:

> When I observed the characteristics of the disease, it is related with genetics and has generational line. For example, my mother, her father and her father brother had podoconiosis. I also saw the disease on one of my mother's cousins. Similarly, the disease happened on my mother's brother son, even on the grandchild of my mother's brother. Such situations show the disease has generational line.

Key informant Tsegaye also further explained the perception and the beliefs of the community members as genetics the cause to podoconiosis and the impacts on the medication. He said,

> The community members believed that the disease is caused by genetics and sunstroke. For example if the person's leg is swelled, there is belief that his/her relative's leg will swelled. These beliefs in turn make the patient not to come to health centers and the disease become worse, because the belief of genetics factor as the cause.

4.3.6. Mosquito

The cause of podoconiosis also associated with mosquito. Men discussants and key informants have the perception that mosquito could bring podoconiosis. Men discussant Ayele relates the cause of podoconiosis with mosquito and transferability of the disease from one person to the other. He said,

> I thought that the disease is caused by mosquito and there is the possibility of transferability of the disease from one person to another during at night. If the normal person sleeps with the person who has the disease, the disease simply transferred to others.

Key informant Tsegaye also explained that podoconiosis is caused by mosquito especially on the area of red clay soil. He said,

> Podoconiosis is caused by mosquito and especially commonly affects persons who are living on the area of red clay soil and aggravated by knowledge gap to know what the disease is. The mosquito that cause for podoconiosis gets its food from human blood, that is why it affect human.

4.3.7. Red Clay Soil

The important perception about the cause of podoconiosis is red clay soil. Men discussant Abebe relates the cause with red clay soil and the prevalent of the disease is high in hot areas. He explained the following:

> The prevalent of this disease is high in hot areas rather than cold areas. If you go far from this area, the area is so hot and most people almost all are affected by this disease. I think the cause is the soil and may be the area is breading ground of mosquito that brings the disease. Red clay soil aggravates the disease. Black soil

> makes the disease soft but that of red clay soil cuts the leg and creates fracture that is why it aggravates the disease. In hot area in which black soil exist, persons who are living with podoconiosis, even if they have wound, it is soft.

Key informant Tsegaye also added that podoconiosis is environmental, hot and red clay soil in which mosquito breeds is favorable for the disease.

4.3.8. Super Natural Order

Key informants also stated the perception and beliefs of the community members that podoconiosisas related with super natural order. Key informant Yosef also said, "The community members believed and linked the cause of podoconiosis with order of God, as a result of this the patient didn't came to the health station." Similarly, key informant Biniam reported that the belief of the community members as the disease is the result of super natural order and naturally given

4.3.9. Sharing Shoes

Sharing of shoes as the cause of podoconiosis was raised by key informants. Key informant Tsegaye explained the possibility of transferability by sharing of shoes among family members. He said,

> If there is an individual in a specific family that is affected by podoconiosis and there is only one pair of shoes, and there is sharing of that shoe. For example, if the child wears his father's shoes or a daughter wears the mother's shoes, there is contact and transfer of the disease. Because of this sharing of shoes and contact, the disease is simply transferred from person to person.

As the data revealed, walking on bare foot, action of witch craft called *"muwaret",* eating goat meat and touching the blood at the time of Eastern holyday, staying at fresh funeral site,

problem of personal hygiene, genetics, mosquito, red clay soil, lived in hot areas are the perceived reasons of podoconiosis about the cause. From the above data, it is possible to conclude that the cause of podoconiosis is not well understood because some participants, discussants and key informant statement have no scientific evidence about the cause of the disease.

4.4. Challenges of Podoconiosis

Women who are living with podoconiosis faced economic, social and physical challenges. Participants, FGD discussants and key informants of this study were asked about the challenges related to the disease. They stated the economic, social and physical challenges of the disease. Each challenge is interrelated and their effect is vicious circle. The physical challenge of podoconiosis like deformity became the cause for social challenge (bring social discrimination) and the social challenge become the cause for economic discrimination (excluded from job and group work) and economic discrimination leads to psychological problem and unable to medication.

4.4.1. Economic Challenge of Podoconiosis

The economic challenge of women living with podoconiosis related with difficulty in work engagement, engaging in risky economic activity or forced to change work engagement from productive to unproductive activities, being dependant on others, losing productivity, self-exclusion from economic activities, low standard of living.

4.4.1. 1. Difficulty of Work Engagement

Participants and FGD discussants of women explained the economic challenges of women living with podoconiosis. The main challenge is difficult to do work. Abebech

explained how the disease affects her economic life and the challenges that she faced. She stated to the researcher as follow:

> If I did mixing house mud, weeding, hoeing maize and house painting, the disease became worse and I became ill. It is difficult to do work. I have land that I inherited from my father and served as a source of income but even I couldn't work together with others outside of home. My farming area not far from here but I could do nothing rather I made contractual agreement by representation with the one who can cultivate the land.

Semegn also explained that she want to do farming but she unable to do that because of the disease rather she made contractual agreement. "I want to lead my life by farming but I couldn't do that as the result of this disease". Alemitu also explained the economic challenge of podoconiosis in similar to the above participants that she is doing nothing because of the disease. She has land and made contractual agreement with the one that can produce crop. She said,

> In the previous, I was working farming but now, I am doing nothing because of the disease. I made contractual agreement with the one that can produce crop. I have no monthly income, but annually I got 3 kuntals from the contractual agreement person. I am not healthy. When the disease became sever, I slept a number of days and not going out of my home and work. I am not going to farming activities like weeding and hoeing.

FGD discussant of women shared the idea of Abebech that the challenge of podoconiosis on economy related to unable to work. Accordingly, women discussant Demekech said,

> In the rainy season especially on the month of May during maize weeding and hoeing, women who are living with this disease tried to work their land, and they exposed to fresh soil. During this time, the disease became severe and creates wound. They became ill and stayed at home. As a result, when the rainy season comes in, they couldn't go to work. They couldn't move here and there. They are not engaged in hard work and couldn't eat what they want; they couldn't wear what they want, because they couldn't work.

4.4.1. 2. Being Dependant on Others

The other challenges of podoconiosis are being a factor for dependency. Participants and key informants indicated that the disease makes dependent on others. Almaz, explained that she couldn't work rather she is supported by others because of the disease. She said, "I am very tired and couldn't work because of this disease. One of my grandchildren lived with me and others harvesting the land, and supports me." Similarly, key informant Biniam, explained the economic challenge of podoconiosis in similar manner that podoconiosis can be the cause for dependency. He explained,

> Patients of this disease become dependent on others when we compare to others, because patients of this disease couldn't engage in any source of money as they want. When we see the patients comparatively with other, the normal person can do the regular work throughout the day, but the patients cannot do this.

4.4.1.3. Engaging in Risky Economic Activity or Forced to Change Work Engagement

The participants and key informants explained that women who are living with the disease either engaged in risky economic activity or forced to change their work engagement. Genet explained that she was forced to change her work engagement from making local alcohol

"Arkie" to local alcohol "Tela" because of the disease. She said, "In the previous, I was making local alcohol Arkie, but now, because of this disease, I stopped that and focused on local alcohol Tela".

Also, key informant Kidest explained the economic challenge and situation of women who are living with podoconiosis in similar manner and added the special risky economic activity engagement. According to Kidest,women who are living with podoconiosis are not fully engaged in farming and different income sources like that of the normal person rather they are engaged in commercial sex work, sell local beer like Arkie and Tela. She elaborated the situation, miserable life and vicious circle problem of the disease in the following way:

> During the rainy season, some unable to wear shoes, some couldn't work without shoes, and some need huge shoes. In case if their leg make contact with the soil, the disease aggravated. When women who are living with this disease exposed to sunstroke, they become ill. As a result, they slept for days. In related to this situation, they become destitute from the rest of other community members and engaged in commercial sex work, and sell local beer like 'Arkie' and 'Tela'. Besides, women living with podoconiosis roast maize to make Tela of other community members and earn small amount of money. In related to that they exposed to sunstroke and their sickness aggravated again. They slept again and they went to health station to get treatment, and paid what they earn in daily work.

4.4.1.4. Losing productivity

Podoconiosis reduces capacities and abilities to carry out regular activities, as a result being productive minimized. Men FGD discussant Wondimu explained the challenge of the disease in related to losing productivity**.** He said**,**

> Because of this disease, women who are living with the disease lost their productivity; the capacity of doing regular activity reduced, they are always suffered by the disease. There are also individuals who couldn't work as the result of the disease. They have nothing and lead miserable life because they lost their productivity.

4.4.1.5. Self Exclusion from Economic Activities

Podoconiosis has open and hidden effect on infected persons. As result, women living with podoconiosis sometimes make self-exclusion even their economic activities. Key informant Yosef elaborated a case of a woman who was working in Yechereqa health station staff café that exclude herself from economic activities because of the smell of the disease. He said,

> In terms of economy, women who are living with podoconiosis are not capable to do work. They exclude themselves in their own reasons from some economic activities. As example, there is a woman who is living with podoconiosis and we have mothers' cafe in our health station. We employed her in this café but she didn't keep her hygiene properly; as a result, her leg brought smell. After sometime, users and costumers of the cafe decreased. The customers dislike using the food items which is prepared by this woman. At the end of the day, she resigned her job without any influence from others.

4.4.1.6. Low Standard of Living

Key informant Tsegaye, stated that women who are living with podoconiosis couldn't match economically with the rest of the community members and unable to get job even being house servant because of the perception of the communities that the disease is as transferable. He said,

Women who are living with this disease are not match economically with the other persons. Sometimes, the swelling of the leg become huge, and they unable to get job even being house servant. Community members think that the disease will transfer from women who are living with the disease to children of the community members. Besides, women who are living with this disease are not able to do any source of money to lead their life. As a result, they lead lower living style.

During the interviewing session, the researcher also observed that poorly wearing style that can manifests the poverty of women who are living with podoconiosis like old enough clothes and shoes which couldn't protect them from chill and cover their body.

As the above data indicated, difficult to do work, slept a number of days at home, forced to change work engagement, engaged in commercial sex work, exclusion from economic activities, sharing own crops to the one that can able to cultivate the land, being dependent on others are the economic challenge of podoconiosis. As a result, women living with podoconiosis lost their productivity and couldn't fulfill their basic need.

4.4.2. Social Challenge of Podoconiosis

Women living with podoconiosis faced and suffered by the social challenges. Social exclusion, marital dissolution, loneliness and psychological challenges, being sexual partner, divorce and forced to marry podoconiosis affected persons are some of the social challenges of women living with podoconiosis.

4.4.2.1. Social Exclusion

As men discussant and key informants explained, when the severity of podoconiosis increased, the level of social exclusion of women living with the disease increased. Men discussant Ayele explained the conditions as:

> There are women who are living with the disease that can do their regular work and not suffered much, and the disease not reduces their capacity and has social life with the rest of the community members. On the other hand, there are women who are severely affected by the disease. The wound is so sever and the pain is high. Such podoconiosis women are excluded from social life and they couldn't establish family

Similarly, men discussant Wondimu stated how the person discriminated from social life including eating together. According to him social exclusion happened when the disease became sever. He explained the situation as:

> In related to eating and drinking together, there are individuals who are affected by the disease, and the wound creates some type liquid like fester. In such situation women who have the case, has bad smell and difficult even to sit near to her. Even if we sit near to her to eat together, we do not feel good, because there is fester and the woman touches the wound every time because of the itching nature of the disease. Additionally, we are not happy when we saw her while she is remove her shoes and washing the wound. During this time, the woman is living with the disease also reads facial expressions and excludes herself. We also exclude and abstain to contact with such woman. We are not going to sit with her and she also excluded from social life like Idir.

Key informants also stated the social exclusion of women who are living with podoconiosis. Key informant Kidest explained the conditions of social exclusion in related to the disease and the belief of community members including herself that by believing, the disease can transfer from one person to another by contact, and women who are living with the disease discriminated and excluded from social life in different association and religion sites like church as the result of unpleasant odor of the disease. She said,

> There is a condition of exclusion and discrimination of women living with podoconiosis. Some community members believe that the disease can transfer from one person to another by contact and didn't sit with the women who are affected by the disease. Even, I did myself and I was doing that, because it has unpleasant odor. Women who are living with the disease discriminated and excluded from social life in different association and religion sites like church as the result of unpleasant odor of the disease.

She also added how the community members discriminate the women who are living with the disease as "The community members not express the feeling about the disease and the odor to the women who are living with the disease. At this time, the community members dislike sitting near to women who are living the disease". As she stated, women who are living with podoconiosis excluded and discriminated more than persons with HIV. She said,

> When the disease is severe and if there is problem of hygiene, exclusion comes because there is odor. There is also distinct exclusion. Women who are living with this disease discriminated more than persons with HIV excluded and discriminated. The community members and even women who are living with the disease know these conditions.

Key informant Biniam also strengthened Kidest by adding belief that the disease can transmit from one person to others by odor of the wound. He said,

> In terms of social life, women who are living with this disease are excluded and discriminated by the community member due to the belief that the disease can transmit from one person to others by odor of the wound itself. As a result, community members didn't want to have social life as like that of other community members.

Key informant Tsegaye alsostated the discrimination and exclusion of women who are living with the disease due to the severity of the disease. "There is discrimination and exclusion especially if the disease has festered. Women with the disease are socially excluded; they couldn't participate in different social events like 'senbete', and other associations."

4.4.2. 2. Marital Plan Dissolution

Men discussants and key informants also stated the impact of podoconiosisis on women's living with podoconiosis marital life. Men discussant Abebe mentioned the special influence of podoconiosis on women's marriage plan by comparing the problem with men who have the disease. He said,

> The disease has special influence on women related to marriage. The disease reduces their beauty. If the leg of the women swelled, she would not be selected and asked for a wife even if she can do work and has economic source.On the other hand, if the man living with podoconiosis has some type of economic source and can do work, the impact of the disease in related to marriage not much because he can ask and search a wife. But, woman cannot do that because of influence of culture. The culture not allowed the women to ask and search husband. On the

other hand, podoconiosis is barrier for women living with the disease not to be asked for a wife.

Key informant Biniam also mentioned the challenge of women who are living with the disease to get husband as:

> In related to marriage, the criteria of man for selecting a wife include the appearance of women's leg. As a result, women who are living with this disease didn't selected by the man. The disease reduces the level of women's appearance.

4.4.2. 3.Psychological Challenges

Participants and key informants explained the psychological challenges of women living with podoconiosis as a result of loneliness in addition to other problems. Semegn faced psychological challenges as a result her loneliness due to the disease and absence of relative as well. She said, "I am alone and felt loneliness because of this disease. Now, I am injured psychologically." Similarly, Alemitu faced with loneliness. Key informant Yosef also explained the psychological challenge of women who are living with podocniosis in related to marriage and psychological challenge of the disease. "In related to marriage, most women who are living with this disease didn't marry. They are alone and being alone by itself has psychological problem". Besides, key informant Tsegaye explained the psychological problem of the disease as,

> The disease makes to loss their capacity after marriage and women who are living with this disease become hopeless, not to be productive and they also thought that they unable to get cure by treatment. According to their understanding, their fate is already determined, have no life after this because the disease has no medication, they think that they couldn't get husband.

4.4.2. 4. Being Sexual Partner

Participants and women discussants explained the challenges of being sexual partner and the reasons why women living with podoconiosis accept the request of man for being sexual partner. Abebech not married and have two sons from her sexual partner. She provided care and support to the sons alone but the father not, even he didn't visit his sons because of the swelling make him shameful. She told to the researcher the following:

> I am not married because of this disease, but I have two sons from my sexual partner. I provided support and care to my children alone. Their father didn't visit and support them even he didn't see them because of my swelling make him shameful. When my elder son asked me about his father, I said that your father died. But, even if there is no his support, I planned to grow my sons alone because to avoid my loneliness even if, I am not in a good situation.

Women discussant Zewoditu explained the following why men make sexual partner of women who are living with the disease. "Mostly men don't marry a woman who is living with podoconiosis rather they make these women sexual partner by considering the resources of the woman like land". Women discussant Tiru indicated that women who are living with podoconiosis delivered child from their sexual partner to relive from loneliness. She said, "Women who are affected by this disease are lonely and they want to relieve from this loneliness. Since, engaging marriage is difficult for them, and as a result, they make sexual partner and give birth". The other reason why the women make sexual partner and not marry is related to the interest of the women who are living with the disease themselves. Women discussant Embete said, "When the men asked them to deliver children, the women accept their request rather than refusing". Women discussant Ayalenesh also stated that women who are

living with the disease make sexual partner because they unable to get husband and to protect their property. She said the following:

> Women who are living with podoconiosis decided to have sexual partner because they thought that as they have no capacity and unable to get husband. They also want to have children in order to protect their land and other resources, to avoid loneliness. As result, the women decided to have children so that have sexual partners.

4.4.2.5. Divorce

Participants and discussants also stated that podoconiosis can be the cause of divorce. Alemitu explained that she divorced more than three times because of the swelling of her leg. She said, "Now, I have no husband, I married more than 3 times and divorced them due to my swelling. According to men discussant divorce increased as the level of severity of the disease increased. Men discussant Belete said, "When the severity of the disease increased, the victim divorce from their husband or wives increased because they unable to support their family by work, their beauties also decrease, and they can't engage in marriage."Men discussant Abebaw also mentioned podoconiosis as a cause of divorce due to man wants to marry healthy woman.

4.4.2. 6. Selecting Podoconiosis Affected Person for Marriage

Key informants also explained the challenge of podoconiosis for marital selection of women living with podoconiosis. As key informant Tsegaye indicated women who are living with the disease select a man who has similar case because of the social exclusion. He said, "Since some community members relate the disease with genetics and in such community women who are living with this disease search persons who have similar case to establish a family".

4.4.3. Physical Challenge of Podoconiosis

In related to physical challenge, women living with podoconiosis faced the challenges of mobility, wound development, physical deformity and change of appearance.

4.4.3.1. Mobility Problem.

As participant and women discussants explained, women living with podoconiosis suffered with unable to walk and couldn't move. Abebech stated the physical challenge of podoconiosis in related to problem of mobility. She explained that, "The severity of podoconiosis is so painful and I unable to walk. Almaz, has similar case that she couldn't move. Women discussants also shared and have the same idea about the physical challenge of podoconiosis. Women discussant Zewoditu said, **"**Women living with podoconiosis faced the problem of inability to move. They couldn't move here and there".

4.4.3.2. Wound Development

As participants stated, women living with podoconiosis suffered by the development of wound on their leg and creates fracture. Semegn explained the severity of the disease in related to wound and fracture in the following way. **"**When I exposed to sunstroke, my leg swelled, became huge, and the pain is so severe and wound developed and creates fracture. Two of my leg swelled and have fractured especially the left one."

4.4.3.3. Physical Deformity and Change of Appearance

The other problem that women living with podoconiosis faced is deformation of leg and change of appearance**.** Abebech said, "Some time the swelling of my leg became so huge and I couldn't wear shoes even socks". In the same way, Genet explained that the appearance of her leg changed because of the influence of podoconiosis. Similarly, Alemitu added the following,

“when I walked, the disease aggravated. When I expose to sunstroke, the pain became sever even above the knee and the swelling become huge, the face of the skin changed”. Men discussants also shared deformation and change of the appearance because of the disease. Men discussant Ayele said the following.

> The disease is not smooth; rather it is rough, has fracture and change the appearance. There was swelling and difficult even to see. The characteristic of the disease seems characteristics of hemorrhoids. It is difficult to resist the disease and deform the leg.

Key informant Kidest also elaborated the deformation and change of appearance as follow:

> Swelling of the leg by itself is deformation aspect of the problem. There are women who are living with the disease, in addition to their swelling; there is extra swelling that seems breast. In related to this, the swelling has wound, fester, they unable to wear shoes and it seems hemorrhoid. It swelled from the foot up to the junction where the two legs joined and make them to lose their balance or improper type of walking style.

Key informant Tsegay also explained the physical deformation by podoconiosis and the impact on women’s lives that have the case.

> The physical deformation by the disease is worse on women than men. For example, women who are living with the disease faced difficulties and they have no capacity to do their regular activities. Their physical problem also related with their marriage; they unable to move because the swelling has pain, there is also possibility of divorce. Sometimes, women have no chance to get husband because of the swelling and they will be considered as genetically affected persons by

> podoconiosis. There is also discrimination and exclusion especially if the disease has festered; they are considered as physically disabled.

The researcher also observed that women who are living with the disease faced with physical of challenges in related to podoconiosis. There is deformation of leg, unable to move likes that of the normal person change of appearance, and loss of walking balance.

4.5. Challenges of Combating Podoconiosis

The participants, FGD discussants and key informant of this study mentioned their different perspectives about the challenge to combat the disease. The nature of the disease, lack government support and attention, lack of commitment by health care worker and other issues as challenging factor for combating podoconiosis.

4.5.1. Nature of the Disease

4.5.1.1. Unfamiliarity of the Disease

The community members didn't aware the nature of the disease. As a result, farmers that lived in areas have no habit of wearing shoes. Key informant Tsegaye stated that podoconiosis predominantly affects barefoot Dembecha subsistence farmers that lived in areas with red clay soil and residents engaged in agricultural activities with no much habit of wearing shoes.

> Podoconiosis naturally common in areas with red clay soil and affects individuals who have no habit of wearing shoes. Dembecha woreda farmers have no habit of wearing shoes. As a result, they are affected by podoconiosis because they didn't aware the nature of the disease.

4.5.1.2. Non-existence of Medicine

The other challenge of combating podoconiosis as stated by key informants and participants, the disease has no medicine and the non-existence of medicine as challenging factor to combat the disease. Key informant Biniam said, "If the disease is philarisis elephantiasis, there is drug which is taken by mouth but if it is podoconiosisis, there is no medicine given to the patients." Similarly, women FGD discussant Zewoditu strengthening the key informants' idea and noted that the disease has no modern and religious aspect medication. She said, *"*The disease has no medicine and no cure even if women who are living with the disease tried to get cure by modern medicine and holy water*."* On the same way, men FGD discussant Abebe mentioned that podoconiosis has no medicine and challenging to combat. He said, "In science the disease has no medicine. It is confirmed that this disease has no medicine. We didn't know how we combat this disease". Other men discussant Wondimu also added, "The medication which is prescribed by health centers like washing the wound by soap and berkina is good for the external parts to protect germs, but nothing to the internal parts".

4.5.2. Lack of Government Support and Attention

During the in depth interview, Abebech indicated that the less attention of the government and still not intervened to combat the disease makes the disease more challenging rather one private organization provided bidet for washing, shoes and soap once. She said,

> There was special private humanitarian organization that provided bidet for washing, shoes and soap once and then stopped its functions, and it didn't visit us again, didn't come again ever. After that, there is nothing; no one see either the progress or the worse situation. There is no treatment and intervention of the government.

On the same way, Semegn stated that still government not intervened and she has no hope for the support of the government. She said, “I have no trust on the government; I am not expecting anything from the government. Still, government didn’t support me, after this time I will die. I don’t know why the government not supports us”. Key informant Biniam also mentioned that lack of integration and attention from the government officials that means including the issue of podoconosis in the health expert regular activities, allocating financial and material support created challenging situation to combat podoconiosis.

> podoconiosis did not included in the regular activities of health experts by government officials even we have no integration among experts and official concerning to this disease as a result no financial and material support, no monitoring and evaluation of the disease, no research on podoconiosis.

Men discussant Wondimu relates the challenges of combating podoconiosis with luck of provision of medicine and follows up of the government. “Still the government did not provide medicine for the victim of the disease. Our interest is further support and follows up of the government. This is our main challenge to combat the disease”

Key informant Kidest, also explained that women living with podoconiosis has no voice in the local administrator even if women who are living with the disease has great initiation to change their life by engaging in income generation activities. She said,” Women who are living with podoconiosis have great initiation to change their life and they want land for income generation purpose. But, no one responded to their question.”

4.5.3. Lack of Commitment by Health Care Worker

Almaz mentioned that the challenge of combating podoconiosis in related to lack of care and support from the health station and health experts. “I went to yechereqa health station for

medication. I paid money but no support and cure, it is nothing. It is only payment, has no any benefit. No one support us". Other men FGD discussant Ayele also mentioned the effort of one organization to combat the disease and the current failures of health experts as follow:

> At one time there was an organization that supports shoes, soap and berkina. During that time, the health expert was following and monitors the victims. There was some progress of health condition of the victims but now, there are no such activities. As a result, I think another risk will happen; extra new victims by this disease will come, even the existing problem will be worse, number of victims increase, and the disease relapse again because no health worker provide care and support to the women living with this disease.

Key informants also mentioned the challenging situation to combat the disease. Key informant Kidest mentioned since health worker have no commitment and concerned with podoconiosis, we didn't identify and organize the data of women who are living with the disease, and we have no communication with these women. She said,

> Before now, there was an organization that supports the women who are living with podoconiosis, but now stopped. That organization was organizing these vulnerable groups. But now, most of the groups are not exist. The main problem is, the group is disorganized and already dispersed because no health worker support and monitor these groups. I have no information why that organization stopped its functions. Identifying and reorganizing of the group again will be difficult task because we didn't have the commitment, the data and lists of the women; we didn't know their names even if they are many in number. We have no also communication between the women who have the disease and the health worker.

Key informant Kidest also added the lack of commitment and responsibility of the health expert to organize, facilitate condition to have business land, integration and collaboration among the health expert and health office to engage women who are living with the disease in income generation activities like distributing sugar and soap to fulfill their needs.

Key informant Yosef also mentioned lack of data of the patients, health structural problem, policy gaps, and capacity building training as a challenging factor for combating podoconiosis.

> This disease is not our focusing area even if the case is available and we didn't treat it. We have no treatment for patient who came with this case. In related to this disease, there are many problems. We have no data about this disease. Patient came to in our center, it is secondary, and not that much important it is impossible to get cure in modern medication, even if we make refer, there is no injection. Also we have no reporting communication at least monthly, the case not reported. Now, there are women who are living with this disease and lead their life in closed door and alone. We are not visited them, they became voiceless. Still we didn't attend training concerning to podoconiosis, and this disease did not receive attention starting from us because the disease not included the health policy and in our activities.

According to key informant Biniam, lack of commitment among the health worker and not owning of the activities, less confidence of patients not to come purposely for the treatment, sudden work load of health experts as challenging factor to combat the disease. He elaborated the conditions as, "The problem is lack of commitment among the health worker and not owning to the activities, health experts are busy by sudden works."

4.6. Coping Mechanism of Podoconiosis

Participants, key informants and FGD discussants of this study were mentioned care practices of women living with podoconiosis to get cure. As the data revealed, because of the interrelatedness of the problem, there is no specific copying mechanism for podoconiosis for economic, social and physical challenges. As example, the woman living with podoconiosis and faced with physical deformity, suffered with health problem, social discrimination and unable to engage in economic activities. As a result, she used different types of copying mechanism. Some women who are living with podoconiosis used multiple coping methods, others used modern medicine, traditional medicine and the rest used action of witch craft, and wearing traditional long clothes. They commonly shared the idea of keeping personal hygiene, abstain from work and soil contact.

4.6.1. Multiple Coping Method

Some participants explained that women living with podoconiosis have multiple coping methods. Abebech stated that, she was taking modern medicine two times but she didn't get cure rather keeping personal hygiene, abstain from work and soil contact, going to holy water and using "bazline" helps her to cope up and manage podoconiosis.

> I took medicine two times, but the diseases became worse rather than getting cure. I decided to stop the medicine when my leg made fracture and bring bleeding, I washed it with the soap and I used "bazline". Then I got some cure. This is the medication that I got. From my life experience, there is no other medication, no change. I kept my hygiene by myself. Still now, I didn't go to any traditional medication rather I went to holy water. In order to get cure from

> podoconiocisis, I kept my personal hygiene and abstain from work. I don't want to contact with the soil.

On the same manner, Semegn stated that washing her body with hot water, wearing shoes, sleeping and taking more rest are the copying strategy for podoconiosis.

> I washed my body with hot water and I got better. Wearing shoes is good to reduce the extent of the severity of the diseases. When the disease became severe, I took some medication and slept a number of days. When the disease became painful, I washed my leg with hot water and soap. If I am not doing that, my leg swelled and expanded up to above the knee.

FGD discussants of women also explained the coping mechanism of podoconiosis. Women discussant Zewoditu stated that keeping personal hygiene, having toilet, keeping environmental hygiene, wearing shoes, and putting the shoes far from person to avoid odor are the strategy and mechanism of copying podoconiosis. She said the following.

> To prevent the disease, keeping personal hygiene, having toilet, keeping environmental hygiene, wearing shoes are important things to be done. When women who are living with podoconiosis remove their shoes, they shouldn't be in front of the person. Also, if there is odor, they should put the shoes far from person. The other thing is going to holy water. Such activities help to cope up the disease.

Men FGD discussants Abebe also added that to cope up podoconiosis taking care of personal hygiene, selecting comfortable residential area, wearing shoes, washing the wound with hot water and salt by diluting together to reduce the pain, taking care during removing the shoes, helps to cope up the disease. He explained the following statement to the researcher.

> Women who are living with this disease did not want to take modern medication rather they washed the wound with hot salt diluting water and reduce the pain. They got temporarily healing. To prevent and cope up the disease, taking care like personal hygiene, selecting comfortable residential area, wearing shoes, and taking care during shoes removing, and preventing sunstroke are important things to be done.

The key informants also added other type of copying mechanism of podoconiosis. Key informant Kidest explained that covering the swelled leg by clothe while sitting in front of somebody and not to be said swelled leg are the strategies which are practiced by women who are living with the disease.

4.6.2. Using Modern Medicine

Participants also stated that women living with podoconiosis used modern medication and got cure**.** Genet mentioned that she went to the health station for medication to get cure. "I am going to health station for medication in related to this disease. I was getting cure after washing the wound by the medicine". Also Almaz used insecticide for her the wound.

4.6. 3. Using Traditional Medicine and Plants

Participan**t**s also told to the researcher that using 'Dama Kesye' type of plant found in rural area is mechanisms of coping for podoconiosis. Almaz narrated the mechanism of copying and management practice as follow.

> When podoconiosis become sever, I used Dama Keseye and I put it on hot water and washed my body. When I put Dama Keseye on hot water, there is

> evaporation and I used that as stem bath. This makes me better feeling and cure. I have no other medication. Dama Kesye is essential medicine for me.

Also Alemitu was used different plants like ‘snake poison’ and different leaves, ‘Yebab Alega’ a type of plant that traditional healers knew it, as copying mechanism of podoconiosis. She said,

> I took different medicine for treatment. I was used snake poison and different leaves to get cure. There were traditional healers that know the leaves. Traditional healers told me ‘Yebab Alega’ was good for the disease. As a result, I was chewing its roots, cut the leaves and flows its liquid on the wound. Also I bought ‘baslin’ from shop and I used it to rub on the wound. I also wear shoes. When I wear shoes continuously, I feel pain. So, I remove it sometime.

4.6. 4.Wearing Traditional Clothes and Doing Traditional Magic Belief

Men FGD discussants mentioned different coping mechanisms which are done by women who are living with the disease, and their experiences. Men discussant Belete explained that wearing traditional clothes and doing other traditional magic belief like presenting ‘yequn yiqel’ to the magician and wearing long ‘gano qemis’ clothe to cover her leg and magic celebration as a mechanism of coping podoconiosis. He stated his perception and experience by mentioning his aunt as example:

> My aunt tried to protect the disease by wearing traditional clothes and doing traditional magic belief practice like presenting “yequn yiqel” to the magician. She was also used a long traditional clothe called ‘gano qemis’ for the magic celebration and to cover the wound. She wore such clothe during holyday and tried to protect the disease in such away.

Men FGD discussant Ayele also strengthened the idea of Belete in the following way:

> Others have other mechanisms which related to traditional belief system and magic like having jewelries and special clothes to relieve from the disease. These are gano, kuta, neck string, yequniqel, yechewqel, yeqibeqel. These things fully presented during holyday and in other special occasion. These processes are ordered and done by traditional healers and magicians. The person didn't allow making sexual intercourse during that holyday and special occasion. These activities are done to cope up podoconiosis and other type of disease.

Also during the field work and data collection, the researchers observe that there are no medication materials and organized data about podoconiosis both in yechereqa kebele and Dembecha woreda health station.

Short Summary of the Finding

As the study revealed, women living with podoconiosis are illiterate and are not married. They have no access for infrastructure and couldn't fulfill their basic needs. Women living with podoconiosis did not know the nature of podoconiosis rather they recognize the swelling and the pain. Health experts also have different understanding about the nature of the disease. Women who living with podoconiosis recognized the infection and pain of podoconiosis at their childhood stage and at least lived with the disease for 15 years. The disease aggravated when patients became barefoot, make long walk and hard work. The main causes of podoconiosis associated with walking on bare foot, action of witch craft, ritual activities, fresh funeral soil, genetics, mosquito, red clay soil, super natural order and sharing shoes.

Women living with podoconiosis faced and suffered by economic, social and physical challenges of the disease. Difficulty in work engagement, engaging in risky economic activity or

forced to change work engagement from productive to unproductive activities,being dependant on others, losing productivity, self-exclusion from economic activities, low standard of living are perceived as the economic challenges of podoconiosis. On the other hand, social exclusion, marital dissolution, loneliness and psychological challenges, being sexual partner, divorce and forced to marry podoconiosis affected persons are some of the social challenges of women living with podoconiosis. In related to physical challenge, women living with podoconiosis faced problem of mobility, wound development, physical deformity and change of appearance

Unfamiliarity of the disease, non-existence of medicine, lack of government support and attention, lack of commitment by health care worker are some of the challenges of combating podoconiosis. As the data indicate, there is no specific coping mechanism for podoconiosis. Some women who are living with podoconiosis used multiple coping methods, others used modern medicine, traditional medicine and the rest used action of witch craft, and wearing traditional long clothes. Keeping personal hygiene, abstain from work and soil contact are commonly practiced method of coping.

This study is different from other researches and has new findings in its holistic approach and exploration of podoconiosis on infected women's life. Women living with the disease suffered by the vicious circle physical, social and economic challenges of the disease. As this study result showed, the physical deformity become the cause for social exclusion and the social challenges become the cause for economic exclusion and the economic loss led to unable to get medication, and the disease become sever. Women who are living with podoconiosis are forced to become sexual partner rather than wife, resigned their job by themselves due to fear of stigma, changed work engagement, doing risky economic activities like commercial sex work due to their podoconiosis. They used different types of plants and presenting different types of jewelries

to magicians to get cure and to cope up the disease. The other new finding is, this study showed the clear gaps of knowledge and the challenges to combat podoconiosis.

CHAPTER FIVE: DISCUSSION

This section presents the discussion of the findings in related to the literatures. The major themes which the researcher discusses in relation to various literatures encompasses: nature of podocniosis, perceived reason, challenges and copying mechanism of Podoconiosis.

5.1. Nature of Podocniosis

. With regard to recognizing and understanding of the nature of podoconiosis, this study found that the disease recognized as leg swelling disease but the nature of the disease not fully understood by the participants, focus group discussants and key informants as well. As this result, community members and health expert have different picture about the disease. The perception in which commonlyknown by the community members as result of super natural order, genetics and action of witchcraftmakes the patients not come to the modern medication. As the result of the knowledge gap about podoconiosis, women living with the disease used different plants for medication without considering the side effects. The same is true on the practice of witch crafts. This result is consistent to Deribe (2017) thatpodoconiosis in Ethiopia is not fully understood.

5.2. Perceived Reason of podoconiosis

In this research finding, both scientific evidence based and a factor that doesn't have scientific reasoning were identified about the cause of podoconiosis. Considering red clay soil, genetics and being barefoot as the cause of podoconiosis is scientifically evidence based.Deribe (2017)indicated thatthe reasons of podoconiosis includesexposure to irritant red clay soil in endemic areas as well as the effect of genetic susceptibility perceived as the cause of podoconiosis.On the other hand, associating the factors and the prevalence of Podoconiosis with ritualistic culture that does not have scientific reasoning like eating the holiday's goat meat and

touching the blood, order of super natural power, exposed to sunstroke, mosquito, action of witch craftand staying on fresh funeral site have no scientific evidence about the cause of podoconiosis. This finding is consistent with Maloney (2012) research that many Ethiopian podoconiosis patients have no well understanding and knowledge about the cause of the disease that associated the reasons with the false belief and myth which is passed down from generation to generation.This result is also consistent with Molla et al. (2012) that patients have different perception about the causes, some did not know, heredity, curse from God or the action of a witch craft, injury, exposure to sunshine.

From this finding, the researcher believed that the cause of podoconiosis is exposure to red clay and being bare foot rather than traditional beliefs and mosquito.

5.3. Challenges of Podoconiosis

Podoconiosis has vicious circle type of economic, social and physical challenges in affected areas. If the person severely affected by podoconiosis, there will be deformation, change of appearance, unpleasant odor, fester and fracture. The deformation of leg,unpleasant odor, and fester bring social exclusion and discrimination. This condition, in turn brings psychological problem and exclusion from economic activities like group work. On the other hand, patients couldn’t work equally with others because of the disease, as a result, forced to leave the work either by other or by him/herself. This situation also bring economic lose and the patient faced with economic exclusion. This study also discusses the challenges of physical deformity and social discrimination, physical deformity and pain for income generation activities in interrelated way as follow.

5.3.1. Physical Deformity and Pain as a Challenge for Income Generation Activities

This study found that physical deformity of leg and pains of the disease are among the challenges of podoconiosis in related to economic engagement. Women living podoconiosis couldn't do their regular economic activitiesdue to inability to move. When they make contact to the soil, the disease aggravated.As a result, there are women living with the disease that did nothing, and others forced to change their economic activities. Similarly, other women who have the case want to do farming but they unable to do that andlose their productivity because of the disease rather they made contractual agreement for equal share of their land**.**There is a similar finding in the previous study**.**Tekola (2006) found that the productivity of the individual podoconiosis patient decline significantly and loss their productivity amounted to 45% of the total working days per year.

When the swelling become huge, women living with podoconiosis lose their walking balance,and stay at home a number of days. Since they have no option for work, they engaged in risky economic activity like commercial sex work, sell local beer like Arkie and Tela. Besides, the women who have podoconiosis roast maize to make Tela of other community members and earn small amount of money. In related to this they exposed to sunstroke and their sickness aggravated again. They slept again and they went to health station to get treatment, and paid what they earn in daily work. This finding is consistent to Tekola (2006) that patients cost for medication for treatment exhaustively.

Other women who are living with podoconiosis also discriminate themselves from economic activities because of the deformation, fester and odor of the disease like preparing food, and others couldn't match economically with the rest of the community members and unable to get job even being house servant because of the perception of the communities that the

disease is as transferable. This finding is consistent with Tasew (2015) that patients of podoconiosis inability to fulfill their needs as a result of could not work and unable to get job.

5.3.2. Physical Deformity and Social Discrimination

The physical deformity changes the appearance and decreases the beauty of women living with podoconiosis.As a result, engaging in marriage decreased especially when the severity of the disease increased because discrimination and exclusion increased.The previous study of Tora et al. (2014) is consistent with this finding that podoconiosis leads to social exclusion of individuals and forced to divorce, dissolution of marriage plan, insults and exclusion.

If the swelling of women living with podoconiosis have wound ,odor, fester and the women who are living with the disease didn't wash and wear shoes, they are discriminated by the community even from different association and religion sites like church as the result of unpleasant odor of the disease. Besides, women living with the disease discriminated and excluded because of the belief of community members that the disease can transfer from one person to another by contact. This finding is similar toTora et al. (2011) research that podoconiosis patients frequently experience stigma due to the perception that the disease is contagious. On the same way, Tasew, (2015) stated that the prevailing of discrimination against patients are the erroneous belief that the disease cannot be prevented, treated or controlled; association of the disease with curses; and the belief that the disease runs in families through hereditary factors that are inevitable.

The finding of this study revealed the physical challenges of women who are living with podoconiosis like unable to move, couldn't wear shoes even socks, change of appearance and deformation of leg, decrease the beauties, development of extra swelling and fester. Besides,

swelling appeared from the foot up to the junction where the two legs joined and make them to lose their balance or improper type of walking style. There is similar finding in the previous study ofVisser (2014) that patients of Podoconiosis suffer by disabling of physical challengesandenlargement of the entire leg or arm, genitals, vulva and breasts and thephysical disability is associated with mobility, self-care, usual activity and pain or discomfort and open wounds.

5.4. Challenges of Combating Podoconiosis

The finding of this study identified the main challenges of combating podoconiosis. The nature of the disease, less attention of the government and lack of commitment by health workers to combat the disease are the most challenges aspect.

5.4.1. Nature of the Disease

The finding of this study indicates the beliefs that podoconiosis has no medicine and the non-existence of medicine as challenging factor to combat the disease. Besides, the medication which is prescribed by health centers like washing the wound by soap and berkina is good for the external parts to protect germs, but nothing to the internal parts. This finding consistent to Mousley et al.,(2013) study that the widespread misconceptions about podoconiosis and believe in most patients and health providers is, podoconiosis has no treatment.This study also revealed that podoconiosis affects the poorest women living in rural areas where basic facilities and medicine are non-existent, and community members have no habit of wearing shoes. This finding related with Hotez, Paredes, Ault, and Periago, (2008) study that podoconiosis significantly affect the poorest, most vulnerable and most disenfranchised members of society.

5.4.2. Lack of Government Support and Attention

As the finding indicates, there is no enough treatment and intervention of the government rather one private organization was provided bidet for washing, shoes and soap once before two years, but after that, there is nothing; no one see either the progress or the worse situation. In some extent, this finding is similar to Deribe et al (2017) findings that some effort of few non-governmental organizations trial to implement podoconiosis intervention programs in Ethiopia and able to reach only 3% of the estimated cases that covers 12% of the endemic districts. Since there is no financial or material support and transport accessibility from the government, women living with podoconiosis didn't wear shoes because they unable to afford and not came to the health station because of remoteness and lack of infrastructure. Tomczyk, Tamiru , Davey , (2012) research finding is consistent with this result that women affected by podoconiosis may not be able to going to health center because it is too difficult to travel and the remoteness of the areas and inability to buy shoes as they are not supported by the government.

5.4.3. Lack of Commitment by Health Worker

The other challenge to combat podoconiosis is lack of care and support from the health station which make the patient hopeless. Health worker have no commitment to identifying and organizing women who are living with the disease, lack of communication with these women, lack of integration, absence of monitoring and evaluation of the diseases, lack of research on podoconiosis, attitudinal problem of health workers are challenges of combating podoconiosis. This finding is consistent with Deribe, Tomczyk, Ayele,(2013) findings which stated the challenges and burden of podoconiosis in related to research and controls, limited involvement of government health services, un sustainability of prevention efforts, limited knowledge of mid- and high-level health professionals, neglect of global health advocates of non-infectious

and non-fatal, limited amount sources of funding available for research and interventions, absence of comprehensive data on the distribution and burden of podoconiosis, lack of diagnostic tools, which are necessary for delivery of treatment and interventions (Deribe, Tomczyk, Ayele, 2013). On the same way, Deribe et al. (2017) noted that resource constraints continue to be a large barrier to train health providers, obtain necessary treatment supplies and expand critical services to all endemic districts

5.5. Coping Mechanism of Podoconiosis

The finding of this study revealed that women who are living with podoconiosis have different copying mechanisms with their physical pain, economic and social challenges.

5.5.1. Coping with Physical Pain

Keeping personal hygiene, avoiding extra trauma and injury, abstain from work and soil contact, taking enough rest, rubbing "bazlin" the swelling leg are important strategies to cope up the physical pain of the disease. This finding is consistent with Deribe (2018) study that podoconiosis does not have specific copying mechanisms, but primary prevention and copying mechanism is hygiene-based management which includes foot hygiene, wound care, treatment of acute infections, avoidance of prolonged contact between the skin and irritant soils. On the same way, Korevaar, (2012) stated that the primary copying strategy of podoconiosis consist of education on the etiology and how to avoid prolonged exposure to irritant soils, using appropriate and protective footwear, covering floor surfaces and applying skincare.

Inconsistent to Korevaar, (2012) and Deribe, (2018) finding, this study revealed other copying strategies of women living with podoconiosis that women used "bazline", insect flit, 'Dama Kesye' , 'snake poison' and different leaves,' Yebab Alega' for their physical pain.

5.5.2. Coping with Social Challenges

Women who are living with podoconiosis put their shoes far from person to avoid odor , wearing long traditional clothes and covering the swelled leg by clothe while sitting in front of somebody and not to be said swelled leg, marrying affected men, abstained participating from social events due to stigma are the strategies to cope up social challenges. Tora et al (2011) study indicate thatcoping strategies employed by podoconiosis patients against stigma in social events, mate selection and marriage like avoiding to going to social events, wearing shoes and long clothes, avoiding marrying unaffected people (by considering and fearing the insults and humiliation after marriage), changing place of residence.

5.5.3. Coping with Economic Challenges

To cope up the economic challenges, women who are living with podoconiosis engaged in economic activities like commercial sex work; sell local beer like ‘Arkie’ ‘Tela’ and roasting maize to make Tela of other community members and earn small amount of money. Besides, they make contractual agreement with the one who can cultivate their land for equal share. As a result, they lose their productivity and lead lower quality of life from other community members. This finding is similar to Samuel Tasew (2015) research that podoconiosis paticients lose productivity potential (wage earning potential) and have low quality of life in the community than non-affected individuals.

CHAPTER SIX: CONCLUSION AND SOCIAL WORK IMPLICATION

6.1. Conclusion

This research has explored the nature of podocniosis, perceived reason, economic, social and physical challenges, and coping mechanism of women living with podoconiosis. As the study revealed, the area in which this study conducted is highly sensitive to podoconiosis and residents engaged in agricultural activities with no much habit of wearing shoes. Women who are living with podoconiosis and community members did not recognized and understood the nature of the disease fully. As a result, women living with podoconiosis suffered by the vicious circle economic, social and physical challenges of podoconiosis. The physical deformity and pain of podoconiosis become the cause for social exclusion. The social exclusion in turn brings economic exclusion and psychological problem. This condition also increases loss of productivity and level poverty. Because of this, women who are living with podoconiosis couldn't afford shoes to protect the disease and unable to get medication. As a result, the disease severely affects and led them to live impoverished life.

In related to the perception of the cause of the disease, discussants and the women living with podoconiosis themselves associate the cause and the prevalence of podoconiosis with ritualistic culture practice that does not have scientific reasoning like eating the holiday's goat meat and touching the blood, staying on fresh funeral site, action of a witch craft and super natural order due to the knowledge gap about the nature of podoconiosis. Few of FGD discussants and health worker stated as genetics, exposure to red clay soil and being bare foot as the cause of podoconiosis. As the finding noted the economic challenges of podoconiosisis related to work engagement and women living with the disease couldn't do their regular economic activities because the disease aggravated if there is contact with the soil. As a result,

there are women who are living with the disease and did nothing, stay at home a number of days and forced to change their work and engaged inrisky economic activity like commercial sex work, selling localbeer Arkie and Tela. Other women who are living with the disease also resigned their jobs themselves because of the discrimination and unable to get job even being house servant because of the perception of the communities that the disease is as transferable. As a result, patients couldn't fulfill their basic need, become poor and lead impoverished life.

This study also found that women living with podoconiosis faced social challenges in related to this disease. They are not married rather they make sexual partner as result of the discrimination. Other women faced challenge of loneliness and psychological problems as result vicious circle burden of the disease and divorced repeatedly. Women living with podoconiosis delivered child from their sexual partner to relive from loneliness, to protect their property, and the perception that they unable to get husband. On the other hand, men make them sexual partner by considering the resources of the woman like land. Women living with this disease discriminated and excluded because of the belief of the community members that the disease can transfer from one person to another by contact. Besides, finding of this study revealed that the intensity of social exclusion and discrimination is depending on the severity of the disease.

The physical challenges of women who are living with podoconiosis is unable to move, couldn't wear shoes even socks, change of appearance and deformation of leg, decrease the beauties, development of extra swelling and fester. Besides, swelling appeared from the foot up to the junction where the two legs joined make them to lose their balance or improper type of walking style.

The finding of this study identified the main challenges of combating podoconiosis. The less attention of the government and not intervened to combat the disease is the most challenging

aspect. As the finding indicate, one private organization was provided bidet for washing, shoes and soap once before two years, but after that, there is nothing; no one see either the progress or the worse situation. The other challenge to combat podoconiosis and identified by the study are: identifying and organizing women who are living with the disease, lack of communication with these women because there is no data and lists of women, government health structural problem, financial and resources constraints, lack of communication among health experts and capacity building training, unavailability of medicine for podoconiosis, lack of commitment among the health worker, less confidence of patients not to go to health station purposely for treatment, sudden work load of health experts, absence of monitoring and evaluation of the diseases, lack of research on podoconiosis, sense of dependency of the women who are living with the disease, attitudinal problem are challenges of combating podoconiosis.

The finding of this study also indicated that women who are living with podoconiosis have different coping mechanisms. Keeping personal hygiene, abstain from work and soil contact as primary strategy to cope up podoconiosis even if they applied other additional strategies. Using ‘bazline’, insecticide, ‘Dama Kesye’ , ‘snake poison’ and different leaves,‘ Yebab Alega’, and putting the shoes far from person to avoid odor , wearing traditional long clothes and doing other traditional magic belief like wearing ‘jano’, neck string, jewelries ,special clothes and presenting “yequniqel”, “yechewqel”, are the perceived strategy and copying mechanism of podoconiosis. In related to marriage, podoconiosis patients prefer to marry affected men. Severely affected women abstained from participating from social events due to stigma and economic reasons.

6.2. Implications of the Study

The finding of the study has implications for social work education, further research and social work practice as well as policy formulations.

6.2.1. Implication for Social Work Education

Social workers should advocate the full participation and equal opportunity of women who are living with podoconiosis and creating awareness for the society about the misconception of podoconiosis.At the individual level, educational programs have to be set for health care givers or health professionals, for women living with podoconiosis and their families to mitigateprejudicial attitudes towards the disease. In addition, including the issue of neglected tropical disease like podoconiosisin the curriculum of social work in the course of "Health Care Social Work", helps to solve the health problem of voiceless and vulnerable segment of communities like women that have no access for health. In addition, including the neglected tropical disease in the curriculum facilitates social work practice. In addition to educational programs, capacity building training is important to rehabilitate physically, socially, and economically affected women. At community level, health education campaigns must held on podoconiosis at different community level meetings and social events. To set both educational programs and capacity building training about neglected tropical disease especial on podoconiosis, this study can be important asset for social work department.

6.2.2. Implications for Social Work Practice

The finding of the study also shows many implications for the need of social work practice. Social work practitioners could identify and assess all women who are living with podoconiosis to show the case for officials and non-governmental organizations that there is a serious need for more health care and social services in the community in the practical arena.

The participants are suffering from different economic and social challenges due to lack of awareness. In order to combat this ignorance, this research implies a need of series community workshops to provide factual information relating to podoconiosis for the community members. Community health extension workers who are working in the rural Kebeles of the Woreda should access training to provide special care and treatment, counselling and support for women living with podoconiosis. This research also indicates that the need of establishing community based support groups with the objective of supporting podoconiosis patients. To achieve this, social worker intervention is important to aware and develops the conscious of the communities about the disease, for collecting and organizing the data, for processing the information, reporting the case to the concerned body, to provide cares for those who have the case, to search funds and income sources, to facilitate community level platform and meetings. Social worker can create linkage with humanitarian organization like Red Cross to get fund and material support. Social worker can use religious sites, schools, governmental meetings and societal social events to raise the conscious of the communities.

Moreover, social workers should involve in rehabilitating women who are living with podoconiosis to break the cultural, social, psychological and economic challenges and to make women productive part of the society. To achieve this, there should be adequate, well qualified, and competent social workers. In this regard the mandate is to be left for higher institutions, especially for the school of social work. The social work can be intervening at individual, community, institutional, and policy level. Doing comprehensive needs assessment and following participatory approach are important strategy in this area.

6.2.3. Research implication

As most literature revealed there is a research gap conducted on women living with podoconiosis. Hence the researcher believes that research should be conducted on how to improve the economic situation of women who are living with podoconiosis, since they are highly characterized by poverty. The existing knowledge, attitudes, beliefs and practices of the men who have the podoconiosis should be also explored and researched before appropriate awareness programs are designed and implemented. This is best done through a combination of qualitative methods such as focus groups and quantitative methods such as surveys. In addition, the sample size of the study was small and the site was also only a single center. Therefore a macro level study that incorporates large samples would help to arrive at different result, which might help to introduce a better intervention plan. In this research finding, women living with podoconiosis used different plants and action of witch crafts without knowing the extra or side effect on their physical, health and economics aspect. As a result, the researcher suggests further study on the side effect of physical, health and economic impact of the coping strategies of women living with podoconiosis and its further implication on the life of the victims or clearly documenting of their experience in using alternative and complimentary treatment mechanisms.

6.2.4. Implications for Policy

Social workers should work with GOs and NGOs in the Woreda and advocate for the regional and national government to initiate policies which makes women who are living with podoconiosis of the Woreda benefit because there is little or no policy influence in the private sector. More support and rehabilitation services have to be provided to patients and their families.. Government should establish a mandatory insurance program for long term care and promote to private industry to do more on podoconiosis. Besides, podoconiosis control programs

should be integrated into the general health care system. As stigma may be perpetuated by the negative attitudes of health care providers themselves, training for health care providers helps to make health experts more sensitive and empathetic to podoconiosis patients‘. Involving traditional healers and community leaders is important in the process of disseminating health messages on podoconiosis, facilitating early detection and treatment is important to initiate policies on this disease. Therefore, these legislative and policy gaps can be alleviated with the participation and advocacy works of social workers in the regional and national policy formulations. Detailed and clear social welfare policies and legislations should be formulated to make the rural women who are living with podoconiosis benefit.

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Appendices

Appendix A: Introduction and Consent Statements for Interview of Participants

Addis Ababa University Code ……

College of Social Sciences Date of Interview…

School of Social Work Place of interview------

Informed Consent Form

My name is Alemlante Kassa. I am MA candidate at Addis Ababa University, School of Social Work in Addis Ababa, Ethiopia. I am conducting this research in partial fulfillment of the requirements for MA in Social Work with the title of "The Life Situation of Women Living with Podoconiosis in Dembecha Woreda Yechereqa Kebele ''.

The objective of this study is to explore the life situation and copying strategies of women living with podoconiosis who are lived in Yechereqa Kebele in Dembecha woreda West Gojjam Zone Amhara Region, Ethiopia. The study focuses on the perceived reasons, treatments that women get cure, assess physical, social and economic challenges, and to state the copying strategies of women living with podoconiosis.For this study, I propose you as a source of information. Your participation and cooperation helps me to accomplish the research objectives. So, I am kindly requesting you to share your experience and perception. In the course of your participation, I want to assured you that, the information that you will share to me, will be kept confidentially and will be used only for educational purpose. Nothing has the objective beyond and the data is fully confidential for the purpose of this research only. You have also the right to refuse or not to answer any question, and also quit; if you feel discomfort with the questions. If you are willing, the information will be recorded by code and the finding of this study will be presented and

reported to the department of school of social work. There are benefits of the participants in this study. Participants may feel satisfaction for their voluntarily sharing their experiences to know about the experience of women living with podoconiosis and having the opportunity to have their voices heard. To ensure confidentiality and protect participants' privacy tape-recorded interviews, field notes and transcriptions will be kept in a secured place. These documents will be given code numbers and they will be accessible only to the researcher. Besides, Participants will have the opportunity to check tape-recorded interviews and make reflections.

Confirmation

If you are willing to participate in this study, please sign on the two copies of this informed consent form and return one copy to the researcher and keep the other copy with you.

Participant's Name _____ Signature _____ Date _____

Researcher's Name _____Signature _____ Date _____

Thank you so much for your willingness to participate in this study!

Appendix B: Interview Guide Questions

I. Questions on background of research participant

Code ----------Sex----------Age ----------, Place of birth----------

Religion----------Marital status----------if you are single why? ----------

Structure of your family:

Nuclear----------extended---------- or any other----------

Number of children: male----------, female----------

Educational level ----------

Previous occupation---------- and current occupation ----------,

Source of income----------, average monthly income , ----------Birr.

Physical and mental health conditions----------

II. About Podoconiosis diseases

-What is podoconiosis?

-When did you recognize this disease?

-Do you know the reason of podoconiosis?

- Could you explain the aggravating factor?

-What changes did you observe in your living conditions following this happening?

III. Economic challenge

-Could you explain about your source of income?

-Could you explain how you can manage it?

-Do you have your own house?

V. podoconiosis and social challenges

-When did you marry?

-How you select your husband?

- Did you live together now?

-Tell me about your family members?

- Would you explain your relation with family members and neighbors?

- What are the social events in your community and your role?

-How can you solve the problems in relation to social events?

-How can youaccess the social services / health station, water point, electricity/?

VI. Physical challenges

Would you tell me the work environment including the roads?

Could tell me the major problems in relation to your occupation?

-How can you solve it?

VII. Coping mechanism

- What did you do about podoconiosis to get cure?

- Who help you in the process of treatment?

X. About the needs of participants?

-What measurements should be taken for this disease at government and community level?

-What things should be fulfill to avoid podoconiosis?

-What things should be fulfill for the betterment of your life?

XI. Closing question

- Do you want to add some points before closing of this interview session?

Thank you very much for participating in this study! If I encounter any confusion, I will come again.

C. Key Informant Interview guide for health care /Social Service Providers

Part one: Personal information

Sex _____

Age_____

Marital status _____

Years of service working with women living with podoconiosis _____

Religion _____

Educational status _____

Occupation_____

Part II: **Economic physical and social situation of women living with podoconiosis**

1. For how long you have been working here?
2. What is podoconiosis?
3. What are the causes of podoconiosis? What are the major aggravating factors for podoconiosis?
4. What are the major physical, social & economic challenges of women living with podoconiosis?
5. What are the roles of health care /social service providers to improve the physical, social economic situation of women living with podoconiosis?
6. What are the major problems of health care /social service providers to improve the life situation of women living with podoconiosis?
7. What social wok interventions could be put in place to improve the living conditions of women living with podoconiosis?

D. Focus group guide for community members

Introduction-introduce self and explain how long the session expected to run.

Focus group discussion objectives-introduce the aim of the study.

Sex _____

Age_____

Religion _____

Educational status _____

Occupation _____

Residential area _____

Marital Status _____

Discussion Themes

1. What is podoconiosis

2. What are the causes of podoconiosis?

3. What are economic, physical and social challenges of podoconiosis?

4. What are the Coping strategies to overcome challenges related to the economic and social challenge of to podoconiosis?

C. Observation Checklist

1. What is the geographic area and characteristics of the community?

2. What are the economic activities that participants engaged in?

3. What are the infrastructures (health, road, water, school…) that research participants used?

4. What are the environmental setting, verbal and non-verbal communication of the participants?

5. What is the facial and feeling expression of the research participants?

Appendix D: Introduction and Consent Statements (Amharic)

መረጃ መሰብሰቢያ ቅጽ **ቀን----------**

የአዲስ አበባዩኒቨርሰቲ **ቁጥር----------**

በማህበራዊ ሳይንስ ኮሌጅ **መስያ----------**

የሶሻል ወርክ ትምህርት ክፍል

መግቢያ እና የስምምነት አንቀጽ

አስምላንተ ካሳ እባላለሁ፡፡ በአዲስ አበባ ዩንቨርስቲ ማህበራዊ ሳይንስ ኮሌጅ የሶሻል ወርክ ትምህርት ክፍል የድረ ምረቃ ተማሪ ስሆን ዝሆኔ በተባለው በሽታ ላይ በማተኮር ፣ በዚህ በሽታ ምክንያት ችግር የሚያጋጥማቸውን ሴቶች ያሳቸው የህይወት ልምድ በሚል በደምበጫ ወረዳ የጨረቃ ቀበሌ ውስጥ ጥናት ስማድረግ ስለፈለኩኝ የእናንተ ቀና ትብብር ስዚህ ጥናት ዓላማ ስኬት አጋዥ ስለሆነ ያሳችሁን ልምድና እዉቀት እንድታካፍሉኝ ስል በትህትና እጠይቃለሁ፡፡

የዚህ ጥናት ዓላማ በሽተው ያሳባቸው ሰዎች ላይ ስለበሽተው መንስኤዎች ያሳቸው ግንዛቤ፣ ከበሽታው ፈውስ ስማግኘት ስለሚያደርጉዋቸው ህክምናዎችና ያሚያጋጥሙዋቸው ተግዳሮቶች ያሳቸው የህይወት ተሞክሮ መረዳት ነው፡፡የዚህ ጥናት ተሳታፊ የሚሆኑ ግለሰቦች ያሳቸውን የሂዎት ተሞክሮ በፈቃደኝነት በማካፈላቸው የሞራል እርካታ ፣በሽታውን በተመለከተ ያሉባቸውን ችግሮች መረዳት መቻላቸው፣ ችግሩ ያለባቸው ግለሰቦች ትኩረት እንዲያገኙ ጥናቱ እንደመነሻ ማገልገሉ የጥናቱ ሌላኛው ጠቀሚታ ነው፡፡ ይህን መጠይቅ በምናደርግበት ጊዜ ማንኛውም ሰዉ ስዚህ ጥናት የሚሰጠዉ መረጃ ስዚህ ጥናት ፍጆታ ብቻ የሚዉል ነው፡፡ በተነሱት ጥያቄዎች ላይ መልስ ያስ መስጠት፣ የማቆም ወይም እስከ ጥናቱ መጨረሻ ያለመቆየት መብታችሁ የተጠበቀ ነው፡፡ ከእናንተ ያገኘኋቸው መረጃዎች ለሌላ ሶስተኛ ወገን ተላልፈው እንደማይሰጡ እና ማንኛውንም ሚስጢር በታማኝነት ስመጠበቅ ቃል አገባለሁ ፡፡ ስለዚህ እናንተ በዚህ ጥናት ስመሳተፍ ፍቃደኛ ከሆናችሁ የምትሰጡኝን መረጃ በልዩ መለያ ሚሰጥር (ኮድ) በመመዘገብ የማስቀምጥ መሆኑን አገልጻለሁ ፡፡ በመጨረሻም የዚህን ጥናት ውጤት

በአዲስ አበባ ዩኒቭርሰቲ ማህበራዊ ኮሌጅ ሶሻል ወርክ ትምህርት ክፍል የሚቀርብ እና ሪፖርት የሚደረግ መሆኑን አገልጻለሁ ::

የስምምነት ማረጋገጫ ቅጽ

በዚህ ጥናት ለመሳተፍ ፈቃደኛ ከሆኑ ያለዎትን ስምምነት በተዘጋጀው 2 ቅጽ ላይ በመፈረም አንዱን ለእርስዎ ሁለተኛውን ጥናቱን ለሚያካሂደው አካል ይመልሱ

የተሳታፊ ስም----------ፊርማ----------ቀን----------

ጥናቱን የሚያደርገው ስም----------ፊርማ----------ቀን-------

ስለቀና ተሳትፎዎ እና ለመሳተፍም በመወሰንዎ በቅድሚያ አመሰግናለሁ !!

<u>የቃለ መጠይቅ ጥያቄዎች</u>

የዝሆኔ በሽታ ሳለባቸው ሴቶች የተዘጋጀ መጠይቅ

ι. ግላዊመረጃ

መለያ ቁጥር-------ፃታ -------- ዕድሜ -------የትውልድ ቦታ----------

ሀይማኖት---------- የጋብቻ ሁኔታ----------

የቤተሰብ ሁኔታ፡ባልና ሚስት ብቻ---------- ሌላ----------

የልጆች ብዛት ወ፡------ሴ----------ሌላ----------

የትምህርት ደረጃ ----------

ቀድሞ ይኖሩበት የነበረ ሰፈር ስም----------አሁን ያሉበት ሰፈር ስም----------

ቀድሞ ይሰሩት የነበረ ስራ ----------አሁን የሚሰሩት----------

የገቢ ምንጭ----------አማካይ ወርሀዊ ገቢ----------

አካላዊና አዕምሮዊ የጤና ሁኔታ----------

II. ስለዝሆኔ በሽታ ምንነት

-የዝሆኔ በሽታ ምንድን ነው ብለው ያስባሉ ? ይህን በሽታ ያመቁት ከመቼ ጀምሮ ነው ?

- ምክንያቱ ምንድነው ብለው ያስባሉ ? ምክንያቱን እንዴት አወቁ ?

- ይህን በሽታ የሚያበዙ ነገሮች ምንድን ናቸው ብለው ያስባሉ ?

- በእርስዎ ላይ የዝሆኔ በሽታ ከተከሰተ በኋላ በኑሮዎ ላይ ምን ተከሰተ ?

III. ከዝሆኔ በሽታ ጋር በተያያዘ የሚደርስ ኢኮኖሚያዊ ችግር

- የገቢ ምንጭዎ ምንድን ነው?

-እንዴትስ ያስተዳድሩታል ?

- ምን ያክል ፍላጎትዎን ማሙዋላት ያስችልዎታል ?

VI. ከበሽታው ጋር በተያያዘ ያለ አካላዊ ችግር

-የስራ አካባቢዎን ቢገልጹልኝ የመንገዱን ሁኔታ ጨምሮ?

- ከስራ ጋር በተያያዘ ያጋጠምዎትን ችግር ቢያብራሩልኝ?

-እነዚህን ችግሮች እንዴት ይፈቱዋቸዋል ?

V.የዝሆኔ በሽታ ና ማህበራዊ ተግዳሮቶች

-ስግብተዋል ? መቼ ?

-ከባለቤተዎ ጋር እንዴት ተገናኙ ? አሁን ያለውን ሁኔታ ቢገልጹልኝ ?

-ስለ ቤተሰብዎ አባላት ሲነግሩኝ ይችላሉ ? ከቤተሰብ አባላት ና ጎረቤትዎ ያለዎትን ግንኙነት እንዴት ይገልጹታል?

-በዚህ አካባቢ ያሉ ማህበራዊ ግንኙነቶች ምን ምን ናቸው ? እርስዎስ እንዴት ይሳተፉሉ?

-ማህበራዊ ግንኙነቶች ጋር በተያያዘ ችግር ሲያጋጥምዎ እንዴት ይፈቱታል ?

-ማህበራዊ አገልግሎቶችን የሚያገኙት የት ነው / ህክምና ፣ ውሀ ፣ መብራት /?

VI.ከዝሆኔ በሽታ ጋር በተያያዘ በሽታዎ ያለባቸው ግለሰቦች የሚጠይቋቸው ህክምና ና የመፍትሔ እርምጃዎች

-ከዝሆኔ በሽታ ጋር እንዴት መኖር እንደሚቻል ቢያብራሩልኝ ?

-ከዝሆኔ በሽታ ለመዳን ምን ያደርጋሉ?

-ስለ ሚያደርጉት የህክም ና ዘዴ ቢያብራሩልኝ ? በዚህ ሂደት የሚያግዝዎት አካል ስለ?

VII. የጥናቱ ተሳታፊዎች ፍላጎቶች

-የዝሆኔ በሽታን ለመካላከል በህብረተሰቡ ና በመንግስት ምን እርምጃ መወሰድ አለበት ብለው ያስባሉ?

-ለወደፊት ለኑሮዎ መሻሻል መሚሳት ያለባቸውን ነገሮች ቢገልጹልኝ ?

X. የመዝጊያ ጥያቄዎች

-ቃለ- መጠይቁን ከማጠቃለላችን በፊት የሚጨምሪት ሀሳብ ና ስተያየት ይኖራል?

በዚህ ጥናት ስለተሳተፉ ከልብ የመነጨ ምስጋናየን አቀርባለሁ ፣ስለፈላጊ ከሆነ ና ተጨማሪ መረጃ ካስፈለገኝ በድጋሚ

ስመጣለሁ ፣ ስመሰግናለሁ!!

Appendix E: የትኩረትቡድንጥያቄዎች

መግቢያ- ፊስን ማስተዋወቅ ና የቆይታ ጊዜን ማሳወቅ

የትኩረት ቡድኑ ውይይት- የትናቱን ና የቡድን ውይይት ዓላማ መግለጽ

የመወያያነጥቦች

1. የዝሆኔ በሽታ ምንድን ነው?
2. የዝሆኔ በሽታ ምክንያት ምንድን ነው?
3. የዝሆኔ በሽታ ኢኮኖሚያዊ ፣ ስላሲዊና ማህበራዊ ችግሮች ምንድን ናቸው?
4. የዝሆኔ በሽታ ስመከላከል የሚያጋጥሙ ተግዳሮቶች ቢያብራሩልኝ ?
5. የዝሆኔ በሽታ መከላከያ ዘዴዎች ምን ምን ናቸው?

Appendix F: ስተመረጡ የጤና ባለሙያዎች የተዘጋጅ መጠይቅ

ክፍል መረጃ

ዞታ----------

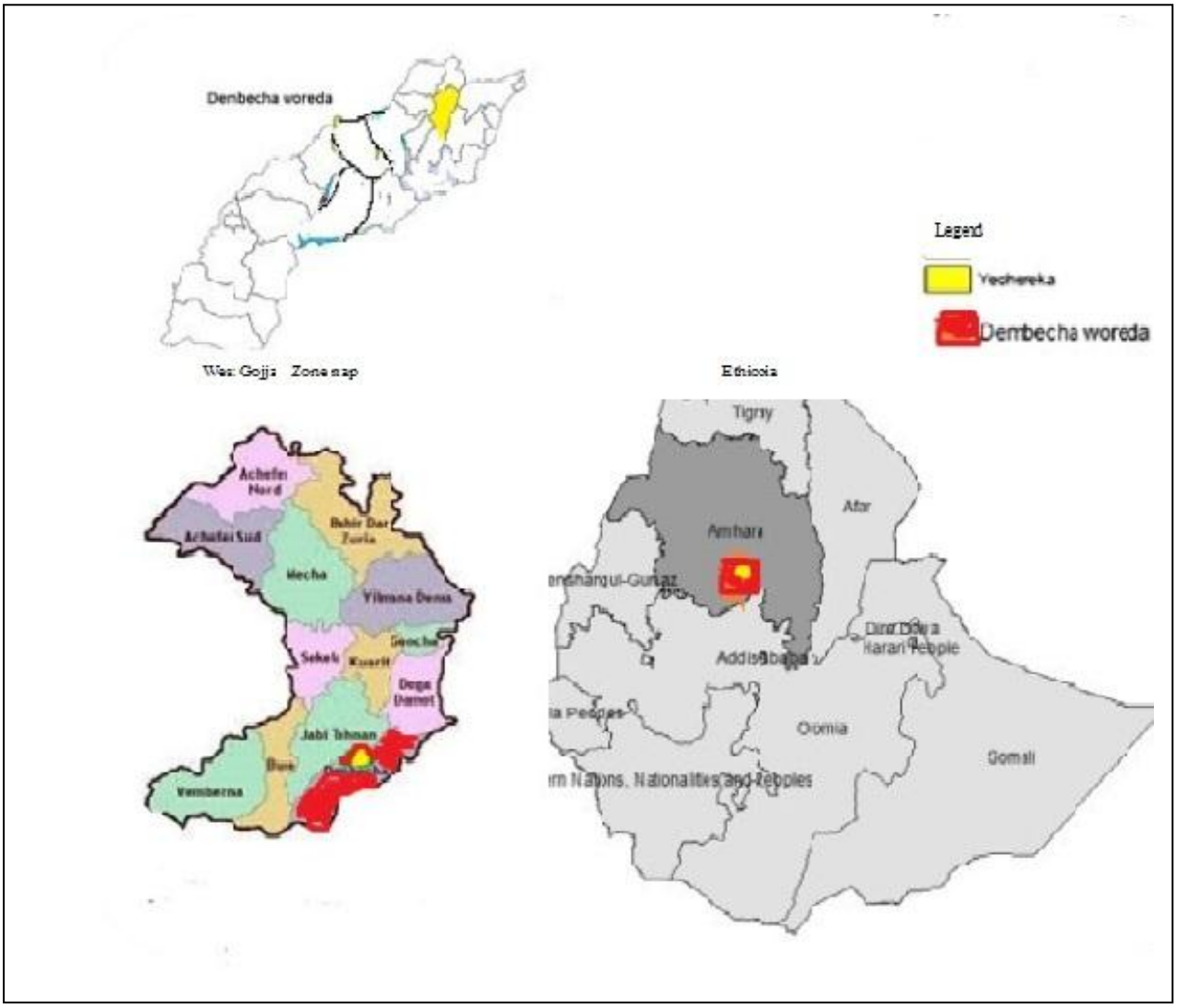
የትምህርት ደረጃ----------

ስራ----------

II.ከዝሆኔ በሽታ ጋር የሚኖሩ ሴቶች ስካለዊ ፣ ማህበራዊ ና ኢኮኖሚያዊ ሁኔታ

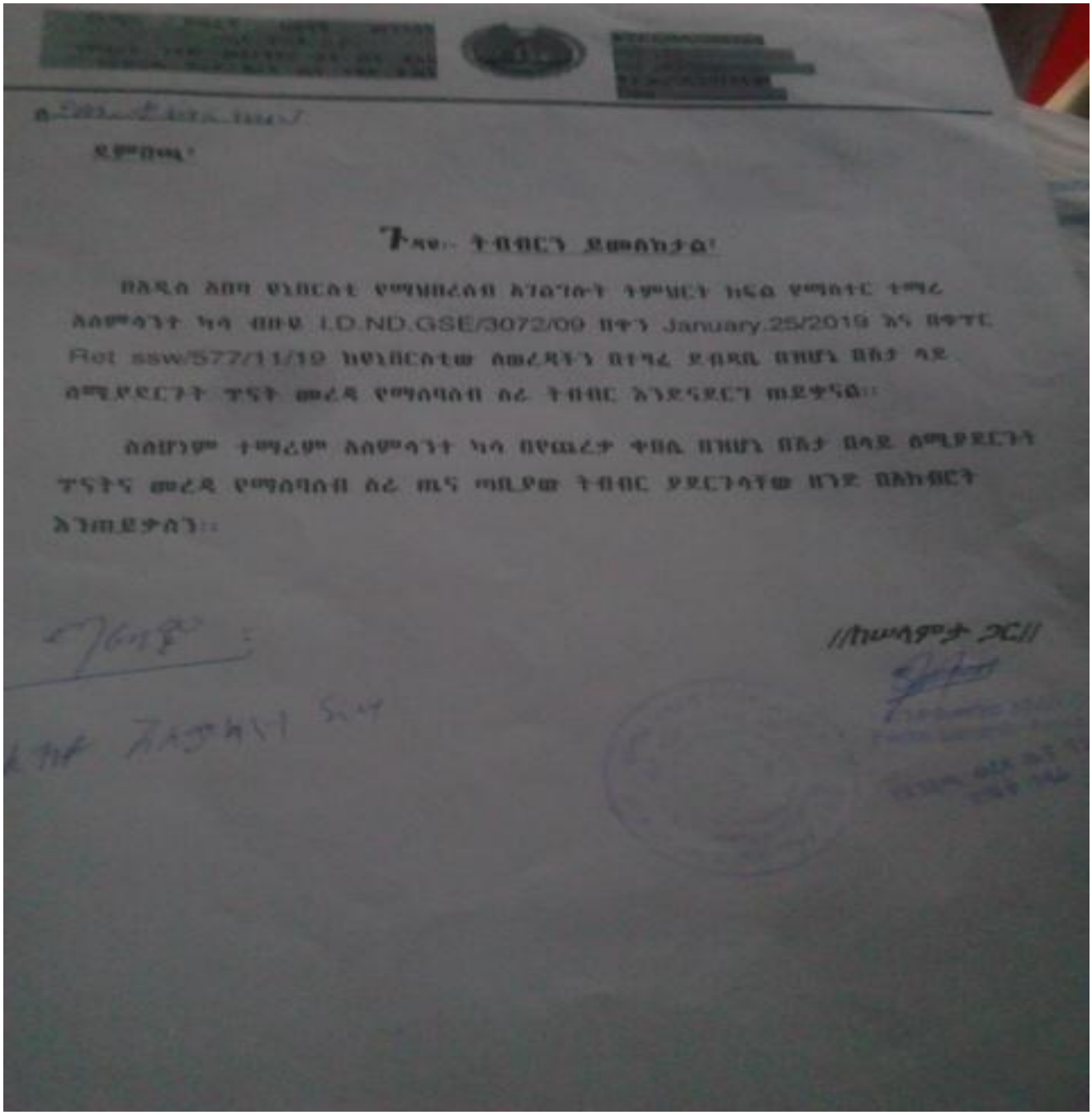
1. **የዝሆኔ በሽታ ምንድን ነው? ምክንያቱስ ?**
2. **የዝሆኔ በሽታን የሚያባብሱ ነገሮች ምንድን ናቸው?**
3. **ከዝሆኔ በሽታ ጋር በተያያዘ ስምን ያህል ጊዜ ሰርተዋል?**
4. **ከዝሆኔ በሽታ ጋር የሚኖሩ ሴቶች ዋና ዋና ስካለዊ ፣ ማህበራዊና ኢኮኖሚያዊ ችግሮች ምንድን ናቸው?**
5. **ደህንን ሁኔታ ለማሻሻል የጤና ባለሙያው ሚና ምንድን ነው? የሚያጋጥሙችግሮችስ?**
6. **ከዝሆኔ በሽታ ጋር የሚኖሩ ሴቶችን የሚያጋጥሙቸውን ኢኮኖሚያዊ ፣ስካለዊና ማህበራዊ ችግሮች ለመቅታት የሶሻል ወርክ ሰራተኛ ያስፈልጋል ብለው ያስባሉ ? ለምን?**

Appendix G: geographical map of the study area



Adopted from Dembecha Woreda Communication Office

Supporting letter of Dembecha Woreda Health Office



Story of infected participants

Abebech

I am 32 years old; I am not educated and married woman. I am alone and orthodox Christian follower. I have two sons. I was born here which is a little bit far from yechereqa; now, I am living here. Before I came here, I was living with my family members. When my father and mother divorced, I went to Addis Ababa. I was working as house servant there. Washing clothes and preparing food were my activities. We were living together like family members. Now, I am working farming. I have no monthly income rather I am waiting the harvest season of the year. I have my own land. I made contractual agreement with the individual who have the capacity to produce the land. I administer the crop that I received annually. I am not much happy and worried more; just I tried to lead simple life and waiting the coming year. I am not received the same amount of crops in each year. In one year, I got little and on other time I received well. I got small amount of crops in this year, which is less than by 3 kuntal from the previous year. As a result, it is difficult to estimate the average income because of the fluctuation of the crops.

I didn;t not know what podoconiosis is, but in my view, when I was grow up in rural area, we were collecting woods in a forest; we were walking on bare foot because rural people not wear shoes. I thought that podoconiosis could infect us when we touch its urine. We were collecting woods for the purpose of fire wood. There is forest which is a little bit far from here. We were collect wood from this forest. I was 15 years of age when I started to collect wood. When I was living in Addis Ababa, I was ill. During that time, my employer took me to the hospital and gave me medicine, even if they didn't know what podoconiosis is. But, the diseases became worse rather than getting cure. They gave me medicine two times in different ways. Again the disease

became worse. After that, I decided to stop the medicine and back to my previous home. The time was before 15 year from now. It is difficult to say what podoconiosis is but when we were collecting wood, there were different types of injure because of the wood and thorn. Agam thorn were injured us, there was bleeding and we are not saw what bite us. I am not the only family members that affected by podoconiosis, my sister also victim of podoconiosis even if not born with her, because we had no shoes and we were bare foot during collecting wood. We assume the cause of podoconiosis with being barefoot and not wearing shoes. I don't know other reasons. Podoconiosis aggravated by long walk and hard work. In our culture, we weed maize and if we work there, we became ill. When we keep our personal hygiene, we get cure. If we do mix house mud, weeding maize and house painting, the disease became worse and we became ill. It is difficult to do work, life become boring. I am normal to do farming activities but the pain of my leg makes my life worse because the disease aggravated if I touch mud. It is a boring disease; imagine if you are not working in your office regularly, you will not get any salary; our case similar to this. We are leading the worst life from our community members because of this disease. We couldn't marry and establish a family like our friends because we cannot work together with others outside of home. As a result, we lead impoverished life and we are rejected, we have no acceptance. I am not married, but I have two sons from my sexual partner because, I cannot marry. The elder son is 8 years and the smaller one became 3 years since next April. I provide support and care to them alone. I don't know the reason their father not visit and support them. He didn't see them. I saw you my shoes that you can imagine the extent of swelling of my leg. I think the father of my sons didn't visit his sons because of my swelling may make him shameful. I have no choice rather than helping my sons as far as my capacity allowed. I have land that inherited from my father and served as a source of income. Still, it is my question that

the father of my son didn't visit us; this is not only the question of new person. When my elder son asked me about his father, I said that your father died. Their father residential area not far but he didn't want to come. He already established other family and has 3 children. In our initial contact, I had nothing to lead my life when I was back from Addis Ababa. As a result, I started selling tea and coffee. We met there and he promised to rear children together and provides business to me. But, after he got his interest, he said I have nothing. There is such situation which happened on us. I delivered the second child to get his conscious with no contraceptive and to bring him towards me. But, even if there is no his support, I planned to grow my sons alone because to avoid my loneliness, it is my decision. I know there are persons who suffered to rear their children and at the end become successful. I tried this to have the future advantage and hope. Even if, currently I am not in a good situation, I am at the middle level; I am not much boring and much comfortable environment. Even, there is gap by person; we are living 3 in one roof. The discrimination levels of the community in different ceremonial event not much. I participated both in happiness and mourning. I discriminate myself from different labor base group work because of my leg podoconiosis disease and I have no capacity to work equally like them. Before now, there was special private humanitarian organization. We were organized and had appointment at the health station. The organization was provided different gifts once and stopped its functions. It didn't visit us again. But, privately one guy like you collected data and took the information. After that, there is nothing; no one see either the progress or the worse situation. There is no treatment at the government level but that private organization provided bidet for washing, shoes and soap. After that, the organization didn't come again ever. My farming area not far from here; mostly I produce maize, but it couldn't produce teff. I made contractual agreement by representation with the one who can produce it. If the amount of

produced maize 500kg, I received 200kg and the other ¾ of amount will be taken by the guy. This is the way that I lead and manage my life.

In order to get cure from podoconiocisis, I kept my personal hygiene and abstain from work. I don't want to contact with the soil. I couldn't get cure by taking medicine if there is contact with the soil and have hard work. If there is some contact with the soil, my toes make fracture and bleeding happened. During this time, the pain is so hard. During the rainy season, when I went to weeding and digging maize, in the next day or after 3 days my leg made fracture and bring bleeding. At this time, I washed it with the soap and I used "bazline". Then I got some cure. This is the medication that I got. On the other hand, far distance and long walk with bare foot increase the extent of swelling. From my life experience, there is no other medication, no change. I kept my hygiene by myself. I recommend the government to provide shoes for those who have no capacity to have it, but keeping personal hygiene is our responsibility. In our community such situation is so hard, I am better than others. The severity of podoconiosis is so painful because of their interest to change their life. They engaged in hard work and have no interest to make contractual agreement with the one who have the capacity to produce crops like me rather they tried to produce crops by themselves. The swelling of their leg is so huge but I am abstaining from that. That individuals now couldn't were shoes even socks. For me, I didn't want much change, even if my sons don't eat and wear clothes like their peers, I tried to rear them as far as I can. My elder son is grade one. Still now, I didn't go to any traditional medication rather I went to holy water. There is "Gish Abay Holy Water". I went there and got cure.

Almaz

I am 65 years old and born here. I am Christian orthodox follower and I lost my husband immediately after marriage. Now, I have no husband and am alone. I have one grandson and lived together with me. I have no educational background and am illiterate. During the durg regime, we were forced to attend basic education under the trees, but we didn't accept the program. Rather, we were interested for our farming activities like weeding and digging. In the previous, I was lived in Yedegera village which is a little bit far from here, now I am here and there. My previous work was farming; I was produce teff, degussa, niger seed and pepper. The current is also the same; it is farming. But now, I have no the capacity to do that rather I made contractual agreement with the one who are able to do. Any way farming is my source of income. The amount of crop that we produce is different in each year. In a good situation, I got up to 3kuntal , otherwise I produce 1 or 2kuntal. I mainly produce maize, this is nothing, and maize is nothing.

My main problem is my leg and eye. I want to go to higher medication but my family didn't allow me. Still, I am in painful condition. I couldn't see anything. I lost my vision also not only my leg. Podoconiosis happened when I expose to sunlight and hard work. During working hours, when my body release sweat, I remove my shoes. My leg changed its face, it seems fiery glowing and I felt coldness. At that time, I asked my family members to pour water on my leg. I said, please water, water. In last week, I went to my farming land to see my family members' activities and work progress. But, I was exposed to sunlight and the disease become worse. My family members pour water on my leg for a long time. Then, I used and poured insect flit over the wound, and I got some cure. The flit also used for ticks and flies, but now it is expensive it costs up to 100 birr and in the previous it was 70 birr. I used that and got cure. I heard the

medication of flit to podoconiosis disease from somebody. Even, I used it now. I couldn't move without using this flit. I felt much hot when the disease becomes worse. I recognize the disease when I was 25 years. The cause is related to magic. Somebody left lemon and other things on the road. When I was walking, I touched it. I touched it with my right leg but my left leg swelled. This is "muwaret" that caused my leg swelled. This 'muwaret" made from different roots.

When I took enough rest, keeping personal hygiene, I become better but hard work, and long walk aggravate the disease. When I got cure and became better, the wound part of skin removed.

After the death of my husband, I am not married other person. I have children and I gave support and care to them. They are 5 in number, but most of them died after they establish their own home. The disease also transfers to my child. One of my sons is affected by this disease. He is a teacher and always wears shoes. Now, he got better. The disease happened on him. There was no any swelling when I was married. I recognize the disease after I delivered my first child because I touched the "muwaret'' while I was walking here and there. I have no genetic factor and family related diseases. When I was living with my husband, the extent of swelling was so small. But, it became severe when my age increased and exposed to sunlight. In the initial stage, the wound was not much painful and I was not abstain from work. One of my grand children lived with me and others harvesting the land, and supports me. I have relation with my community member without problem. I have saint marry association and "senbete". We also met in funeral, "qurban" and happiness events.

I went to yechereqa health station for medication. We paid money but have no cur and it is nothing. It is only payment, has no any benefit. No one support us. The health station gave us medicine and we swallow that, some person got progress and others not. I have my own house, I

am very tired and couldn't work .When podoconiosis become sever, I used insect flit and Dama Keseye. We put Dama Kesye on hot water and washed our body. Also, when we put Dama Kesye on hot water, there is evaporation and we used that as stem bath. This makes us better feeling and cure. We have no other medication. Dama Kesye is essential medicine for me. No one support me while I am washing my bath.

Genet

I am 38 years old and was born in Enamora yechereqa Kebele. I am Orthodox Christian follower and married woman. I have 3 daughters. I am illiterate but my husband is literate. My husband dropped out from school because his leg is broken. In the previous, I was in Enamora. After some time, I was married and lived in Dava village. After that I came here. In the previous, I was making local alcohol Arkie, but now, because of my health, I stopped that and focus on local alcohol Tela. In addition, even if I have no my own land, my husband has small amount of land. We got some amount of source of income by making contractual agreement with the one who are cable of produce crop. The income is that much, it is small amount. If we cultivate the land by our self, we produce up to 4 kuntals of maize, and if it is contractual agreement, we got 1 kuntal.

I don't know the swelling either it is podoconiosis or not, but I feel better when I wear shoes. Mostly, I wore shoes. I feel pain on my leg because of the swelling. I have no other health problem. According to my father's saying, this swelling happed on me and my sister because of eating goat meat. So, the cause is goat meat. During eastern holiday, my father slaughtered goat and we eat that meat. According to his saying and belief, our leg swelled because we eat the holiday's goat meat and touched the blood. When the disease started, some fracture happened on my leg and gradually swelled, then became like this. My sister also victim of this disease, it is

sever and still she didn't use any medicine. Once, one organization provided support like shoes and I used that but my sister didn't. The disease aggravated by expose to sunlight. When I was a child, there were no any shoes, it is simply walking on bare foot, but after coming here, mostly I wore shoes. We didn't know shoes when we were in rural area. The diseases lived with me for 20 years. It is not swelled because of much work rather it is caused by exposure to sun light. Even in last week, I was exposed to sunlight while I was making Arkie. During that time, the face of my leg skin changed and new skin emerged.

I was married before 13 years. I met my husband in relation to my work. I was lived near to his home. After married him, still we are living together. Now, he has barbershop. I am going to health station for medication in related to this disease. I am normal except my leg. I was getting cure after washing the wound by the medicine which was provided by an organization. One day, before a week, because of the sunstroke, the disease revives again after 4 years. Now, my sister is in severe condition by this disease. For the future, we need the support of the government. We need medicine and shoes.

Semegn

I am 60 years old and was born here in yechereqa. I am Orthodox Christian follower. I was married and had 3 children, now I am living alone and not educated. I was living here yecherqa both in previous and now. I am leading my life by farming. My leg started swelling before 30 years. I have no genetic factor; my father's and mother's leg is normal. I didn't know why my leg swelled. When I exposed to sunstroke, my leg swelled, became huge, and the pain is so severe. During this time, I washed my body with hot water and I got better. Wearing shoes is good to reduce the extent of the severity of the diseases. When I walked on barefoot, wound

developed on my leg and creates fracture, and I couldn't walk. I wore shoes to protect the fracture and to reduce further extent of the disease. Except in the rainy season, if I am not wear shoes, I cannot move, even going to church or my neighbor. Imagine, if I removed the shoes yesterday and today, I couldn't move or walk tomorrow, it creates fracture. Wearing shoes helps us to get cure. Two of my leg swelled and have fractured especially the left one. My husband is so old and weak. I have no relative; as a result, I decided to live with this person by church promise which is called mass, and he said you have to be under my order, you cannot move without my order even going to your village and family members' home". When he said this, I was not accepting his saying and conflict arise between us, because I was also hard person. As a result, I divorced him and become blind. Then, I became monk. I have good relation with my village members. We have "senbete", community association, even we drink "tela" and we eat "enjera" together. When the disease became severe, I want to sleep and taking more rest. I have one relative, and he took me to health station for treatment, and paid 200 birr. After the treatment he asked me to back his money, but I refused that because I have no money. You know, getting money is difficult for me. As a result, I prefer death rather than paying that amount of money. After some time, the pain of my leg aggravated again and I was unable to move. During that time, I took some medication. My arm also swelled when I am doing hard work. For the swelling of my leg, one organization gave me lotion, and soap. But, for others, this organization provided soap, lotion and shoes. I had no chance to have shoes. I was appointed by that organization so many times to get shoes, but I couldn't get the shoes. I also asked the health station center but they didn't respond. When the disease became painful, I washed my leg with hot water and soap. Then, I took rest and slept for 2 or 3 days and got better. If I am not doing that, my leg swelled and expanded up to above the knee. I have my own house. For the future, we need medicine,

shoes and food items. Shoes are basic. Even if I am not going to buy the expensive shoes by 150 or 160, I bought the cheep one by 40 or 50 rather than eating. So, shoes are essential.

Alemitu

I was born in Talian Mia Gebrieal Quarit woreda. I have been living here for 40 years and rearing my children here. I am 65 years old and my religion is Orthodox Christian. I lost my husband before many years; I didn't remember when he died. Now, I have grand children and we are 5 in number in the family. Four of them are females and one is male. Even if I was learning basic education, I couldn't write and read. Currently, I am living here, which is called yangot yechereqa Mikeal. In the previous, I was working farming but now, I have nothing. My source of income is farming. I made contractual agreement with the one that can produce crop. I have no monthly income, but annually I got 4 kuntals from the contractual agreement person. I am not healthy. When I expose to sunstroke and there is injury, I become ill. Apart from this, I have no permanent health problem. I recognize this disease before 30 years. The cause of the disease was the death of my sister's son. We buried him on Monday. On the next day Tuesday, we stayed on the funeral. On the next day, Wednesday, my leg swelled. So, in my belief the cause of the disease is the funeral site. After that, I took different medicine for treatment. For the time being, I got cure. But, gradually the extent of swelling increased. During the initial stage of the disease, I was used snake poison and different leaves to get cure. There were traditional healers that know the leaves. They told us, "Yebab Alega" was good for the disease. As a result, we were chewing its roots, cuts the leaves, and flowing its liquid on the wound. The plant found on the hot area far from here. When I walked, the disease aggravated. During this time, I bought ''baslin'' from shop and I used it to paint the wound. I also wear shoes. When I wear shoes continuously, I feel pain. So, I remove it sometime. Before happening of this disease, I was healthy. When I expose

to sunstroke, the pain became sever even above the knee and the swelling become huge. After sometime, the face of the skin changed. If it is swell, no health all. There was one organization that supports shoes once, but I didn't get. I got soap and medicine. I didn't remember when I married, even the way we met because I was little child during that time. Now, I have no husband, he died. I married 3 times. I divorced them because of this disease and they died. Children who are living with me, all are lost their parents. I am rearing and support them to attend their education. The disease has no relation with genetics, but from my grandchildren who are living with me, one is affected by the disease. The affected one is my sister's daughter. Her leg is swelled. Before, the affected child coming here, she was living in hot area wollega. I have idir, association, and other events with my community members. I have also health insurance, even if it is not support me for my leg. This insurance helps me for other disease. I paid the expected annual fee. I asked the insurance for my leg, but they didn't accept this question. When the disease became sever, I slept and not going out of my home and work. I went to the market and my family when I become better. But, I am not going to farming activities like weeding. I administer my land by paying the necessary fee to the government. We eat together until our crop finished, but sometimes the crop exhaustively finished at the middle of the year, we borrow from somebody else. I don't know what I am going to do in such situation. I have no trust on the government, I am not expecting from the government. In my view, government will not support us, after this time I will die. I don't know why the government not supports us. When the diseases become sever, I prefer to go to the holly water.