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## RESEARCH ARTICLE

### PSYCHOSOCIAL EXPERIENCES OF PODOCONIOSIS PATIENTS' THE CASE OF WOLAITTA ZONE

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#### ABSTRACT

The main purpose of this study was to assess the psychosocial experiences of Podoconiosis patients. To this end, the study examined the psychosocial experiences of 120 Podoconiosis patients, of which 12 purposively selected patients participated in the in-depth interview. Patients were selected from patient register document by using systematic sampling. The instruments employed in the study were interviewer-administered questionnaire and semi structured interview. The questionnaire includes social experience measure scale, Rosenberg Self-Esteem scale, and SRQ20. Methods for data analysis employed in the study were descriptive statistics, bivariate correlation, and one way ANOVA. The results of quantitative and qualitative analyses of the data disclosed that Podoconiosis patients experience negative social experience like displacement, interpersonal relationship, marriage, and decision making adversities. The patients have low self-esteem and high mental distress. Males experience more negative social experience and high mental distress than females, and the older age group patients' experience less negative social experience and mental distress than younger Podoconiosis patients. The self-esteem of the patients decreases when their educational status increases, whereas mental distress decreases with increasing educational level. When the severity level of the disease increases, their negative social experience and mental distress increases. Sex and severity level have positive correlation with social experience and mental distress, whereas age of the patients is negatively correlated with the social experience and mental distress. Physical disability, economic challenge, absence of counseling service, bad smell of the leg, societal negative reactions were the major glitches hinder Podoconiosis patients from integrating with the wider community. On the basis of the findings, the study finally provided discussions. Providing counseling services to Podoconiosis patients, integrating the disease into the health care system of the country, and stakeholders' concerted effort to change the negative psychosocial experiences of the patients were the major recommendations of the study.

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#### INTRODUCTION

Wolaitta Zone has a total population of 1,501,112, of whom 739,533 are men and 761,579 women; with an area of 4,208.64 square kilometers, Wolaitta has a population density of 356.67. While 172,514 or 11.49% are urban inhabitants, a further 1,196 or 0.08% are pastoralists. The average family size is 8 to 10 persons per households. The infant mortality rate is 200/1000 live births. Over 95% of the population earns their living from subsistent farming, which the population makes the soil contact frequently (CSA, 2007). The elephantiasis patients' survey conducted in the seven woreda (districts) of Wolaitta Zone in September 2005 showed that the prevalence of podoconiosis exceeds 5.0%. The survey result showed that 24% of the patients are in the age group of 6-20 years. This indicates that the disease is rapidly spreading in the region (Price, 1988).

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Podoconiosis (endemic non-filarial elephantiasis) is a chronic disease characterized by the development of persistent swelling of plantar foot, which progresses to the dorsum of the foot and encompasses the lower leg slowly. It is a non-infective disease, which usually results from crystalline blockage of the lymphatic system of the limb, and almost always affects the lower limbs, especially the feet and rarely extends above the knee. Most of the time when the disease advances, it is accompanied by a number of acute episodes. Finally the disease may end up in a permanent feature of elephantiasis of varying degree (Price, 1984). In Wolaitta, digging and weeding by hands are usual ways of cultivation, especially with the elephantiasis patients who are the poorest groups in the area. These direct and indirect contacts with soil lead to higher prevalence of non-filarial elephantiasis or mossy foot disease in the area. Although the communities are fully aware that the direct soil contact with bare feet exposes them to the disease, their low income does not allow them to wear shoes to prevent the disease (Price, 1988). In general, Social stigma against people with podoconiosis is rife, patients being excluded from school, denied participation in local meetings,

churches and mosques, and barred from marriage with unaffected individuals (Ewenat, 2005). Price (1974) reports one podoconiosis sufferer as having remarked that 'it would be better to have leprosy', since the stigma surrounding leprosy has diminished as a consequence of effective medical and health care services.

Podoconiosis is thus more common than HIV infection or filarial elephantiasis in Wolaitta Zone, yet it is hardly recognized outside endemic areas (Tekola *et al.*, 2008). Podoconiosis has been present for centuries in Ethiopia, yet has received little attention from policy makers, despite its high prevalence and serious associated debility (Tekola *et al.*, 2008).

This study searches answers for the following basic research questions:

- What are the major social problems Podoconiosis patients' face?
- What is the level of self-esteem of Podoconiosis patients?
- What problems do Podoconiosis patients encounter in integrating with the wider community?

## METHODS

### Research Design

This study was conducted on Podoconiosis patients to examine psychological and social problems associated with it. In order to attain the stated objective, both quantitative and qualitative data collection instruments were employed. In the case of quantitative data, a set of questionnaires that include both close and open-ended questions were used. And qualitative data were elicited by using interview in order to explore and put the findings from participants' point of view. Therefore, both questionnaire and in-depth interview were used as tools for data collection.

### Study Area

The study site was Wolaitta Zone. It is one of the Zones in Southern Nations, Nationalities and People's Region (SNNPR). Wolaitta Zone has twelve Woredas (districts). It is among the densely populated zones in the region (CSA, 2007). The main source of livelihood for Wolaitta people is agriculture followed by trade. The language spoken in the Zone is Wolayttatwa (Wolaitnga, which is one of the languages in the Omotic family). This research was conducted in Mossy Foot Treatment and Prevention Association outreach clinics. The researcher selected these clinics based on the following reasons: MFTPA is the only organization that gives treatments to Podoconiosis patients and many patients in the Zone use the service of MFTPA much of which is available for free or at a nominal fee.

### Population

The populations of the study were Podoconiosis patients in MFTPA outreach clinic. There are 240 patients registered in the patient register in the outreach clinics during the study time.

### Participants of the Study

The participants of the study were Podoconiosis patients in the outreach clinic who attended MFTPA treatment serviced at the time of data collection. To select the outreach sites, the probability sampling techniques was employed. Since it was quite impossible to incorporate all the patients coming to get treatment in all outreach clinics, four outreach clinics among the eight outreach clinic sites were selected using simple random sampling through lottery method. Namely, Bombay, Gesuba, Gununo, and Boditti outreach clinics were selected. Participants were selected from four MFTPA outreach clinics during the study period that was conducted for two and half months. Each patient was selected from daily patient register document by employing systematic sampling method. It means out of 240 registered patients in outreach clinic 50 % (120) were selected by employing systematic sampling.  $120/240=1/2$  proportion-every second patient from the list were selected. In addition, 12 purposively selected patients participated in the face-to-face interview. The 12 patients were selected based on their age range (all age ranges included), economic activity, and their severe negative experience.

### The Research Instrument

In order to gather data a pre-tested, interview administered questionnaire comprising mainly close-ended questions and some open ended questions was used. In addition to questionnaire as the instrument of collecting data quantitatively, a face-to face in-depth interview was conducted in order to get data from participant's view point that support the data elicited from a set of questionnaire. Those questions addressed to participants in the form of interviews included: demographic characteristics, social problems and questions related to coping mechanisms and integration problems faced by Podoconiosis patients. A total of 12 Podoconiosis patients participated in the face-to-face interview by recording their voices using a tape recorder. A structured questionnaire was used for the quantitative survey. The first section of the questionnaire was seeking information related to socio-demographic issues. The second part included questions developed by the researcher to assess the social life of the Podoconiosis patients. To assess the psychological problems faced by the patients a standardized test was administered; these include,

### Rosenberg Self-esteem Scale

The Rosenberg Self-esteem Scale was used in an attempt to achieve a unidimensional measure of global self-esteem of Podoconiosis patients. It was designed to be a Guttman scale, which means that the RSE items were to represent a continuum of self-worth statements ranging from statements that are endorsed even by individuals with low self-esteem to statements that endorsed only by persons with high self-esteem. Rosenberg (1965) scored his 10-question scale that was presented with four response choices, ranging from 'strongly agree' to 'strongly disagree.' Multiple studies have been conducted to investigate the validity and reliability of the RSE. And the results have been shown that the scale is a valid and reliable unidimensional measure of self-esteem.

## Measuring Mental Distress

The self-report questionnaire was used for data collection. This instrument was developed by 'WHO' to screen for psychiatric disturbance in primary health care settings in low-income countries (WHO, 1994). The SRQ is not expected to diagnose mental illness, but was designed to indicate mental distress. It is used as a first-stage screening instrument for the second-stage clinical interview.

The SRQ20 reflects the multidimensional nature of 'mental illness' and has been used as both a mental health screening instrument at an individual level, and as a way in which depth and dimensions to their studies of broader social health issues, including: social exclusion.

The questions asked about features of common mental disorders, particularly anxiety and depression. The instruments had 24 items and were originally known as SRQ-24. Four of the items were meant to identify probable cases of psychotic disorder, but were excluded from the questionnaire after several validation studies because of very low sensitivity. SRQ-20 is now the most widely used version of the instrument and was used in this study. SRQ has been previously translated into Amharic, validated and subsequently used for epidemiological studies in clinical and community settings in Ethiopia. In the validation study of SRQ using expert clinical interview as a good standard, a cut-off point of 8/9 was recommended for general outpatient clinic attendees and 4/5 for urban community studies. For rural community studies 10/11 was used as a cut-off point (Alem *et al.*, 1999).

## Methods of Data Collection

**MFTPA APPROVAL:** before the data collection was started, the association was contacted through letters of cooperation from Addis Ababa University, Institute of Psychology in person by the researcher to explain the research ideas. Further four outreach clinic coordinators were requested to cooperate with the researcher by assisting throughout the data collection process. For all the research participants, they were given explanation about the study. They were assured that they will not be identified and that all their response will remain anonymous, and they were free to choose either to collaborate in the in the research process. Necessary clarifications on how to respond to the questionnaire were provided. The participants were encouraged to ask questions if anything was vague during the administration of the instruments and to respond honestly and genuinely.

The questionnaire was originally developed in English and then translated to Amharic and Wolaitigna language questionnaire was dispatched to 120 respondents who were attendants of treatment in the outreach clinic. Data were collected using a pre-tested, interviewer-administered questionnaire. All questionnaires were filled out, due to the close supervision of the coordinators and researcher. For those participants in the face to face interview, the consent of participants was obtained prior to any recording of their voices for data collection purpose.

The respondents had been informed of the right to refuse to be recorded or even withdraw their recording at any point of the research process. After finalizing the preparation of instruments, pilot tests were conducted, and inappropriate items were modified. The response of pilot study respondents were coded (scored) and internal consistency (reliability) of items was computed using SPSS (version 17.0). Accordingly, in the pilot testing the reliability check made has shown Cronbach's alpha of 0.731 for social experience, 0.825 for mental distress, and 0.65 for self-esteem.

## Data Analysis

The completed and crosschecked data was analyzed by employing both descriptive and inferential statistics. This task was done with the help of Statistical Package for Social Scientists (SPSS version 17). Before proceeding with the actual statistical analyses, assumptions associated with the use of each of the analysis were checked. Furthermore, alpha of 0.05 was determined for all significance levels. After data from respondents coded and organized, different statistical analysis techniques were employed based on different purposes.

- To summarize these respondents' demographic characteristics, descriptive statistics such as means, standard deviations, and percentages were computed.
- Percentages analysis was employed to examine frequency of social experience, self-esteem level, and mental distress of the patients'. And also percentages were used to examine problem of the patients.
- To examine the interrelationship among variables (demographic and psychosocial), Pearson's  $r$  was employed.
- Analysis of variance (ANOVA) was used to analyze the significant effect of each demographic variable on psychosocial experience and the extent of varying effects of each demographic variable on psychosocial experience.
- Finally, the data gathered through in-depth interview were analyzed qualitatively with the use of quotation from the interview participants' point of view.

## Findings of the Study

Different statistical techniques were employed in the analysis of variables which are included in the present study. Descriptive statistics (percentages, means, standard deviations and frequencies) were used to analyze the extent and variations of the scores of the measures considered in the study. Intercorrelations among predictor and outcome variables were computed to show the interrelationship among variables. Analysis of Variance (ANOVA) and Multiple Regression Analysis were also employed to examine the significant effects, mean differences among variables and independent effects of each predictor variables on the criterion variable, respectively. Finally, the interview result with selected Podoconiosis patients was triangulated with the result obtained from the questionnaire.

## Background Characteristics of Participants

One hundred twenty Podoconiosis patients were subjected in the present study.

The predictor variables were Podoconiosis patients' age, sex, marital status, economic activity, educational status, and severity level of the disease. Table 1 below shows some general background characteristics of the research participants.

As shown in Table 1, a total of 120 podoconiosis patients were involved in the final analysis of the data. Out of 120 patients, 57 (55.8 percent) were males and the rest 53 (44.2 percent) were females.

**Table 1. Background Characteristics of the Patients (N=120)**

No	Variables	Categories	No.	Percentage
1.	Sex	Male	67	55.8
		Female	53	44.2
2.	Age	15-19	13	10.83
		20-25	14	11.66
		26-30	36	30
		31-35	23	19.16
		36-40	18	15
		41-45	4	3.33
		46-50	7	5.83
		51-55	5	4.16
3.	Educational Status	Illiterate	76	63.3
		Read and Write	3	2.5
		Elementary	25	20.8
		Secondary	16	13.3
4.	Marital Status	Unmarried	59	49.2
		Married	43	35.8
		Widowed	11	9.2
		Divorced	7	5.8
5.	Economic Activity	Farmer	46	38.3
		Daily laborer	2	1.7
		Hand craft	9	7.5
		Trading	43	35.8
		Others	20	16.7
6.	Severity	Stage 1	20	16.7
		Stage 2	47	39.2
		Stage 3	53	44.2

**Table 2. Frequency of Podoconiosis patients' social experiences (N=120)**

No	Items	Agree		Neutral		Disagree	
		No	Percent	No	Percent	No	Percent
1	I am forced to displace my home town/woreda after I become Podoconiosis patient.	23	19.2	1	.8	96	80
2	I am forced to depart my family due to the disease.	25	20.8	2	1.7	93	77.5
3	I lost my friends due to the disease.	108	90	-	-	12	10
4	I have no power of decision making either in my home or in my local community for I have Podoconiosis.	88	73.3	1	.8	31	25.8
5	I have equal access to attend wedding and funeral ceremony as persons who aren't victims of podoconiosis.	14	11.7	-	-	106	88.3
6	It is difficult for me to use public service such as recreation center, clinic, market etc due to the disease.	109	90.8	-	-	11	9.2
7	I don't participate in religious holy days' (meskel, epiphany, Id Al Adah etc) celebration with the general community due to the disease.	108	90	-	-	12	10
8	I face interpersonal relationship problems with my spouse/children/family/neighbors after I become a Podoconiosis patient.	115	95.8	-	-	5	0.04
9	I don't like to bring myself into public meetings, social gathering, cultural practices, etc after I become a Podoconiosis patient.	109	90.8	-	-	11	9.2
10	It is difficult to get an appropriate partner for marriage(if the respondent is single) and or to my children to get married to non-patients' individuals or families (if they have family)	116	96.7	-	-	4	3.3
11	Unaffected community members' laugh/insult/rumor when they see me.	102	85	-	-	18	15
12	People point at me when they see me at different social confrontation.	92	76.7	-	-	28	23.3
13	I can freely share cloth or other materials with people who don't have the disease.	-	-	-	-	120	100
14	Even if my marriage still continues the love between my spouse and me is not as good as it was before I contracted the disease.	42	35	68	56.7	10	8.3
15	I have been proposed for marriage (for those boys and girls in appropriate age for marriage).	48	40	13	10.8	59	49.2

The table above also shows that the highest number of the participants' age ranges from 26-30 years 36 (30 percent) and 23 (19.17 percent) participants' age ranges from 31-35. Among respondents, whose age ranges from 41-45 were only 4 (3.33 percent). With respect to the educational status of the patients, 76 (63.3 percent) were illiterates, 25 (20.8 percent) off from elementary school, 16 (13.3 percent) off from secondary school and only 3 (2.5 percent) were able to read and write. Concerning participants marital status, the majority 59 (49.2 percent) were unmarried and 7 (5.8 percent) were divorced. With regard to economic activity, the majority of the patients were farmers 46(38.3 percent) followed by trading, 43 (35.8percent) and a small number of patients were daily laborers 2 (1.7 percent). With regard to severity, the majority of patients were severely affected 53 (44.2 percent) followed by a moderate level of severity 47 (39.2 percent) and mild level of severity 20 (16.7 percent).

### Social experience of Podoconiosis patients

As shown in Table 2, the overall social experiences of Podoconiosis patients are negative except for item number one and two, in these items, the number of patients experiencing displacement from their home town or home is very small compared to other types of social experiences they face. Out of 120 patients participated in the study, 96 (80 percent) are not displaced from their home or woreda (district) after they became Podoconiosis patients, and only 23 (19.2 percent) agree that they are forced to displace their home town. Concerning whether they are forced to depart from their family due to the disease, 25 (20.8 percent) have the experience of displacement, but the majority 93 (77.5 percent) have not experienced. From this, we observed that majority of Podoconiosis patients have little experience related to displacing their home town or family. But regarding to loss of friends, the majority 108 (90 percent) agreed that they lost their friends due to the disease. Table 2 also shows the question whether the participants have the power of decision making in their home or local community after developing the disease; eighty eight (73.3 percent) replied that they don't have any power of decision making in their home or local community and 31 (25.8 percent) agree that they have decision making power in their home or local community. Concerning their experience on access to participation in social ceremonies like wedding and funeral in the community, the majority 106 (88.3 percent) of the patients experienced unequal access to participate in wedding and funeral ceremonies or in other word they were not given the equal opportunity to involve themselves in these social activities. Whereas 14 (11.7 percent) replied that they have still had equal access to participate in wedding and funeral ceremonies. And also the majority 108 (90 percent) agreed that they don't feel that easiness or it is difficult for them to use public services.

Podoconiosis patients' experiences regarding to participation in religious holy days', the majority 108 (90.8 percent) cannot participate in holy days' due to the stigmatizing attitude of the society. Concerning to interpersonal relationship problems with children, neighbor, spouse, and family, the majority 115 (95.8 percent) have faced difficulty in interacting with people around them.

This is due to the stigma they face from the unaffected community members. And 109 (90.8 percent), research participants do not like to bring themselves into public meetings, social gatherings, cultural practices, etc. after they developed the disease.

And Podoconiosis patients have difficulty of getting marriage partner and for those who already have children, their children have difficulty to marry non patients' individuals or someone from unaffected family member, in line with this the 116 (96.67 percent) participants of the study responded that they have difficulty of getting the appropriate partner for marriage and to their children to get married to non-patients' individuals or families. In line with the above stated experience, majority of the patients 102 (85 percent) agreed that unaffected community members laugh or insult or rumor when they see them. 92 (76.6 percent) research participants agreed that people point at them at different social confrontation. Concerning sharing experiences of resources and other materials between patients and unaffected community members, 120 (100percent) said they have no experience of freely exchanging items between them and unaffected community members. And 42 (35 percent) of patients responded that the love relationship within their marriage is not as good as it was before. At last the majorities, 59 (49.2 percent) of unmarried Podoconiosis patients are not proposed to marriage, even if they are at their marital age. From this we can observe that the patients' social experience was off-putting. According to interviewee result, the major social problems reported by Podoconiosis patients were restricted participation in the community, interpersonal relationship problem, marriage, decision making, and displacement.

### Social Participation Problem

One of the social problems Podoconiosis patients' faced was their inability to participate in various activities of the community. This resulted from either the belief from the patients' side that the unaffected members of the community stigmatize or discriminate them because of their disease or from the pessimistic reaction of the unaffected community members towards Podoconiosis patients.

A patient described how he was discriminated by his own families as follows;

*'A Podoconiosis patient is not seen equal to others by the community. Two years ago, my dad was died accidentally. Upon his death my families didn't informed me about his death. Due to this I cannot attend his funeral ceremony. When I asked my brother why he did like this to me. An unexpected reply I got from my brother as; it's not a big deal whether you are there or we don't feel like our family members to be insulted in front of many people because of your leg. We the patients are not in a position even to attend the funeral ceremony and are left alone in the darkness.'*

And another 18 year old girl referred her difficulties she faced as a result of her insanity as follows;

*'My family members were the first to isolate me, insult me, by which I was restricted not to go outside.'*

Even if some of the patients are ready to participate in social activities they were denied the access due to the discriminating attitude of the society. One patient expressed his experience as follows;

*'Here in wolayta there is a tradition of working together in group. If someone builds a house all the neighboring people work together and help that person. And next time if you have a task to be performed those people whom you helped come and help you. After I become a podoconiosis patient no one invites me to such gathering and they are not even ready to call me.'*

According to the interviewee, some patients also didn't like to participate in social activities as this woman put her belief as follows;

*'I don't like to be with people because I don't feel comfortable in the presence of others. Most of the time I don't like to come into view in public places and gathering. It depresses me a lot.'*

### **Interpersonal relationship experiences of Podoconiosis patients**

Podoconiosis patients also face interpersonal relationship problems because of the societies stigmatizing and discriminating attitude to their disease. Majority had the difficulty in interacting with their friends, family, and relatives. A 22 year old Podoconiosis patient explained his experience as follows;

*'As you know in wolayta culture sharing of cloth among friends is very common practice when you are in need of it for some special occasion. If someone has a good cloth or shoe he will lend you at the time of request. One day I asked my intimate friend to lend me his cloth for a day and his reply was heart breaking and unexpected. He said do I burn the cloth after you have used it?'*

A high school teenager explained his interpersonal relationship experience as follows;

*'The friend whom I consider as my best, insulted me in front of many students by saying smelly boy.'*

A married woman explained the rough relationship with her husband in this way;

*'My husband always tells me that he cannot opt for divorce due to the oath he made in front of natives and the God during our wedding ceremony. We live inside the same roof but we were not sleeping and eating together.'*

### **Decision making experiences of Podoconiosis Patients**

The consequences of Podoconiosis disease also gave an impact on the ability of the patients' participation in decision making process in their community or at their home. People give much attention to their leg than to their views. A lady who was one of the victims of Podoconiosis described her helplessness to participate in decision making process in her local church as follows;

*'A year ago, there was Election Day in our local church for a leader and as like other members of the church, I too was ready to give my vote for a church leader whom I considered the capable. Upon counting the number of hands raised, the deacon didn't count my hand. Immediately, I told him that he didn't count my hand, but he didn't mind for me, rather he continued counting the other hands which were raised. He knows me well that I am a Podoconiosis victim, which was the reason for his ignorance and skipping me.'*

Podoconiosis patients have difficulty of participating in decision making not only in wider community but also at their home; which was revealed by the occurrence of one Podoconiosis patient at his home who explained the situation more clearly. He said;

*'When I lay down rules in my home my children's do not abide by the rules and ignore me and disrespect me. Before I was a Podoconiosis patient everything what all I say to them, they did it, but now the things changed as I developed the disease, they don't want me with them and are always feeling curse for having such kind of father.'*

### **Displacement experiences of the patients**

Some podoconiosis patients have experience of displacement from their home or neighbors because of the negative reaction of the society.

A young girl explained her displacement experience as follows;

*'When my leg started to swell my step dad was not happy to continue living with them. Always he insults me by using emotion touching words for instance 'kita' and makes me angry. Then I decided not to live with them went out but no one was ready to accept me as a housemaid. Now one Christian person took me to his home to live with them in turn I help them by grazing cattle.'*

### **Marriage**

One of the difficulties the Podoconiosis patients face is getting a partner for marriage for those who are in need of marriage and to their children to get married to no patient families. Many people believe persons affected with Podoconiosis including their family members should not have a loving relationship, get married or have a child and some think the question of marriage relationship is disgusting.

A 27 year old girl explained how the disease is an obstacle to get a partner in this way;

*'I am in appropriate age to marriage, but still no one proposed me for marriage. My friends are married now. I know that I am a beautiful girl, but this disease made obstacle to my prospect of getting a husband.'*

One male patient also added by saying like this;

*'Girls are not willing to marry individuals like me affected by the disease.'*

The patients also have a great probability of making divorce with their spouse after developing the disease. The unaffected partner doesn't want to continue living with the affected individual in the same roof. The experience of one woman explains this phenomenon best;

*'We were a happy family and we loved each other very much. But after I developed the disease everything changed, my husband is not happy with the situation. Before we make divorce, he comes home very late, this is unusual behavior he showed after I developed the disease. Then from time to time our relationship became rough. Finally, he told me that he don't want to live with me. Now he got married for other girl and they are living together.'*

### Self-esteem level of Podoconiosis patients

**Table 3. Frequency of Podoconiosis patients' self-esteem (N=120)**

Variable	Level of self-esteem	Frequency	Percentage
Self-esteem	High (greater than 25)	-	-
	Normal range(15-25)	22	18.3
	Low (less than 15)	98	81.6

\*\* The score ranges from 0-30. Those scores below 15 were indicating low self-esteem; scores between 15 and 25 was considered as normal, and those scores above 25 was high self-esteem (Crandal, 1973)

As can be seen in the above Table 3, the majority of Podoconiosis patients are in the lower range of self-esteem. And 22 (18.3 percent) of patients are in the normal range of self-esteem followed by zero (none) of the patients are in the higher range of self-esteem. From this we can conclude that, majority of the patients have low self-esteem. And none of the Podoconiosis patients participated in the study are in the higher range of self-esteem.

### Mental distress of Podoconiosis patients

**Table 4. Frequency of Podoconiosis patients' mental distress (N=120)**

Items with 'yes' response	Number of respondents	Percentage %
2	4	3.3
4	2	1.67
8	5	4.17
10	3	2.5
**11	6	5
14	9	7.5
15	11	9.17
16	18	15
17	19	15.83
18	16	13.3
19	27	22.5

\*\* to decide the existence of mental distress cut-off score is used, most of the time the cut-off points used in studies among low-income developing countries rural community is 10/11 (WHO,1994) means if the individual respond yes for 10/11 items in SRQ20 we can say the individual has mental distress, if below 10/11 'yes' no mental distress. But I used 11 as cut-off point because in previous studies in Ethiopia 11 was commonly used as a cut-off point (Alem, 2002).

As can be seen from Table 4, the majority of respondents 27 (22.5 percent) said 'yes' for 19 items in SRQ20, followed by 19 (15.83 percent) patients' for 17 items in SRQ20. The least of all is that 2 (1.67 percent) patients said 'yes' for four items

in SRQ20 scale. Therefore, we can refer from table four that 14 (11.7 percent) of Podoconiosis patients involved in the study have no mental distress. The majority 106 (88.3 percent) of Podoconiosis patients suffer from mental distress.

### Psychosocial experiences across age, sex, educational status, marital status, economic activity, and severity of Podoconiosis patients'. (N=120)

**Table 5. Number of cases, Means and Standard Deviations (Sex vs. Psychosocial experience) (N=120)**

Sex		Social experience	Self-esteem	Mental distress
Female (n=53)	Mean	33.3774	12.8113	17.2830
	Std. Deviation	6.32828	1.93208	3.60756
Male (n=67)	Mean	35.5672	13.0896	18.2985
	Std. Deviation	3.89337	1.67632	1.53756

As it can be seen from the above Table 5, there was no significant difference in the mean score of participants' sex on their self-esteem. When the mean scores of participants' assessed, male patients mean (M= 13) on the self-esteem were not significantly greater than the mean scores of their female counterparts (M=12.8). But there is a significant difference between males and females in regard to social experience. When the mean scores of females (M=33.377) and males (M=35.567) compared, males mean negative social experience is higher than females mean negative social experience, this means males have more negative social experience than females. With regard to mental distress, there was a very slight difference between males and females, males were slightly higher in mean score of mental distress (M=18.298) than females (M=17.28), which refers to males were a slight higher than females in experiencing mental distress.

**Table 6. Number of cases, Means and Standard Deviations (age vs. psychosocial experience) (120)**

Age		Social experience	Self-esteem	Mental distress
15-19 (n=13)	Mean	32.3077	12.5385	15.6923
	Std. Deviation	3.90266	1.56074	1.70219
20-25 (n=14)	Mean	34.5000	13.1429	17.6429
	Std. Deviation	5.24404	2.07020	2.81772
26-30 (n=36)	Mean	35.7778	12.9722	18.5278
	Std. Deviation	4.00079	1.55813	.60880
31-35 (n=22)	Mean	36.7273	12.7727	18.6364
	Std. Deviation	2.45302	1.37778	.72673
36-40 (n=19)	Mean	33.0526	13.2632	18.001
	Std. Deviation	4.51508	2.20711	.60698
41-45 (n=4)	Mean	36.0000	12.7500	19.0000
	Std. Deviation	1.41421	2.98608	.00000
46-50 (n=7)	Mean	29.5714	13.0000	15.5714
	Std. Deviation	8.54122	1.41421	5.88380
51-55 (n=5)	Mean	22.6000	13.4000	10.6000
	Std. Deviation	6.38749	3.13050	6.02495

As can be seen from the above Table 6, there was a difference in mean score of social experience among 15-19 age group (M=32.3) and 20-25 age group (M= 34.5), 36-40 age group (M=33.05).

There was also a difference in mean score of social experience between 51-55 age group (M=22.6) and 46-50(M=29.57). 46-50 age group mean social experience(M=29.57) is different from mean social experience of 41-45,36-40,31-35,26-30,20-25,15-19 age group. Patients' social experience between age group 15 - 19 and 41-45 have differences and the experience of age group 46-50 and 51-55 have a great difference compared to other age groups. And the age groups 51-55 have the lowest mean score on social experience. This refers the age group 51-55 experience less negative social experience compared to other age groups. When we come to self-esteem, the mean score across different age group has no difference on self-esteem. In other word when compared the mean score of self-esteem across different age group, their mean score have no much difference. In regard to mental distress, there was mean difference among 41-45 age groups (M=19) and 15-19 age group (M=15.7) and 20-25 age group (M=17.6). And also between 46-50 age group(M=15.57) and 41-45 age group(M=19), among 51-55(M=10) and 46-50, 41-45,36-40,31-35,26-30,20-25,15-19 age group. When the mean score for mental distress compared across different age group, the mean score for age group 51-55 was the lowest of all. And the age group 46-50 have also low mean score compared to 15 -19 up to 41-45 age group.

Hence, depending on the above table, the mean social experience of podoconiosis patients with age range 51-55 was less negative than other age groups. It means with increase in age, the negative social experience of podoconiosis patients decrease as can be seen from the mean score in the table. On the other hand, the mean score for mental distress of the patients with older age was lower than that of mean mental distress of young and middle aged patients. From the table, we can infer that with increasing age, the mental distress decreases. And there was no difference in mean score across different age groups in regard to self-esteem. The mean score for self-esteem across various age groups does not show much difference.

As the mean score depicted in Table 7 manifested that the social experience of the subjects across different educational statuses didn't showed much difference except for read and write. On the other hand the self-esteem of the respondents becomes lower when their educational status became increased. As opposed to self-esteem, mean computation for mental distress shows, the degree of mental distress increased as the educational level increased.

As can be seen from the above Table 8, the mean score for social experience showed that the widowed patients have a higher mean score (M=37.7) in negative social experience than other marital status groups. This refers that the widowed experience more negative social experience than others. In regard to self-esteem, there was no much mean difference across marital status. That means the mean score for self-esteem across marital statuses had no difference. In regard to mental distress the married ones have lower mean score for mental distress (M=16.93) compared to other marital status groups. This refers the married ones had lower mental distress than other marital status group.

As can be seen from Table 9, there was mean difference between laborers (M=29) and farmers (M=33.43), farmers (M=33.4) and hand craft (M=36.33), farmers (M=33.43) and trading (M=35.6). The mean score for social experience of laborers is lower than that of other patients involved in other economic activities(M=29), this shows that laborers had less negative social experience compared to others. When we come to self-esteem, there was no mean score difference among various economic activities. And also there was no mean difference for mental distress across different economic activity.

**Table 7. Number of Cases, Means and Standard Deviations (Educational status vs. psychosocial experience) (120)**

Educational Status		Social experience	Self-esteem	Mental distress
Illiterate (n=76)	Mean	34.9211	18.1711	13.000
	Std. Deviation	5.20452	1.78429	2.59997
Read and write (n=3)	Mean	30.6667	18.0011	17.9868
	Std. Deviation	10.11599	2.30940	9.53939
Elementary (n=25)	Mean	33.9600	12.6800	15.6875
	Std. Deviation	5.35786	1.62583	1.66633
High school (n=16)	Mean	34.8125	10.8750	18.1200
	Std. Deviation	3.95337	1.78419	1.49304

**Table 8. Number of cases, Means and Standard Deviations (Marital status vs. psychosocial experience) (N=120)**

Marital Status		Social experience	Self-esteem	Mental distress
Unmarried (n=59)	Mean	34.4576	12.9831	18.3390
	Std. Deviation	4.57626	1.63466	.97574
Married (n=43)	Mean	33.9767	13.0233	16.9302
	Std. Deviation	6.57009	2.09862	4.19407
Widowed (n=11)	Mean	37.7273	12.8182	18.4545
	Std. Deviation	2.49363	1.77866	.68755
Divorced (n=7)	Mean	34.7143	12.7143	18.4286
	Std. Deviation	1.25357	1.25357	1.13389

**Table 9. Number of cases, Mean and standard deviations (economic activity vs. psychosocial experience) (N=120)**

Economic Activity		Social experience	Self-esteem	Mental distress
Farmer (n=46)	Mean	33.4348	12.9783	17.0652
	Std. Deviation	6.08697	2.00543	3.82624
Laborer (n=2)	Mean	29.0000	13.0000	18.5000
	Std. Deviation	12.72792	1.41421	.70711
Handicraft (n=9)	Mean	36.3333	13.0000	18.5556
	Std. Deviation	2.23607	1.32288	1.01379
Trading (n=43)	Mean	35.6279	13.0930	18.5814
	Std. Deviation	4.57750	1.75681	.58686
Others (n=20)	Mean	34.8500	12.6500	17.7000
	Std. Deviation	3.81514	1.66307	2.55672

**Table 10. Number of cases, Means and Standard Deviations (severity vs. psychosocial experience) (N=120)**

Severity		Social experience	Self-esteem	Mental distress
stage 1 (n=20)	Mean	33.8511	13.1064	15.3191
	Std. Deviation	6.21701	1.68585	2.90372
stage 2 (n= 47)	Mean	35.0377	13.000	17.7000
	Std. Deviation	4.59519	2.02414	3.68962
stage 3 (n=53)	Mean	37.200	12.8302	18.3774
	Std. Deviation	4.38951	1.62594	.96529

**Table 11. Intercorrelations among Predictor and Outcome Variables (N= 120)**

Variables	Intercorrelations							
	2	3	4	5	6	7	8	9
Sex	-.388	-.092	-.079	.807**	.36	.210*	.077	.188*
Age		-.466**	.387**	-.476**	-.08	-.286**	.07	-.325**
Educational status			-.275	.025	.032	-.046	-.103	-.024
Marital status				-.060	.018	.083	-.0033	-.051
Economic activity					-.026	.175	-.023	.165
Severity						.25**	-.051	.133**
Social experience							.003	.523**
Self-esteem								.175
Mental Distress								-

\*\* p&lt; .01

\* p&lt; .05

As it can be seen from Table 10, there existed mean score difference on social experience across severity. The mean score for social experience of stage one is the lowest of all; which refers to low negative social experience for stage one patient compared to others. With regard to self-esteem there is slight difference across severity levels. In other words, according to the table when the severity level increases, there is a slight variation on their self-esteem. From the table we can see that when the severity level increases the self-esteem of the patients very slightly decreases. With regard to mental distress there exists a mean differences between the mean of stage 1 (M=15.3) through the mean of stage 2 (M=17.7) and the mean of stage 3 (M=18.4). From this we can see that stage three patients experience more mental distress than stage 2 and stage 1. And stage 2 patients experience a higher level of mental distress than stage 1 patients.

#### **Bivariate Correlation among the Predictor and Outcome Variables.**

Another point was to check whether there exists a relationship between predictor variables (patients' sex, age, marital status, educational status, severity and economic activity) and psychosocial experience. Table 11 – below shows the intercorrelations among these variables.

As it can be observed from the bivariate correlation results in Table 11, the predictor variables (age, sex) revealed statistically significant correlation with social experience and mental distress. Specifically, sex of the patient had positive correlation with social experience and mental distress. This means the males experience more negative social experience and mental distress and the females experience less negative social experience and mental distress. The age of the patient was negatively correlated with social experience and mental distress. When the age of the patients increases, the mental distress decreases and when the age of the patients decreases, the mental distress increases. And also when the age decreases the negative social experience of the patients' increased and when the age increases the patients negative social experience decreased. In other word, the older podoconiosis patients' experience less negative social experience compared to younger and middle-aged patients. The negative social experience of the young and middle-aged patients is higher or intense compared to that of older ones. And severity level of the disease is also positively correlated with social experience and mental distress. In other words, when the severity level increased from stage 1 to stage 2 to 3 the negative social experiences of the patients also increased and similarly when the severity decreased from stage 3 to 1 the negative social experience of patients decreased.

And the mental distress level of the patients also increased with increase in severity and decreased with decrease in severity. However, the predictor variables, educational status, marital status, and economic activity, did not show any significant relationship with any of the psychosocial experience.

### The effects of sex, age, educational status, marital status, economic activity, and severity level of psychosocial experiences of Podoconiosis patients

Once the bivariate correlation analysis among the predictor and outcome variables was examined, the next task was testing the effects of each predictor variables on the three types of outcome variables namely social experience, self-esteem, and mental distress. Hence, analysis of variance (ANOVA) was conducted for the three types of psychosocial experience, taken simultaneously as outcome variables, with podoconiosis patients sex, age, educational status, marital status, economic activity, and severity level. Hence, in this section the independent effects of each predictor variables on three types podoconiosis patients' psychosocial experience taken as outcome variables was examined using analysis of variance. The results of ANOVA tests are summarized in the table below.

**Table 12. Analysis of variance: Independent variables and outcome variables (Social experience, self-esteem, and mental distress) (N=120)**

Effects	Outcome variables	df	F	Sig.
Sex	Social experience		5.431	.021
	Self-esteem		.71	.400
	Mental distress		4.324	.040
Age	Social experience		2.954	.000
	Self-esteem		.900	.618
	Mental distress		3.408	.000
Educational status	Social experience	119	.798	.497
	Self-esteem		2.277	.043
	Mental distress		3.638	.015
Marital status	Social experience		1.567	.20
	Self-esteem		.085	.968
	Mental distress		2.726	.047
Economic activity	Social experience		1.550	.180
	Self-esteem		.088	.994
	Mental distress		1.970	.088
Severity	Social experience		.804	.450
	Self-esteem		.297	.744
	Mental distress		1.992	.141

**Table 16. Frequency table of integration problem reported by Podoconiosis patients**

Item	Response	Frequency	Percentage
What problems do you have in relation to integrating yourself into the general community?	Physical disability	64	53.3
	Absence of counseling service to enhance their well-being	20	16.7
	Bad smell of the leg.	6	5
	Societal negative reaction	14	11.7
	Economic	16	13.3

As can be seen from the Table 12 above, the ANOVA test of significance revealed the effects of sex on podoconiosis patients social experiences at ( $F(1,118) = 5.431, p < 0.05$ ) and mental distress level of the patients at ( $F(1,118) = 4.324, p < 0.05$ ). Similarly, the result of ANOVA test of significance depicted the significant effect of podoconiosis patients age on social experience of the patients at ( $F(30,119) = 2.95, p < 0.05$ ) and mental distress level of the patients at ( $F(30,119) = 3.415, p < 0.05$ ).

And also as can be seen above in the Table 12, educational status had a significant effect on mental distress of podoconiosis patients ( $F(3,119) = 3.638, p < 0.05$ ) as well as on their self-esteem ( $F(3,119) = 2.277, p < 0.05$ ). Social experience of podoconiosis patients is not influenced by educational status of the patients as depicted in the above table at p-value of 0.05. And as depicted above in the table 12, marital status had a significant effect on mental distress of podoconiosis patients ( $F(3,116) = 2.7, p < 0.05$ ). And the other outcome variables in the table are not influenced by marital status of the patients at p-value of 0.05. But economic activities of the patients have no effect on outcome variables, namely social experience, self-esteem, and mental distress of the podoconiosis patients at p-value of 0.05. Similarly, as can be seen in the above Table 12, the level of severity of the disease has no effect on the outcome variables at p-value of 0.05.

### Integration problems of podoconiosis patients

As can be seen from Table 16 above, Podoconiosis patients reported problems which hinder them to make integration with the wider community. Among the factors, physical challenge was reported by 64 (53.3 percent) of Podoconiosis patients.

The next problem as rated by the respondents was the absence of counseling service provided to them in order to make them easily integrate with the community. Societal negative reaction towards the patients, economic challenge, and bad smell of the leg were reported as the major challenges in the integration process by 14 (11.7 percent), 16 (13.3 percent), and 6 (5 percent) Podoconiosis patients respectively. To support the above findings from the patients' point of view, the researcher triangulated the finding with the interview result and the

interview result showed major integration problem faced by Podoconiosis patients are; physical and economic, absence of counseling service, stinky smell of the leg, and societal negative reaction towards the disease.

### Physical and Economic Challenge

According to the interview finding, the major problem Podoconiosis patients' face in integrating themselves in communities' activity was resulted from physical disability and this problem in turn led to economic challenge. The patients had lower limbs affected and there was a significant association with difficulty in walking, standing for a long time, and using the toilet, this in turn may lead to loss of job and inability to work. This challenge was also an obstacle not to perform appropriate activities in the range of their potential so as making obstacle not to make economic integration within the community. In other words, they cannot perform what they are supposed to perform at the appropriate time and place compared to unaffected community members. Due to inability to walk long distance traders can't trade. Farmers are unable to farm their land due to associated pain in their legs. Sometimes even the patients are unable to participate in funeral ceremonies and other social activities that need them to walk long distance which in return contributed to isolation from community activities. Students miss class due to inability to walk and associated pain. The disease also forces students to drop out of school due to inability to walk long distances. This handicaps them not to become part of the educated labor force. One high school student who is a victim of podoconiosis put his physical disability in this way;

*'I always wake up early in the morning to go to school so as to be on time, but it takes me more than 3 hours to reach to my school. In contrary the healthy students from my neighbor reach within 30 -50 minutes to the same school. Always I arrive late for school and the teachers don't let me into the class. No one understands my problem. The students who come after me reach the school on time and laugh on me by saying he walks like 'tortoise'. I am a useless person because you know I can't even walk as sick people. Even I don't have the privilege of sick person. My situation is the worst of all. You feel sick all the time.'*

A girl whose livelihood is dependant on trading explained how her physical challenge made an obstacle for her not to integrate with the general community as follows;

*'It is very difficult to go to market regularly to sell and if you don't sell regularly the income you will earn become less and even don't help you to fulfill your basic needs. And we the patients should go too far market outside of our Keble because people in our Keble don't buy our items, they know our disease. Because of difficulty of walking to market I will not involve myself regularly in trading so now I am becoming poor. God only have a way to my problem. Even if I do have knowledge of market and trading as unaffected people with Podoconiosis, because of inability to walk long distance and stand I am not involving myself regularly in trading. This situation leads you to be totally dependent on others and people even your families are not happy to help you because*

*they see you as a burden not as any productive individual. So the only left option is that becoming beggar. I am the unluckiest person in this world, it is better to die than to live.'*

And also the swollen limb affected the work due to physical challenge they face. Research participants reported incapability of carrying out their daily chores and loss of jobs due to the disease.

One farmer explained how the physical challenge due to the disease affected his work as follows;

*'I am destined to be poor because you know I am not capable of farming because of the physical difficulty associated with the disease. If you can't farm and see after your land appropriately, your fate is to beg people for food. This is why I say I am destined to be poor. The acute attack of the disease lasts for a week and sometimes for two weeks. This time may be an appropriate time to seed or do some important activity related to farming. If you don't sow in appropriate time what is your fate? ...begging only begging.'*

Another podoconiosis patient reported how the physical challenge due to the disease made him jobless as follows;

*'I was selected to join military personnel based on competitive criteria, then it took me one and half year to finish the course. Right after I finished my training something strange started to happen on my leg that is my leg started to swell. No one was aware of the problem, but it continued to enlarge from time to time. At last I realized that I will be pushed out of the military because I can't contribute for them with this swollen leg. I bitterly cried at that time for one thing I am losing my job which I supposed to lead my livelihood; second the pain of the leg combined with hopelessness forced me even to attempt suicide. But God Almighty is good in all the time, it is because of him I live currently but in the face of people I am a useless person.'*

And a girl added on the above idea about how she lost her career. In the past, she was a member of cultural dance group and now she no longer dance and told me how she lost her dream due to the physical challenge related to the disease. She said,

*'I am a member of cultural dance group and we used to show our dance performance at different places and at various festivals. At that time I am really enjoying my life because am doing what I am supposed to do. Since my childhood period my dream was to be a professional dancer, that was my dream and also I thought that I am achieving my dream when I see people appreciating and praising my performance after each show, but unfortunately my leg started to swell then am forced to quit my dance and left the team. You know what this means to me? It means I lost my direction. Therefore, currently I am aimless and hopeless person in this world; the one who lost her dream.'*

One of the major problems of podoconiosis patients' is an absence of counseling service which supports them in order to make productive life. Especially in wolayta there is no counseling service provided to the patients in order to cope-up

in the face of psychosocial problems they face in their day to day activities. According to interviewee, availability of counseling service is crucial to cope up with the society's negative reaction and to have good looks towards them. In contrary, unavailability of counseling service in their locality magnifies their problem. The experience of another patient explains more about the importance of the counseling service and he put his experience as follows;

*'When my leg started to swell I didn't have any knowledge of why my leg started to swell or the cause behind this phenomenon. Immediately I went to health station to get treatment and to know my problem but no one was able to give me any information and treat my problem. I shocked a lot and started to cry day and night. After that, some people told me about the service delivered at Mossy Foot Treatment and Prevention Association. I decided to go to Sodo clinic for accessing treatment; they gave me advice about how to appropriately handle the hygiene of my legs, offered a shoe. After getting the information from the outreach clinic I started feeling good but still we are not getting counseling service how to handle the social and psychological challenge we face. Knowing the skills how to behave and interact in the face of stigma and discrimination is helpful and you become productive, increases your self-efficacy and self-esteem. But we don't have such skill because there is no service delivered to us. If you see HIV/AIDS patients even if they know that they have a positive result, they have given counseling support in order to make them handle their emotional problems and mental stress in the face of challenge they encounter. We need such kinds of services.'*

### **A.Smelly Smell of the Leg**

One of the challenges podoconiosis patients face in integrating with the general community is that the bad smell of their foot. According to my interviewee, the stinky smell of the feet forced them to isolate themselves from the social gathering, various ceremonies; in some cases, students miss or drop school due to the bad smell of the leg.

Accordingly, one high school student put the reaction of other students in the classroom whenever he has difficulties with his legs during attacks, which is mostly associated with bad smell, have contributed to the low performance and has caused him to drop out of school as follows;

*'My foot has a very bad smell. It has also a watery discharge. All students gather when they see me coming to school and all chants by saying the 'rotten egg' is coming. Some hold their nose when I pass them; some laugh and run away from me. When I enter into the class all students don't take a sit around me. Many students reported to the head of the school that they are not able to attend the class due to the smell of my foot in accordance with the request of the students, the school master told me not to come to school. In reality, I didn't even feel free to go to school because I feel ashamed. I have a potential as my age mates to learn, but after I developed this disease, my result started to drop because I don't listen to the lessons given in the classroom. And finally I quit my education in order to*

*avoid the feeling of shame and anxiety. It is better to stay home than going to school.'*

This stinky smell of the leg is not a problem only to students but also have a negative impact on others at various social gatherings. Here an experience of a man shows how the bad smell has an impact in their day-to-day life;

*'Our keble called the residents for a meeting on a special issue. After the chairperson of the keble presented the goal of the meeting and briefly explained the issue. Up on fear of my feet smell I took a seat at far behind of the room. Then a turn comes for the participants to raise question, give suggestion, and comment. As a resident I started to give a suggestion on the issue, but in the middle of my speech I heard someone saying 'how the swollen gives an idea in this room in front of pure people.' And he repeated by saying you man we are pure people and we not smell like a rotten egg. If you want to give an idea search for your mates, especially those who smell like rotten egg. And many were laughing while the person speaks and in turn I quit my speech. Went home depressed and upon arrival to my home started to cry bitterly.'*

### **Societal Negative Reaction towards Podoconiosis Patients**

Patients reported that societal negative reaction towards the people affected their social life. Due to the societal negative reaction they reported having problems interacting with the community, friends and family. The society's negative reaction towards patients reflected in many ways among them giving negative name or label to the patients, insulting, discriminating in various ways, refusal to get married to the patients and to their family member etc.

According to an old man podoconiosis patient, the community's insult at various social confrontations and gathering anyone who sees a podoconiosis patient anywhere laughs, insult, and discriminate the patients. Many people show signs of disrespect towards the patients; by separately sitting from them and by not inviting them in different societal gathering and ceremonies. The man told his experience as follows,

*'They insult us (podoconiosis patients). They call us kita/tobiya which means in Amharic 'mege eger' and in English 'swollen'. If podoconiosis patient students come on top in the class the teachers will say 'this crippled has answered this question. How come you don't answer anything? If you are at the event of social gathering, in the first place no one gives you the chance to give an idea but if in chance you get the opportunity to raise an idea no one listens to your idea all refer to your leg they say look at him there is no difference between his legs and waist. How dare he is to give an idea? There is a tendency of looking down us in various social settings.'*

And also neighbors of the patients insult at different ways. Due to this the patients feel shame and in turn they prefer to live in their own social world isolated from the general community. A widowed woman explained how her neighbor negative action affected her social life and led her to depression and hopelessness as follows;

*'Once, while my neighbor was doing her pee right in front of my door, getting angry at the scene, I asked why she was doing it. The reply I got was completely shameful and disappointing. She said, "my pee is not wash down of a crippled rather it's clean and harmless.'*

This negative societal reaction is not bound only to rough neighborhood interaction, but also reflected in difficulties the patients face to get a marriage partner to them for those in appropriate age to marriage and to their children for those who have families. One unmarried man explained how he is not capable of getting married till now and the difficulties he faced while trying to get a marriage partner. He put his idea as follows;

*'When I am 25 years of age, I proposed a girl from my church for a marriage after a week she accepted my bid. Then, immediately after she told me that she is not ready for a marriage the reason she provided me not to accept the offer is that she decided about the issue without deeply thinking it. But the true reason for not accepting my bid is that she heard that I am a podoconiosis patient from my neighbors. Most of the time While I ask girls for a marriage I will wear long and wide trouser so that the girls didn't detect the problems related to my leg easily. Once they identify that I am a podoconiosis patient, they refuse my offer to marriage, though my case is not severe. I can easily walk, can stand relatively long hours, and use shoes since mine is stage one, but if girls hear once I am a podoconiosis case they refuse to marry. After the failure of my first marriage proposal I asked 8 girls in a row for a marriage, when I ask them they say okay but after a while they refuse. I know why am not married until now it is my leg nothing else. Even if my leg is not severely affected it becomes an obstacle to get life partner.'*

The problem with marriage is not only limited to the patients. It is also reflected on patients' families. This is expressed by the way people dig into the family history for the evidence of podoconiosis before any marriage arrangement. No matter how healthy, he or she is during marriage the family history of podoconiosis matters more than anything. A podoconiosis affected father who has seven healthy children, 3 girls and 4 boys asked about whether his children's can able to marry someone from a healthy family or whether those children in a marriage zone was proposed for marriage from someone from unaffected family, the man responded as follows;

*'I do have 3 children in appropriate age for marriage but I hope it is difficult for them to get married to someone from unaffected family members. He/she should look for his/her mate from the swollen. You know a healthy man wouldn't ask my children's for a marriage because he/she is a child of a father affected by a podoconiosis so he/ she too a patient. There is no difference, I mean my disease affects my children's' marriage prospect no matter whether they are healthy or not.'*

## DISCUSSION

The current study revealed that podoconiosis patients experience stigma and discrimination.

The study of Ogden and Nyblade (2005) showed that stigmatized individuals face psychological stigma like separating shard objects, like eating utensils and cloths at home and isolating them from public places. The current finding agrees with the finding and revealed that podoconiosis patients can't freely share utensils or materials with unaffected community members and also are isolated from public places. Moreover, they face verbal stigma that holds the direct practices like pointing fingers, insulting which also aligns with the findings of Ogden and Nyblade (2005). According to Ross and Sue (2003) stigma manifest itself in several specific forms depending on the various cultures of a given society. The following are some of the common forms: finger pointing, ridiculing, labeling, rejecting, isolating, shaming, separating, not sharing utensils, staying at a distance which all align with the findings of the present study in which podoconiosis patients feel shame, isolated, are not able to share resources with unaffected community members. According to the current study podoconiosis patients had problems interacting with the community. This resulted in patients' isolation and withdrawal from society, avoiding social gathering and activities, bitter and depressed about their situation even within their own families. Similar results were reported from the Gampaha district of Sir Lanka by Wijesinghe (2007), where elephantiasis patients experienced feelings of being rejected by society.

Furthermore, a study conducted by Ewenat (2005) revealed that podoconiosis patients face difficulties during marriage arrangements, and due to the strong belief of the society that the disease is hereditary willingness to marry podoconiosis patients is nil. The current study aligns with the finding in which the major difficulties podoconiosis patients encounter is finding a marriage partner for those in marriage age and to get a marriage partner from unaffected family members to children's of families who are victims of podoconiosis. And the finding of Ewenat (2005) further elaborates that people with podoconiosis are isolated from social events like funerals, wedding and market which are the measures of social acceptability in the society. The findings of the current study aligns with the above finding in which podoconiosis patients are isolated from various social events and also according to Ewenat podoconiosis patients have no equal representation in events. And the current study also revealed that podoconiosis patients have problem of decision making not only in their community but also at their home, too. They don't have equal decision making power in their community as well as at their home.

In addition to the above stated ideas, the current study shows that males have more negative social experience than females. This may be a result of patriarchal structure that prevails in the wolayta community which may be a reason for males to have more negative social experience than females. In patriarchal structure males are expected more in various streams, if they fail to be successful they easily subjected to stigma by the community referring them weak and incapable. They also easily isolate themselves from various social activities because they feel that they are insufficient to meet the society's criteria by having what the society expects from them. The disease definitely interferes with many spheres in their life; they are unable to work, participate, and involve themselves in decision making process of the community.

This in turn facilitates to isolate them. The finding also shows that the older age group podoconiosis patients face less negative social experience than other younger age groups. This may be a result of narrow social sphere the old ages have. The limited social interaction with the society due to decreased strength and may be long time exposure to stigma leads the older ages to face less negative social experience than the younger age groups. In contrary, the younger podoconiosis patients have wider social sphere which exposes them to different negative societal reaction which facilitates their life experience to be bitter than the older ones.

Among different marital status groups the widowed face more negative social experience than the other marital status groups. The widowed negative social experience may be because of the multiple psychosocial problems they face and also they loosed what they have which is a different experience from others. The current study also revealed that laborers face less negative social experience followed by farmers. Laborers face less negative social experience may be due to the flexible nature of their work means they work when they feel well at the same time they work while they get job. And sometimes they are a candidate for jobs that others do not want to do. Regarding to severity the current study revealed that stage three patients experience more negative social experience than the other lower stages. The severe stage group patients face more negative social experience due to the easy visibility of the disease that exposes them for negative social experience. The current study also showed the relationship that exists between age & sex and social experience. Regarding to whether the background variables have an effect on social experience, the current study showed that sex and age have a statistically significant effect on social experience of the patients. And multiple regression analysis revealed that background variables combined together predict the social experience of the podoconiosis patients. The finding of the current study showed that podoconiosis patients have low self-esteem resulted from the disfigurement of their leg. They are ashamed of their leg. According to the study, majority fall in the lower range. This finding agrees with the study conducted in Dominican Republic by Bobbie *et al.* (2008) that revealed elephantiasis patients were embarrassed due to the disfigurement of the leg. According to the study elephantiasis patients with less severe stages of the disease also described that they are ashamed of their leg. Feelings of shame had internalized in elephantiasis patients' coupled with hopelessness and despair. According to the study elephantiasis patients' situation was so psychologically distressing that they feel hopelessness and described great despair.

The mean computation result revealed that when the educational level of the patients increases the level of self-esteem decreases. This might be a result of dissatisfaction they encounter when they start to compare themselves with others. And the multiple regression analysis revealed that background variables combined together predicts self-esteem. It is well established that people who suffer from chronic medical condition have an increased risk of developing mental distress. Podoconiosis is such a disease, resulting in disfigurement and disability as a result of lymphatic system damage. As can be seen from the finding people affected by podoconiosis have

additional social problems such as divorce, unemployment and displacement from their areas of residence, compared to the general population. Regarding to mental distress 88.3 percent of podoconiosis patients are affected by mental distress. The prevalence of mental distress in this population is higher when compared with other hospital-based study on leprosy patients reported by 34.6 percent patients. The high prevalence in the current study might reflect to the particular psycho-social stress experienced by this group of patients. And at least leprosy patients know that the community have awareness towards the disease and the community are getting awareness about the disease from efforts from various organizations and also Ministry of health internalized the treatment of leprosy in the health care system of the country but in the case of podoconiosis patients their problem is not investigated well and level of awareness among unaffected community members is very low plus it is not incorporated to the health care system of the country. In this study males experience higher level of mental distress than females as seen from the mean computation. The finding agrees with the finding conducted on leprosy patients which shows higher prevalence of mental distress in males than female leprosy patients (Alem, 2002). It might be that women in this study had reservations about reporting symptoms of mental distress. The finding of an association between old age and mental distress is consistent with the literature. From the mean score we can easily see that the old ages experience less mental distress compared to young ages.

This finding agrees to those from Ethiopian community study by Tafari *et al.* (1991) showed a declining trend with increasing age groups in mental distress whereas contrary to the finding educational status. The current study showed that the illiterate groups experience lower mental distress. This finding was contrary to the finding by Tafari (1991) which says there is significant association between illiteracy and mental distress and illiterate groups were at a higher risk for mental distress. The current study also revealed that the married ones have lower mean score for mental distress compared to other marital status groups. This result may indicate us the married ones have once achieved their life goal that is; the task of marriage, this feeling may help them not experience intense mental distress compared to other groups. However, this finding was contrary to those which say single group suffered from mental distress to a lesser extent in all age groups than the married, widowed, and divorced groups (Alem, 1999) because the current study shows that single group experienced higher level of mental distress than the married ones. The mental distress level of Podoconiosis patients increase when severity level increases. This might be due to when the severity level increase the visibility and the psychosocial problem the patients face increases. Moreover, age, sex, and severity level have shown a relationship with mental distress and all background variables combined together predict mental distress.

Generally, the current finding agrees with the work of Bobbie *et al.* (2008), which says elephantiasis patients experience depression and most of the patients cry more often due to their disease. The finding of current study revealed that Podoconiosis patients face integration problem with the

community. As can be seen from the respondents report, problem of integration arises from physical disability, economic challenge, and absence of counseling service in the area, negative societal awareness due to low awareness. There is no any tendency to integrate the Podoconiosis care in health center. A campaign was made by Mossy Foot Treatment and Prevention association to force government to incorporate the treatment of Podoconiosis in the national health system, but is not achieved yet. There is no successful public education or awareness campaigns to decrease the society's negative reaction towards the victim of Podoconiosis, patients education programs or counseling, or in creating a spirit of cooperation between care providers, people affected by the disease and the public. Therefore, the patients face stigma and discrimination in their day to day activity which led them not to integrate effectively with the wider community. According to Van Brakel W. (2006) the first step which can be taken to go into integrating the stigmatized and segregated people into the general community is by reducing stigma. To make integration effectively, it is important to work not only on preventing physical impairments of the patients but also to eliminate the social stigma which can be prevalent causing for social participation restriction among stigmatized individual. So health education on Podoconiosis in society can reduce the prevalence of stigma and would also help in the acceptance of the affected persons and their family members in the society. There should be mutual understanding between the segregated group and the general communities.

To do so the counseling service for the segregated one and health education for the general community is essential. However, the finding of the current studies shows the activities are not effectively materialized. The finding shows that the major problem Podoconiosis patients' face was a physical challenge followed by absence of counseling service. The patients from Wolaitta in the current study reported that their inability to walk long distance, stand for a relatively long time and inability to carry out their day to day chores due to the chronic nature of the disease and the pain associated with it. Podoconiosis causes disability due to its acute manifestations as well as its chronic forms as easily observed from the research participants. This finding agrees with the finding of Sri Lanka which showed elephantiasis patients reported difficulty in walking, in doing housework due to the swollen limbs, and the severe types of the disease associated with difficulty in standing and using the toilet. And also they have difficulty in climbing stairs, walking uphill, drawing water from well, getting into the bus, holding railing in a bus, sitting and lifting heavy objects (Wijesinghe *et al.*, 2007). And societal negative reaction towards Podoconiosis patients was another challenge they face not to integrate within the community. According to the finding society isolates the patients from different social activities. They don't have decision making power in their community and home. All in all they face stigma and discrimination. This finding was consistent with the literature which shows that Podoconiosis patients face stigma and discrimination due to their disease. Goffman (1963) describes three general causes of stigma: physical deformities, moral transgression, and membership of a despised social group.

People with Podoconiosis are associated with the first and third because of physical manifestations of Podoconiosis and many people with Podoconiosis are members of groups that are already socially marginalized; for example they are poor and stigmatized. Furthermore, stigma is also more evident when the condition is unalterable, incurable, severe, degenerative, and leads to readily apparent physical disfigurement or to an undesirable and unaesthetic death (Gilmore and Somerville, 1994). And the current study showed that Podoconiosis patients face economic challenge due to their affected limbs which aligns with the finding of Tekola. According to research conducted by Tekola (2006), Podoconiosis patients were involved in economic and domestic activities, but worked less than from those free of the condition. According to Tekola (2006), even potentially productive people are forced to be partially or totally housebound due to Podoconiosis. Podoconiosis patients are less likely to be employed because of the unwillingness of employers to take them as employees due to the social values and beliefs that are attached to the disease and the physical condition of patients, which have an impact on their physical activities. According to literature people with disability are most disadvantaged poor citizens anywhere in the world and especially in developing countries where facilities are limited. Many reported that begging is the only left option because they are unable to do what they are supposed to do which aligns with the study which says most available job for disabled people is begging. This leads them to be poor, so as facilitating to be become marginalized group of the society. The finding also showed absence of counseling service in the area is the major challenge Podoconiosis patients face not to integrate with the community.

According to Kathrun (2005), people who live satisfying and fulfilling lives and are not confronted by any particular crisis do not seek counseling. However, even people who live satisfying and fulfilling lives will at certain times be troubled emotionally and may seek help. Many people, if not all, will at some time encounter physical and/or emotional crises. It is at times like these that people may seek counseling. The most common reasons why people come to see counselors relate to relationships, developmental life changes, being troubled by illness, having experiences of physical or emotional trauma. Research has indicated that counseling has a positive effect for physically and emotionally traumatized individuals. Counseling is useful to provide patients with emotional support in times of crisis and to help them live a satisfying life despite the challenge they have. Podoconiosis patients have no access to counseling services and no one provides such kinds of service, therefore it easy to predict the challenge they face due to lack of counseling service. And the current study also showed that bad smell of the leg is a major challenge why Podoconiosis patients isolate themselves from public activities. They feel discomfort in the presence of others due the stinky smell of their leg as they reported. This finding aligns with the finding of G/Hanna (2005) which reported that Podoconiosis patients face challenges within their community because of the bad smell of their legs.

### Recommendations

In light of the aforementioned conclusion the following recommendations are put forth:

Counseling service by professional counselors should be provided to podoconiosis patients in order to equip them with the skill to handle the challenge they face in their day to day activity.

- Podoconiosis prevention and control programe in Ethiopia is not integrated to the general health care service; therefore The Ministry of Health (MOH) should integrate into health care service and also should develop and integrate a psychosocial rehabilitation programe.
- They should be given especial kind of educational training so as to broaden their job opportunity.
- Civil societies, including professional groups, NGOs, private societies, the media, the academic and research organizations are expected to play key roles in addressing the psychosocial problems of podocoiosis patients.
- In order to decrease the negative reaction of the wider community towards podoconiosis Ministry of Health need planning health education to change the behavior and attitude of the disease.
- Holding different awareness creating program through both print and mass media about the disease.

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