Magnitude and determinants of self-referral of patients at Nekemte- General Hospital, East wollega, western Ethiopia, 2014

BY

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Abstract

Background:-The WHO Expert Committee on the Role of Hospitals at the First Referral Level identified the key problems within the referral system are over- loading of hospitals with inappropriate self- referrals, poorly-judged referrals, leading to by-passing of those levels and inadequate flow of information to and from the hospital.

Objective: - The purpose of this study is to assess magnitude and determinants of self-referral of patient at Nekemte General Hospital, East wollega, Ethiopia, 2014.

Method and materials: A hospital based cross sectional study was conducted from April 16-30, 2014. Four hundred twenty two patients attending Nekemte hospital were selected using systematic sampling technique. Data were collected using structured and pre-tested questionnaire. Six data collectors and one supervisor were trained and involved in the data collection process. Data were entered and analyzed with bivariate and multivariate logistic regression using SPSS version 20.0-computer software.

Result: Response rate was 99.8%. A total 346 (82%) of respondents at Nekemte general hospital were self-referred. Among respondents 218(51.7%) were female. Patients who knew closer health facility as the first referral were 76% less likely to self refer themselves to the Nekemte General Hospital as compared with those who did not know it. Those who obtained information on the referral system from health worker were 35% less likely to self refer themselves to Nekemte General Hospital.

Conclusion and Recommendation: obtaining laboratory test service, drug at closer health facility, knowing the closer health facility as first referral level and the obtaining of health education on referral system from health worker were found to be significantly associated with self-referral to Nekemte General Hospital. Ensuring primary level health care particularly health centers with adequate drug supply and laboratory services, health workers should take measures to improve awareness of patient on referral system.

Key word: self-referral, Nekemte, Ethiopia.

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Acronyms & Abbreviations

CHF	closer health facility
E/W ZHD	East Wollega Zonal Health Department
FLCF	First level care facility
FR	Facility Referral
GP	General Practioner
HC	Health Center
HEW	Health Extension workers
HMO	Health maintenance organizations
HSDP IV	Health Sector Development Program
HW	Health Worker
MOH	Federal Ministry Of Health
NGH	Nekemte General Hospital
ORHB	Oromiya Regional Health Bureau
PHCUs	Primary health care units
WHO	World health organization

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Chapter 1: Introduction

1.1Background:

Referral is a process by which a health worker transfers the responsibility of care temporarily or permanently to another health professional or social worker or to the community to obtain the consultation or special expertise directly needed (1). Referral system is a support system that assists in making health services more effective, efficient, and equitable to its users and it is very important in maximizing limited resources, avoiding duplication of services, promoting cooperation and complementation of primary, secondary and tertiary health facilities and in promoting continuity of treatment and ensuring sustainability of the service. Referral can be one way or both ways. The most common is the two ways (bidirectional) in which all involved organizations will refer clients to receive available comprehensive care, treatment and support (2).

Referral support is important to the proper functioning of first level health facilities in a health system based on primary health care. The proper functioning of the first level service, which is composed of health posts, health centers and primary hospital, is a guarantee for equity of accessibility to secondary and tertiary level health care and can prevent over use of these higher-level health care facilities (3).

The universal access to health care can be achieved through provision of quality health care service to people living in rural and remote areas(4). Unlike rural, urban areas are better served in terms of distance to health care facility, health worker density and quality of care, compared with remote areas (5). One of the primary ways to improve services in remote regions is through an effective and efficient referral system. Referrals have considerable implications for patient outcomes, the healthcare system and healthcare costs (6, 7).

Different countries have different referral structures according to their health policy to implement effective referral mechanism. Despite referral structure, there may be situations where people by-pass a primary level health care which decreases the efficiency of specialty care system, and leads to problems for the individual and the

healthcare system, such as: accrual of unnecessary costs to the system , payment difficulties for the patient, lack of comprehensive healthcare information for the patient, lack of planned referral and its benefits of continuity of care, lowered standards of specialist care due to overburdening, compromising the established referral system, reduction in feedback and follow up after treatment procedures (8,9).

Ethiopia is among the developing nations located in Sub- Saharan Africa. To improve access to health services, the government, which is the main provider and financer of health care, has established a three-tier health service delivery system, which requires an effective two-way referral connections (10). The country health policy which was issued in 1993 has also got strategy in the development of an effective referral system by: improving accessibility of care according to need, assuring continuity and improved quality of care at all levels, rationalizing costs for health care seekers and providers for optimal utilization of health care facilities at all levels and strengthening the communication within the healthcare system (11).

1.2 STATEMENT OF THE PROBLEM

Patient referral system is practiced in developed and developing countries with differing levels of quality and care according to their socioeconomic status, availability of resources and organization of services. According to the World Health Organization expert committee on the role of hospitals at the first referral level identified the key problems within the referral system includes over- loading of hospitals with self-referred patients, poorly judged referrals, lack of confidence in health care at the health post/ centers levels leading many patients to bypass them to the higher level for minor health problem (12).

Self-referrals may cause the primary level health care being under-utilized, and hospitals being over used, congested and overburdened, leading to an escalation of health care costs. It makes many patients spend long waiting hours to see highly trained medical workers in hospitals and misapplication of the highly trained health workers' time, which causes inadequate flow of information to and from the hospital. Due to large patient loads, human and physical resources are stretched to capacity, which results in hospitals compromising the care that they provide to patients, who genuinely and correctly deserve to be managed in a specialized care setting (13-15).

Provision of primary care at the hospital distorts its function. It is believed many of the apparent shortcomings of the hospitals are linked to congested outpatient departments and overworked laboratories performing hundreds of routine tests. Overqualified staff and expensive facilities are therefore used in ways their planners did not contemplate. It is good to ensure that hospitals concentrate on their roles as referral centers and not made to perform the functions of health centers (16).

In Ethiopia there is the recent accelerated expansion of primary health care facilities, the Ethiopian health system seems to have addressed one of the most significant barriers to entry to the health system, the availability of basic care within a reasonable distance (18). However, there are still significant gaps between the level of coverage within the facilities and the utilization of the available services. Therefore, it is high time that proper attention be given to quality in the delivery of health services. The reasons for the gap between the availability of health services and the level of utilization health services by

the population need to be explored and identified. Otherwise, the underutilization of services at most peripheral public facilities tend to continue, while at the same time patients incur unnecessary costs due to self-referral to distant and more expensive centers. This again will result in wastage and inefficiency of resources, in addition to negatively affecting the overall efforts and investments of decreasing morbidity and mortality for improving health status among the country's population (19). From my experience, observation, and review with experts at Nekemte General Hospital most patients came to the hospital without referral paper for their health problem but the magnitude and determinants self-referral of patients not yet identified.

These have motivated and increase the interest of the researcher to assess the magnitude and associated determinants. Therefore, this study aimed to assess the magnitude and determinants of self-referral of patient to the secondary referral level.

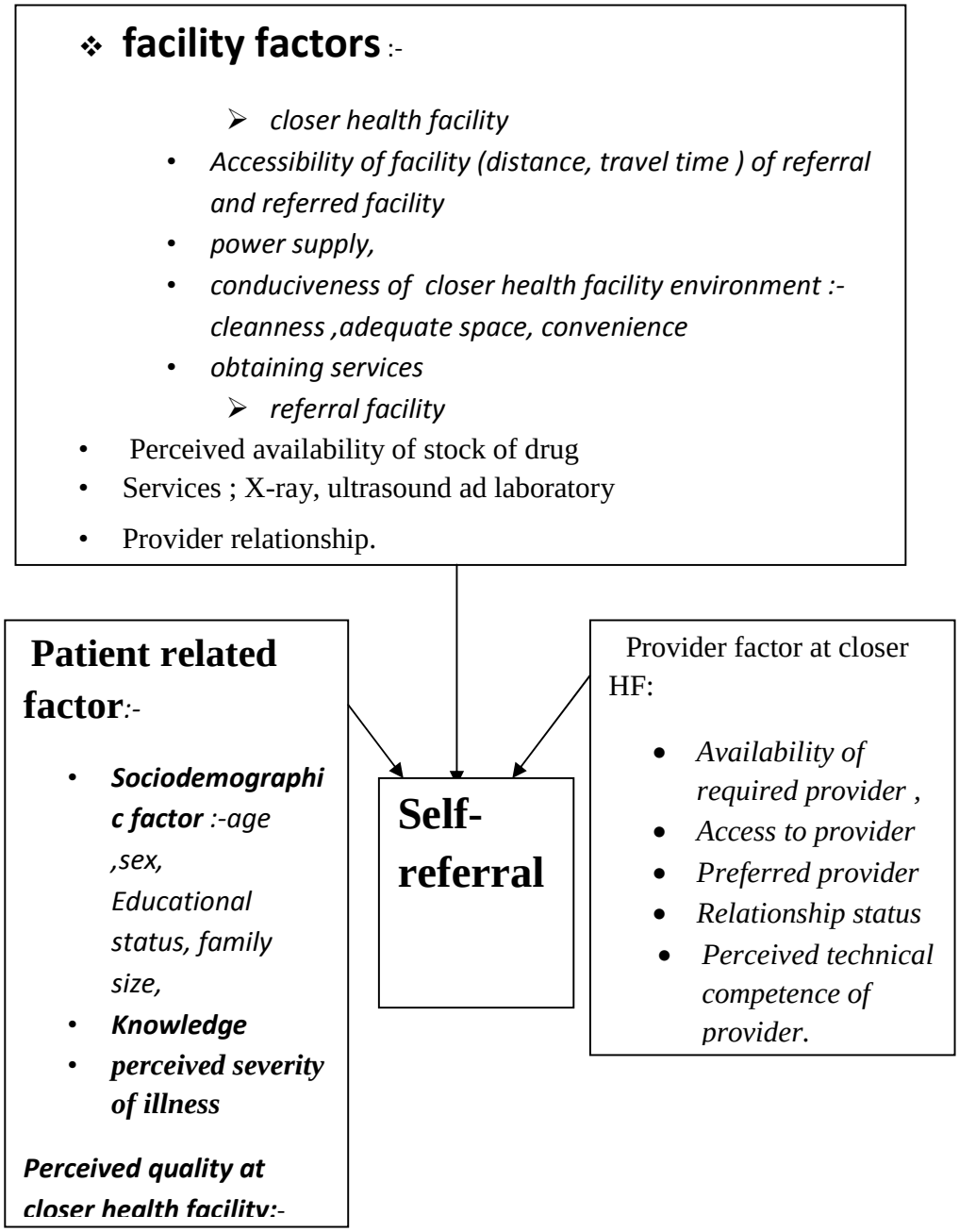

Figure 1: Conceptual framework for determinants of self-referral adopted by principal Investigator after revising related literatures, April 2014

1.3 Significance of the study

High numbers of self-referrals amongst population highlight the beneficiaries' own perception of risk, and the under-utilization of the lower level or over-utilization of higher-level hospitals may be seen to help ease patients' anxiety (20).

Despite the presence of referral system, many patients bypass lower level and go for a higher level of health care. This study will identify those determinant factors for self-referral of patients to higher level of care with minor health problems, which could have been managed at lower levels of health care facilities. This study will provide valuable information for health care managers' to realize the determinants for self-referral and knowing factors associated with patient self-referral will be useful to provide evidence in terms of improving the quality of care at primary level health care and the findings of this study will also serve as a baseline data for future studies.

Chapter 2: Literature Review

2.1 Patient expectation vs referral

A Study conducted in Scotland shows on the first contact with a healthcare practitioner, particularly if that contact is with a GP, 90% of patient needs can be met. If the initial problem cannot be managed, the decision will be made to refer the patient to a specialist or hospital outpatient department (21).

The referral system offers one strategy for making the best use of hospitals and tertiary healthcare services, but all patients should be seen first by a primary healthcare physician who decides whether a referral is necessary. In other words, access to hospital care should be through primary health care centers, except for emergency cases where patients may access the hospital directly via the hospital's emergency department. This avoids system inefficiencies such as disadvantaged groups suffering from a lack of specialist care due to specialist doctors being overwhelmed by inappropriate self-referrals (22).

2.2 Perceived quality of health care vs self referral

The fact that quality perceptions have a strong influence on one's inclination to avail health services is beyond dispute. Thus, expanding access or holding the line on costs is not enough if one's confidence in the quality of health care services is low. Perceptions of poor quality of health care may, in fact, dissuade patients from using the available services because health concerns are among the most salient of human concerns. If the system cannot be trusted to guarantee a threshold level of quality, it will remain underutilized, be bypassed, used only for minor ailments, or used as a measure of last resort (23).

Studies done in India shows that there are varying reasons why patients seek care directly from hospitals. 55.7% of caretakers sought care directly at the referral facility because they perceived that the referral facility provided better quality services. Atkinson and colleagues found differing results in urban Zambia, where people sought care at hospital facilities, not for perceived improved quality services, but because they thought they were less costly and better stocked with drugs (24). In Tanzania patients bypassing nearby health centers to seek health care at distant hospitals and private facilities show evidences of their understanding of various measures of quality at the facilities that they visit and bypass (25). In addition to high cost and poor access, dissatisfaction with the health

system (especially shortage of medicines in facilities) affects health-seeking behavior and continues to make accessing health services unpractical or impossible for much of the rural population in Kenya (26).

Similarly perceived quality accessibility and price were among the most important factors affecting utilization of health facilities in Ethiopia (27-29). On the other hand, there are also reports suggesting that usage of health facilities is sensitive not just to the distance to the nearest facility, rather to the quality of health care provided (30,31).

2.3 Provider related factors vs self referral

In a telephone survey conducted in the mid western plan, among patients who recently self-referred responded why they chose to bypass their primary care physicians. Most commonly, patients (37.5%) reported that they preferred to directly access a specialist to save time or to choose their own specialist. The second most common reason (27.8%) was that patients experienced relationship problems with their primary care physicians. Such problems most commonly occurred because physicians refused to make a requested referral. Some patients (22.9%) responded that an established relationship with a particular specialist was the reason for self-referral. Just 3.5% of patients self-referred because they did not have a primary care physician (32).

Leonard et al (2002) examined bypassing in 90 villages in Tanzania studies shows that patients seek higher quality providers with better staff and basic supplies and tend to understand the importance of these factors for their illness conditions (33).

Study done in Pakistan on evaluating of effectiveness of patient referral system shows the reasons why patients by passed the first level care facilities (FLCF), went to higher health care level, 20% claimed unavailability of physician at the FLCF (34).

2.4 Educational status and self-referral

Study conducted in Nigeria shows patients' educational status had no influence on whether they were referred or not. Therefore, both the educated and uneducated bypass the lower levels of health care to obtain health care at the Teaching Hospital. Some reasons for this include; the fact that people have little confidence in the care they would receive outside the hospital and lack of well-designed referral system with defined procedures, management support and appropriate forms (6, 35).

2.5 Facility factor vs self-referral

By examining characteristics of bypassed facilities, it is possible to provide information of relevance to policy-makers. An individual going to a facility that is further away is indicating that the further away facility is preferable to closer ones. Are these facilities, which, in spite of their proximity to ill individuals, are not open long enough hours, are too crowded, and are under-staffed, charge fees for care that are too high, or are missing vital equipment and medical supplies? Ministry of Health officials and other policy-makers in developing countries are intensely interested in the reasons that an ill person, especially a poor one or one severely ill and in need of care, would bypass a government health facility, not only to go further to health facility but often also to pay for the care rather than receive it free of charge at the closer facility (36).

Although the physical proximity to heath facilities was viewed as satisfactory, the utilization pattern raised several concerns. This phenomenon was common to all types of healthcare facilities. Hence, it was evident that providing healthcare facilities closer to households alone would not improve access to such facilities unless the issue of bypassing is adequately addressed. Resources spent on maintaining a widely distributed provider network is unlikely to be justified in the long run if some facilities are over utilized while many others are underutilized. The phenomenon of bypassing a closer facility to attend a more distance one could further increase the demand on certain facilities, thus leading to rationing of services. Apart from rationing of services, deterioration in quality of services could follow (37).

In most Sub-Saharan African countries, weak competition in the health sector creates a situation where the population is often faced with local primary health care monopolies. Despite this weak competition, some individuals choose to be treated in health centers further away from their homes, and thus incur greater time and transport costs in order to obtain services they perceive as being better adapted to their needs. Study conducted in Sri Lanka shows, in the rural district close to 2/3 of individuals seeking treatment-bypassed facilities. In particular, the more severely ill patients are more likely to bypass health facilities (38).

In African studies, the profile and sophistication of referral centers may result in patients bypassing lower levels of care and present themselves to higher levels irrespective of the triviality or seriousness of their medical complaint. Up to 82% of maternity hospital, users in African studies have been found to be self-referrals (13). Education seems to play a role but even those with higher education have a poor knowledge of referral channels in the health care system. Many patients do not necessarily know the difference between the different levels of care. Patients may also lack confidence in the quality of care available at primary health care level and may perceive hospitals as providing better care, with doctors deemed more capable than nurses or midwives at managing their medical problems efficiently and effectively. High numbers of self-referrals amongst the obstetric population highlight women's own perception of risk, and the inappropriate use or over-utilization of higher-level hospitals may be seen to help ease patients' anxiety (20).

2.6 Severity of illness and bypassing

The study conducted in Sri Lanka shows the relationship between severities of illness and bypassing facilities seems likely to be tied simply to the fact that more severely ill individuals are more willing to travel greater distances than mildly ill individuals do in order to get what they perceive as quality care. As a result, they are also more likely to bypass facilities. Obviously, the geographic structure of the health system helps to show that individuals will travel further if ill to get to the high-level facility. If the geographic layout were such that everyone lived nearer the highest-level facility, we would not be able to identify the fact that people who are severely ill travel further to get to this type of care. When people are very ill, they tend to go directly to the high-level facility. Having lower level facilities nearby is not likely to affect this behavior for many patients. On the other hand, the less severely ill seem to be more willing to save travel time by using perceived lower quality care. When service quality is equal, users will frequent the nearby health facility, but when quality of the services offered is appreciably lower, even care provided free of money cost and in close proximity will not be sufficient to attract many of the potential users. Significant numbers of the poor and the rich, the severely ill and the less severely ill simply will not patronize health providers who do not provide quality above some level of perceived necessary quality (34).

A study done on evaluating of effectiveness of patient referral system in Pakistan in 2001 tried to assess the reasons why patients by passed the first level care facilities (FLCF), went to higher health care level , 11% said that since they were too ill to be taken to the FLCF it has no use to go there and lose time. About 9% gave a variety of other responses. Even for minor illnesses, 14% of the respondents still preferred to directly visit a tertiary care hospital (36).

Chapter 3: Objectives of the study

3.1General objective

Assess the magnitude and determinants of self-referral of patients at Nekemte general hospital.

3.2 Specific objectives

1. To assess the magnitude of self-referral of patients.
2. To identify determinants facilitating self-referral of patients.

Chapter 4: Methods and materials

4.1 Study area and period

This study was conducted from April 16 - 30, 2014 at Nekemte general public hospital located in Nekemte town administration, East wollega zone, western Ethiopia. The zone is located 330 km west of the capital city Addis Ababa. It comprises 17 woredas, 1 town administration, and according to 2007-population census the total population size of the zone is 1,580,468 comprising of 49.2%male and 50.8% female.

The zone has one public general hospital, which is Nekemte general hospital, located in Nekemte town, one functional primary hospital and two under construction. There are 58 health centers, one tertiary hospital under construction and health service coverage of east wollega zone in 2012/13 was 91%.

Nekemte Hospital serves for about 1.6 million populations and provides health care services seven days per week, the average daily OPD patient flow was about 300 including new, revisit, emergencies and cold cases of both facility referred and self-referred patients by deploying staff of different disciplines at six case teams of OPD service.

4.2 Study Design

Cross sectional facility, based study design was employed.

4.3 Population

4.3.1 Source population:

All patients who were attending OPD at Nekemte public general Hospital during the study period.

4.3.2 Study population:-

Sampled patients who were attending OPD service at Nekemte public general Hospital.

4.3.3 Study unit: -

Selected patient who were attending service at Nekemte public general Hospital.

4.4 Inclusion and exclusion criteria

4.4.1 Inclusion criteria

Patient who attends care at OPD of Nekemte general hospital.

4.4.2 Exclusion criteria

- Patients with mental health problems.
- Emergency life threatening cases.
- Unable to hear and speak.
- Age less than 15 years

4.5 Operational definition

- **Self-referrals**: - are patients who visit secondary referral hospital without referral slip.
- **Referred patient: -** is patient with referral slip from lower health facility.
- **Health care provider**: refers to all physician, health officer and nurses who take history, physical examination and treatment at OPD of closer health facility.
- **Closer health facility:** is public health facility (health center or primary hospital) with in 10 km distance from place of residence.

4.6 Sample size determination and sampling technique

4.6.1 Sample size determination

The required sample size was determined by using single population proportion formula considering the following assumptions: since there were no published study on prevalence of self-referral at secondary referral level proportion of 50 % self-referral rate was taken, Margin of error = 5%, and Non-response rate = 10%

The formula for calculating the sample size was,

$$n = \frac{(Z\alpha/2)^2 p(1-p)}{d^2} = \frac{(1.96)^2 * .5 * (1-.5)}{(0.05)^2} = 384$$

With the above assumptions, the sample size was calculated and the overall sample size was found to be =384 +39 (10% non-response rate) = 423 (users).

4.6.2 Sampling technique: -

Systematic sampling technique was employed

Based on record review of monthly patient flow at Nekemte General Hospital, during the same month last year, was found to be 6850 excluding patients with emergency case. Taking in to account the average monthly patient flow and two weeks study period, the sampling interval was calculated, using the following formula:-

K=N/n where N=3425, n=423 K=3425/423 = 8.1

The sampling interval was found to be 8 and using lottery method random number ranging from 1-8 (first sample) was selected which was 3 and every 8^{th} (3rd, 11th, 19^{th} …..) patients were selected from registration at record office.

4.7 Measurement

4.7.1 Data collection instrument: -

Pre-tested structured questionnaires for face-to-face interview were used to collect data. The questionnaires contain variables related to socio-demographic, knowledge of patients, patients' experience on service, patients' perception on provider related factors at closer health facility and perceived severity of illness were prepared in English and translated to Afaan Oromo language.

4.7.2 Data collection procedure

Data on magnitude and determinants of patient for self-referral was collected using a structured questionnaire prepared for this purpose separately for each patient. One person was assigned at record office to trace sampled patients and they were traced by using serial number from registration book at record office ,based on the sampling interval (K=8) calculated . Data collectors who were assigned at each of six case team room, collected information from the person assigned at record office to trace list of participants, regarding to which case team room that the study participants were assigned. Structured questionnaire for face-to-face interview, which was prepared in English version, was translated to local language and were distributed to data collectors and the data collectors at each case team collected data separately from each study participants by using interview method.

4.7.2 Study Variables

Dependent variable

- ❖ Self-referral to secondary referral level.

Independent Variable

- ❖ Patient related factor:-
- ➢ Sociodemographic factor :-age ,sex, educational status, family income , family size , Place of residence (urban /rural)
- ➢ Knowledge
- ➢ perceived severity of illness
- ➢ Perceived quality at health facility:-confidence of pt on service of closer facility, recommend the service to others
- ❖ Closer health facility factors :-
- ➢ Accessibility:- distance ,travel time,
- ➢ Availability of provider, power supply,
- ➢ comfort :-cleanness ,adequate space, convenience
- ➢ obtaining services; laboratory ,drug supply
- ❖ referral facility factors
- Availability of stock of drug
- Services ; X-ray, ultrasound and laboratory
- Provider relationship
- ❖ Provider factor at closer health facility:
- Availability of required provider ,
- Access to provider,
- Preferred provider,
- Relationship status,
- Perceived technical competence of provider,
- Verbal referral.

4.8 Data processing & analysis

After data collection, each questionnaire was checked for completeness and code was given during data collection. Data were entered and analyzed using SPSS version 20-computer software. Descriptive statistics like frequency tables, graphs and descriptive summaries were used to describe the result. Bivariate logistic regression was performed to include all potential variables. Variables with p- value less than 0.25 with bivariate logistic regression were entered to multivariate logistic regression. p- value less than 0.05 with multivariate logistic regression was used as cut off point for presence of statistical significance.

While fitting the different groups of variables in different models, variables that show significant association with the outcome variable were reported at every step, model one to the final model. Finally, all groups of explanatory variables were fitted to a single model and variables with p-value <0.05 was reported as factors associated with self-referral factors with both p-values and adjusted odds ratios and 95% CI.

4.9 Data quality control

To achieve a good data quality:

Data collectors (diploma nurses) were selected based on ability to speak the local language and previous experience of data collection. Training was provided to data collectors and supervisor for one day about the objective and process of data collection. The questionnaire was translated to local language, which is Afaan Oromo. Vague points and other problems encountered about the questionnaire were given explanations and clarifications. Closer supervision was undertaken during data collection. The supervisor and the principal investigator crosschecked every questionnaire daily for their completeness. Problems faced were discussed over night with data collectors and the supervisors. Trained data collectors outside study area at Gimbi hospital did pre-testing on 10% of sample in order to prevent information contamination. Ambiguous questions and repetitive ideas were corrected. Additional response categories were also added based on the pretest findings.

4.10 Ethical consideration

The study obtained ethical clearance from ethical committee of Jimma University, college of public health and medical science. Permission paper obtained from Nekemte General Hospital. Similarly after clear discussion about the actual study or explaining of purpose of the study, verbal informed consent obtained from each study participants while the study subjects right to refuse was respected. Identification of study participants by name was avoided on the data collection instrument to assure the confidentiality of the information obtained.

4.11. Dissemination plan

Based on results and approval by Jimma University, recommendation will be given to- Nekemte general hospital, East wollega zonal health department, Oromiya Health Bureau and MOH.

5. Results

Among the total 423, 422 responded to the interview making the response rate 99.8% from which 346(82%) were self-referred patients. They visited Nekemte General Hospital without referral paper. The selected variables of Sociodemographic factors of the study participants were displayed in table 1. Among total respondents 218(51.7%) were female. The median age of study subjects was 32 years and age ranges from 17-84 years. Majority of respondents' age lie between 25-34 and 35-44 years of age, which accounts for 37% and 30% respectively. Three hundred four (80.6%) were married, 179 (42.4%) were farmers followed and109 (25.8%) of respondents were at level of 9-12 grade.

Table 2. Shows the patients' experience at the closer health facility of the study subjects. From total respondents, 309(73.9%) said, the type of provider they want were not available at the closer health facility. Three hundred seventy three (88.4%) of total respondents said they had no access to the type of provider they want at the closer health facility. Majority of respondents 370(87.7%) preferred GP provider to be available at closer health facility. Three hundred twenty three (76.5%) of respondents said that providers at closer health facility did not explain in the way they understand. In addition, 326 (77.3%) of respondents said providers at closer health facility did not provide full information about their health problem.

A total of 368 respondents visited closer health facility for their current health problem, 292(79.3%) were self-referred. Two hundred sixty one (70.9%) perceived that provider at the closer health facility had no experience with medical problem of patients. Three hundred twelve (84.8%) respondents out of those who had history of visit at closer health facility for their current health problem, perceived that providers at closer health facility did not explained them well about their health problems. Regarding perceived technical competence 307(83.4%) of respondents perceived that providers at closer health facility did not examine them thoroughly (Table 3).

Table 1: Sociodemographic characteristics, Nekemte General Hospital, April 2014

variables	Self referred		Total (n=422)
	Yes (n=346)	No (n= 76)	
sex			
male	177(51.16%)	27(35.53%)	204(48.3%)
female	169 (48.84%)	49(64.47%)	218(51.7%)
age			
17-24	51(14.74%)	8(10.53%)	59(14%)
25-34	125(36.13%)	31(40.79%)	156(37%)
35-44	106(30.64%)	21(27.63%)	127(30%)
>=45	64(18.5%)	16(21.05%)	80(19%)
Marital status			
Single	42(12.14%)	11(14.47%)	53(12.6%)
married	284(82.08%)	56(73.68%)	340(80.6)
divorced	14(4.05%)	5(6.58%)	19(4.5%)
widowed	6(1.73%)	4(5.26%)	10(2.4%)
Educational status			
Unable to read & write	76(21.97%)	6(7.89%)	82(19.4%)
Only read &write	65(18.77%)	19(25%)	84(19.9%)
Grade 1-8	61(17.63%)	14(18.42%)	75(17.8%)
Grade 9-12	84(24.285)	25(32.89%)	109(25.8)
>12	60(17.34)	12(15.79%)	72(17.1%)
Occupational status			
Govt employee	87(25.14%)	25(32.89%)	112(26.5%)
merchant	55(15.9%)	18(23.68%)	73(17.3%)
farmer	155(44.8%)	24(31.58%)	179(42.4%)
House wife	19(5.49%)	6(7.89%)	25(5.9%)
others	30(8.67%)	3(3.95%)	33(7.8%)

Others- student, daily laborer, waiter, barber

Table 2: Patients' experience at closer health facility for self-referral, Nekemte General Hospital, East Wollega, Western Ethiopia, April 2014.

	Self-referral		
variables	yes	no	Total
Visit in last 12 months			
Yes	335(96.8%)	70(92.1%)	**405(96%)**
No	11(3.2%)	6(7.9%)	17(4%)
Availability of provider pt want			
Yes	69(19.9%)	25(32.95)	96(22.7%)
No	266(76.9%)	43(56.6%)	**309(73.2%)**
Access to provider patient prefer			
Yes	23(6.6%)	9(11.8%)	32(7.6%)
No	312(90.2%)	61(80.3%)	**373(88.4%)**
Listened carefully to patient			
Yes	192(55.5%)	60(78.9%)	252(59.7%)
No	143(41.3%)	10(13.2%)	153(36.3%)
Courtesy and respect			
Yes	147(42.5%)	60(78.9%)	207(49.1%)
No	188(54.3%)	10(13.2%)	198(46.9%)
type of provider patient prefer			
GP Doctor	317(91.6%)	53(69.7%)	**370(87.7%)**
HO/Bsc nurse	2(0.6%)	0	2(0.5%)
specialist	16(4.6%)	17(22.4%	33(7.8%)
explained in ways you understands			
Yes	66(19.1%)	16(21.1%)	82(19.4%)
No	269(77.7%)	54(71.1%)	323(76.5%)
Provided full information			
Yes	64(18.5%)	15(19.7%)	79(18.7%)
No	271(78.3%)	55(72.4%)	326(77.3%)

Table 3: patients' perception on technical competence of providers at closer health facility, Nekemte General Hospital, western Ethiopia, April 2014.

variables	Self referred		Total
	Yes (n= 292)	No (n=76)	n=368
Provider Experience			
Yes	93(31.8%)	14(18.4)	107(29.1)
No	199(68.2%)	62(81.6)	261(70.9)
Provider explanation			
Yes	27(9.2%	29(38.2%)	56(15.2)
No	265(90.8%)	47(61.8%)	312(84.8)
Carefully checked every thing			
Yes	30(10.3%)	20(26.3%)	50 (13.6)
No	262(89.7%)	56(73.7%)	318(86.4)
examined you thoroughly			
Yes	36(12.3%)	25(33)	61(16.6)
No	256(87.7%)	51(67)	307(83.4)

Table.4 shows service factor at closer health facility: from total of 422 respondents, 322 (76.3%) respondents said, health center was closer to their residence and only 100(23.7%) of total respondents, primary hospital was closer to their residence. Three hundred sixty eight (87.2%) of total respondents had previous visit at closer health facility for their current health problem. Three hundred twelve (84.8%) of them had laboratory test order and 334(90.8%) responded that there was no long waiting queue at waiting area of closer health facility.

Table 4: Closer health facility service factor for self-referral, Nekemte General Hospital, East Wollega, Western Ethiopia, April 2014

	Self referred		
Variables	yes	no	total
Type of closer health facility	n=346**(%)**	n=76**(%)**	N=422**(%)**
Primary hospital	58(16.8)	42(55.3)	100(23.7)
Health center	288(83.2)	34(44.7)	322(76.3)
Visited closer HF for current illness	n=346	n=76	n=422
yes	292(84.4)	76(100)	368(87.2)
no	54(15.6)	0	54(12.8)
Laboratory test requested	n=292	n=76	(n=368)
Yes	241(82.5)	71(93.4)	312(84.8)
no	51(17.5)	5(6.6)	56(15.2)
Obtained lab service	n=241	n=71	n=312
Obtained all	51(21.1)	11(15.5)	62(19.9)
Non obtained	72(29.9)	32(45.1)	104(33.3)
Some obtained	118(49)	28(39.4)	146(46.8)
Obtained prescribed drug	n=292	n=76	(n=368)
Obtained all	76(26)	11(15.1)	87(23.6)
Non obtained	111(38)	19(26)	130(35.3)
some obtained	105(36)	46(58.9)	151(41.1)
long queue at waiting area	n=292	n=76	(n=368)
yes	11(4)	23(30.3)	34(9.2)
no	281(96)	53(69.7)	334(90.8)
Clean latrine	n=292	n=76	(n=368)
yes	247(84.6)	60(78.9)	307(83.4)
no	45(15.4)	16(21.1)	61(16.6)

Regarding patient perception on quality of service at closer health facility (see table 5), from total respondents 312(74%) of respondents had no confidence on getting the right provider at closer health facility. Three hundred nine (73.2%) responded that they had no confidence on getting drug at closer health facility. Regarding confidence on laboratory service 355(84%) of respondents responded that they had no confidence on the laboratory service of the closer health facility and 305(72.3%) of total respondents cited that they do not recommend care at closer health facility for someone else.

Table 5 : Patient perception on quality of care at closer health facility, Nekemte General Hospital, east Wollega, western Ethiopia, April 2014

	self-referral		
variables	**yes**	**no**	**total**
confidence of getting provider			
yes	58(16.8)	52(68.4)	110(26)
no	288(83.2)	24(31.6)	312(74)
confidence of getting drug			
yes	77(22.3)	36(47.4)	113(26.8)
no	269(77.7)	40(52.6)	309(73.2)
confidence on lab service			
yes	20(5.8)	47(61.8)	67(16)
no	326(94.2)	29(38.2)	355(84)
recommend care to someone else			
yes	71(20.%)	46(60.5)	117(27.7)
no	275(79.%)	30(39.5)	305(72.3)

Table 6 shows knowledge of patients on service at closer health facility and referral system; from total respondents 274(65%) responded that they did not know that, either health center or primary hospital was the first referral level. Considering knowledge of patients on type of available laboratory service at closer health facility, from total respondents 273(64.7%) responded that, they did not know. With knowledge on availability of type of provider at closer health facility 323(76.5%) responded that they did not know it and 350(82.9%) of respondents responded that they were not provided

any information on referral system by any health worker from which 294 of them accounts for 85% of self referred patients.

Table 6: Knowledge of patients on health services at closer health facility, Nekemte General Hospital, East Wollega, Western Ethiopia, and April 2014.

variable	Self-referral		total
	yes	no	
Closer health facility is first contact			
yes	87(25.1%)	61(80.3%)	148(35%)
no	259(74.9%)	15(19.7%)	274(65%)
know the type of lab service			
yes	91(26.3%)	58(76.3%)	149(35.3%)
no	255(73.7%)	18(23.7%)	273(64.7%)
know the type of provider available			
yes	63(18.2%)	36(47.4%)	99(23.5%)
no	283(81.8%)	40(52.6%)	323(76.5%)
Information on referral system			
yes	52(15%)	20(26.3%)	72 ((17.1%)
no	294(85%)	56(73.7%)	350(82.9%)

Table 7 shows the pulling factor at referral health facility for self-referred patient. One hundred eighty four (53.2%) of self-referred patients responded that they referred themselves to secondary hospital due to perceived availability of stock of drug at referral facility. Two hundred seventy four (80.3%), 265 (76.6%) and 248(71.7%) of self-referred patients responded that they referred themselves since they required x-ray, ultrasound and laboratory service at referral facility respectively.

Table 7: Referral hospital attribute for self-referral of patient, Nekemte General Hospital East Wollega, western Ethiopia, April 2014.

	Self -referred		total
variable	Yes n(%)	No n (%)	n (%)
DPADRF			
Yes	184(53.2)	0	184(43.6)
No*	162(46.8)	76(100)	238(56.4)
DRXSRF			
yes	278(80.3)	0	278(65.9)
No*	68(19.7)	76(100)	144(34.1)
DRUSRF			
yes	265(76.6)	0	265(62.8)
No*	81(23.4)	76(100)	157(37.2)
DRLSRF			
yes	248(71.7)	0	248(58.8)
No*	98(28.3)	76(100)	174(41.2)

DPADRF- due to perceived availability of drug at referral facility?

DRXSRF – due to requiring X-ray service at referral facility?

DRUSRF- due to requiring ultrasound service at referral facility?

DRLSRF- due to requiring laboratory service at referral facility?

Table 8 shows overall pushing factor at closer health facility for self-referral, 129(37.3%) responded that they referred themselves to Nekemte General Hospital due to relationship problem with the provider at closer health facility. Two hundred ninety eight (86.1%) and 248(71.7 %) of self referred respondents reasoned that unavailability of GP provider and verbal referral by provider at closer health facility respectively were the reasons for self referring themselves to Nekemte General Hospital.

Table 8: Overall pushing factors at closer health facility for self-referral, Nekemte General Hospital, East wollega, Western Ethiopia, April 2014.

	Self -referred		total
variable	Yes n (%)	No n(%)	n(%)
WYPFIFP			
Yes	64(18.5%)	15(19.7)	79(18.7)
No	271(78.3)	55(72.4)	326(77.3)
DYHRPP			
yes	129(37.3)	0	129(30.6)
No*	217(62.7)	76(100)	293(69.4)
UGPA			
yes	298(86.1)	0	298(70.6)
No*	48(13.9)	76(100)	124(29.4)
VRP			
yes	248(71.7)	0	248(58.8)
No*	98(28.3)	76(100)	174(41.2)

WYPFIFP - were you provided full information on your illness from provider

DYHRPP - did you had relationship problem with provider ?

UGPA - unavailability of GP provider

VRP - verbal referral by provider

Multivariate logistic regression analysis result

Table 9. Shows from Sociodemographic factors sex and educational status were significantly associated with self-referral at AOR and 95% CI [.494 (.280, .870)] and [2.68, (1.06, 6.74)] respectively. These imply that, females were 50.6% less likely to self refer themselves to Nekemte General Hospital as compared with males. Patients with educational status of grade 9-12 were about 2.68 times more likely to self refer themselves as compared with patients with twelve complete and above.

Table-9: Sociodemographic predictors for self-referral of patient, Nekemte General Hospital, East Wollega, Western Ethiopia, April 2014

	Self-refer	Facility R	total	OR and 95% CI	
variable	n (%)	n (%)	n(%)	**Crude**	**Adjusted**
sex					
male *	177(51.16)	27(35.53)	204(48.3)	1	1
female	169 (48.84)	49(64.47)	218(51.7)	**.539(.327,.915)**	**.494(.280,.870)**
ES					
URAW	76(21.97)	6(7.89)	82(19.4)	.27(.092,1.438)	.59(.15,2.33)
ORAW	65(18.77)	19(25)	84(19.9)	3.19(.957,7.26)	2.58(.78,8.56)
1-8	61(17.63)	14(18.42)	75(17.8)	2.19 (.93,6.48)	1.84(.57,5.91)
9-12	84(24.285)	25(32.8)	109(25.8)	**1.38(1.36,5.59)**	**2.68(1.06,6.74)**
>=12 *	60(17.34)	12(15.7)	72(17.1)	**1**	**1**
MS					
Single	42(12.14)	11(14.47)	53(12.6)	2.71(.65, 9.61)	2.1(.38, 5.72)
married	284(82.08)	56(73.68)	340(80.6)	7.31(.16, 23.79)	4.23(.58, 9.51)
divorced	14(4.05)	5(6.58)	19(4.5)	1.08(.47, 7.24)	1.62(.67,3.07)
widowed*	6(1.73)	4(5.26)	10(2.4)	1	1
OS					
GE*	87(25.14)	25(32.89)	112(26.5)	1	1
Merchant	55(15.9)	18(23.68)	73(17.3)	.64(.37,2 .97)	.76(.29,1.98)
farmer	155(44.8)	24(31.58)	179(42.4)	**3.41(1.28, 8.53)**	2.85(.74 ,6.74)
HW	19(5.49)	6(7.89)	25(5.9)	.38(.19, 1.63)	.21(.03, 1.53)
others	30(8.67)	3(3.95)	33(7.8)	.47(.26, 1.68)	.43(.26, 1.39)

ES- Educational status, URAW- unable to read and write, ORAW- only read and write MS-marital status, OS- occupational status, GE-governmental employee, HW-house wife

Regarding patients' knowledge factor for self referral (see table 10) , knowing the closer health facility as first referral level and the obtaining of information on referral system from health worker were significantly associated with self referral to secondary hospital

at AOR (0.24 and 0.65) and 95% CI [(0.164,0.317) and (0.467,0.791)] respectively. The study showed that patients who knew closer health facility as the first referral level were 76% less likely to self refer themselves to Nekemte General Hospital as compared with those who did not know it. Patients who obtained information on referral system from any health worker were 35% less likely to self refer themselves to Nekemte General Hospital than who did not obtained the information from any health worker .

Table 10: Patients' knowledge and perceived severity of illness predictor for self-referral, Nekemte General Hospital, Western Ethiopia, April 2014.

	Self-referral		total	**OR and 95% CI**	
variable	Yes n (%)	No n(%)	n(%)	Crude	Adjusted
DYKCFRL					
yes	87(25.1)	61(80.3)	148(35)	.46(.29,1.91)	**.24(.16,.32)**
no*	259(74.9)	15(19.7)	274(65)	1	1
DHWPIRS					
yes	52(15)	20(26.3)	72 (17.1)	**.37(.27,.54)**	**.65(.47,.79)**
no*	294(85)	56(73.7)	350(82.9)	1	1
PSI					
sever	283(81.8)	46(60.5)	329(78)	5.21(.95,4.28)	**2.17(1.06,5.83)**
moderate	45(13)	22(28.9)	67(15.9)	**3.25(1.29,6.28)**	1.36(.04,7.24)
mild*	18(5.2)	8(10.5)	26(6.1)	1	1

DHWPIRS-did any health worker provided you information on referral system?
DYKCHFFRL-did you know CHF is first referral level?
PSI- perceived severity of illness

As shown in table 11 below, obtaining laboratory test service at closer health facility was found to be significantly associated with self-referral status at AOR and 95% CI

1.64(1.37,3.49). With the reference group who obtained all of laboratory test service , those who obtained none of laboratory test at closer health facility were 1.64 times more likely to self refer themselves. Also obtaining prescribed drugs at closer health facility was found to significantly associated with self-referral. Patients who obtained some and none of the prescribed drugs self referred themselves 1.35 and 2.38 times more likely respectively as compared with respondents obtained all of the prescribed drugs(AOR and 95% CI = 1.35(1.08,3.44) and 2.38(2.19,3.77) respectively..

Table 11: Service at closer health facility predictor for self-referral, Nekemte General Hospital, East Wollega, Western Ethiopia April 2014

	Self-referred		total	OR and 95% CI	
variable	Yes n (%)	No n (%)	n (%)	Crude	Adjusted
YOLRC (n=368)					
yes*	241(82.5)	71(93.4)	312(84.8)	1	1
No	51(17.5)	5(6.6)	56(15.2)	.214(.19,7.27)	1.97(.297,5.77)
YLTRC (n=312)					
Obtained all*	51(21.1)	11(15.5)	62(19.9)	1	1
None obtained	72(29.9)	32(45.1)	104(33.3)	1.94(1.67,4.03)	**1.64(1.37,3.49)**
Some obtained	118(49)	28(39.4)	146(46.8)	1.29(.05,3.85)	1.82(.29,2.73)
YOPDC (n=368)					
Obtained all*	76(26)	11(15.1)	87(23.6)	1	1
None obtained	111(38)	19(26)	130(35.3)	3.86(1.93,6.14)	**2.38(2.19,3.77)**
some obtained	105(36)	46(58.9)	151(41.1)	2.18(1.25,5.19)	**1.35(1.08,3.44)**

YOLRC- did you obtain laboratory test request at CHF during your visit?

YLTRC – did you obtain laboratory test service requested for you at CHF?

YOPDC- Did you obtain prescribed drug at CHF?

Table 12: Final model predictors for self-referral, Nekemte General Hospital, Western Ethiopia, April 2014

	Self-referral			OR and 95% CI	
Variables	yes n(%)	no n(%)	total(%)	Crude	Adjusted
sex					
male*	177(51.16)	27(35.53)	204(48.3)	1	1
female	169 (48.84)	49(64.47)	218(51.7)	**.539(.327,.915)**	**.494(.280,.870)**
ES					
Grade 9-12	84(24.285)	25(32.8)	109(25.8)	**1.38(1.36,5.59)**	**2.68(1.06,6.74)**
>=12*	60(17.34)	12(15.7)	72(17.1)	1	1
DYKCFRL					
yes	87(25.1)	61(80.3)	148(35)	.46(.29,1.91)	**.24(.16,.32)**
no*	259(74.9)	15(19.7)	274(65)	1	1
DHWPIRS					
yes	52(15)	20(26.3)	72 (17.1)	**.37(.27,.54)**	**.65(.47,.79)**
no*	294(85)	56(73.7)	350(82.9)	1	1
PSI					
sever	283(81.8)	46(60.5)	329(78)	5.21(.95,4.28)	**2.17(1.06,5.83)**
mild*	18(5.2)	8(10.5)	26(6.1)	1	1
YLTRC (312)					
Obtained all*	51(21.1)	11(15.5)	62(19.9)	1	1
None	72(29.9)	32(45.1)	104(33.3)	1.94(1.67,4.03)	**1.64(1.37,3.49)**
Some	118(49)	28(39.4)	146(46.8)	1.29(.05,3.85)	1.82(.29,2.73)
YOPDC (368)					
Obtained all*	76(26)	11(15.1)	87(23.6)	1	1
None	111(38)	19(26)	130(35.3)	3.86(1.93,6.14)	**2.38(2.19,3.77)**
some	105(36)	46(58.9)	151(41.1)	2.18(1.25,5.19)	**1.35(1.08,3.44)**

6. Discussion

The magnitude of self-referral at Nekemte General Hospital was 82% of total respondents. But according to health care delivery structure primary level health care facilities are supposed to be the first contact for patients for their health problem from where they may be referred to either secondary or tertiary hospitals. However the finding of magnitude of self referral was lower than previous findings in Nigeria showed, the self-referral rate was 93% and only 7 % of all the new patients that attended the University of Ilorin Teaching Hospital , went through the referral system(1). This difference could be attributed to the difference in the study population and design.

Among Sociodemographic characteristics, only Sex and educational status of the respondents were found associated with self-referral. It showed females were less likely to self refer themselves to NGH as compared with males and patients with educational status of grade 9-12 were more likely to self refer themselves to NGH when compared to educational status of twelve complete and above. However, study in Nigeria showed that patients' educational status had no influence on whether they were referred or not. Therefore, both the educated and uneducated bypass the lower levels of health care to obtain health care at the Teaching Hospital (l3).

This study showed obtaining laboratory service and prescribed drugs at the CHF were important factors to utilize them. Those who obtained none of laboratory test service referred themselves more likely than those who obtained all of the laboratory test service during their visit for their current health problem at closer health facility. Similarly study done in Tanzania shows lack of diagnostic facilities at PHC facilities was the main reason given for bypassing them (40).

At the same time 38% and 36% of self-referred patients, obtained none and some of the prescribed drugs at closer health facility respectively and they referred themselves more likely than those who obtained all of prescribed drug at closer health facility. Consistently study in Tanzanian shows lack of drugs was among common reasons given for bypassing lower facilities (40). Additionally it is supported by study conducted in Kenya, which showed that dissatisfaction with the health system (especially shortage of medicines in facilities) affects health-seeking behavior and continues to make accessing health services unpractical or impossible for much of the rural population (15).

The health centers are supposed to be the point of first contact of patients. Patients are then referred from here to other levels of health care. However, 65% of total respondents did not know that health center or primary hospital is the first contact of patients. It is obvious that information on referral system is important but majority of respondents did not get any information on the referral system of health care delivery system from any health care provider.

Illness perception of patient is important in health seeking behavior. This study showed that patients who perceived that their illness was sever, referred themselves more likely than those who perceived mild. This is supported by study conducted in Sri Lanka, which showed the relationship between severities of illness, and bypassing facilities seems likely to be tied simply to the fact that more severely ill individuals are more willing to travel greater distances than mildly ill individuals do in order to get what they perceive as quality care. As a result, they are also more likely to bypass facilities (36).

The limitation of this study includes Recall bias, social desirability bias, absence of complementation with qualitative data.

7. Conclusion

The magnitude of self-referral to Nekemte General Hospital was found high as comparing with the standard health care delivery structure of referral system, that primary level health care facilities are supposed to be the first contact of patients for their health problem, from where they may be referred by provider to either secondary referral level ie General Hospital or tertiary hospitals.

Based on this study the main reasons why patients self referred themselves to secondary hospital:-

- Patient related predictors like perceived severity of illness, educational status and sex were identified for self-referral.
- Service at closer health facility factors; obtaining laboratory test service and prescribed drugs at closer health facility were associated with self-referral. Lack of drug supply and inadequate laboratory service evidenced by most of patients obtained some or none of prescribed drugs and none of laboratory test service for them were associated with self-referral.
- Patients' knowledge related predictors were identified for self referral that, majority of them were not provided any information on referral system by health workers and most of patients do not know closer health facility is the first contact of patients for their health problem.

8. Recommendation

Based on the study findings and the above conclusions the following recommendations were forwarded:

- MOH and ORHB should ensure primary level health care particularly health centers with adequate drug supply and laboratory services are essential in building confidence of care at primary level health care.
- Health workers should take measures to aware patients on referral system.
- East wollega zonal health department should conduct research on the impact of self-referral on patients.
- Nekemte General Hospital managers should conduct research on impact of self-referral on the hospital service.

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Questionnaire Afaan Oromo version

Koodi_____

Sayinsii fayyaa universiitii jimmaa

Ani digirii lammaffaa **universitii Jimmaa** tti barachaa kanin jiru qaama barumsichaa kan ta'e qorannoo waa'ee sababoota addaa addaa irraa kan ka'e dhukkubsattoonni waraqaa 'referral' mana yalaa / buufata fayyaa mana isaanitti dhioo jiru irraa hin fudhatiin ykn bira darbuu dhaan gara mana yaalaa hospitaala naqamtee dhufudhaan kan wallaanaman jiraachuun isaanii beekamaa dha. Kanaafis sababoota jiran kana qorachuun barbaachisaa waan ta'eef gaffileewwan armaan gadi jiran sirriitti ubachuudhaan deebii yoo fedha keessan ta,e akka laattan kabajaan isin gaafachaa iccitii kessan eguuf jecha eenyummaa keessan kan ibsu maqaan keessan kan hin barreffamne ta'uu isaa isiniif ibsa yoom iyyuu qorannoo keessaa yeroo barbaaddanitti dhiisuuf mirgi kessan eegamaa akka ta'e isiniif ibsina. Deebii isin nuuf laattan qorannoo keenyaaf baayyee barbaachisaa.

Hirmmaannaa keessaniif ulfaadhaa!

Hirmaachuun fedhii kooti Eeyyee ☐ . Lakki ☐

Maqaa isa ragaa funaanuu._____

Mallattoo _____

Guyyaa._____

Kutaa 1 ffaa :- haala hawasummaa fi

Lakk.	gaaffilee	deebiilee	code
101	saala	1.dhiira 2.dhalaa	
102	Umurii (waggaan)		
103	Haala fuudhaa fi heerumaa	1.kan hifuune/hin eerumne 2.kan heerumte/ kan fuudhe 3.kan walhiikan 4.kan irraa du'e/ dute	
104	Sadarkaa barnootaa	1.dubbisuu fi barressuu kan hin dandeenye 2.dubbisuu fi barressuu kan dandeessu/danda'u 3.kutaa 1-8 4.kutaa 9-12 5.kutaa 12 fi isaa oli	
105.	Sadarkaa hojii	1. hojjetaa/ttuu mootummaa 2.daldaalaa/tuu 3.qonnaan bulaa/bultuu 4.haadh manaa 5. kan biraa ibsi ----------	

106 galii maatii ji'aan qarshii _____ ta'a

107 baa'ina maatii _____

108.gosa dhukkubsataa. Kan waraqaa riferii **malee** dhufe eyyee ☐ lakki ☐

10 9.cimina dhukkuba kee kanaa akkamitti ilaalta:- salphaa☐ giddu galeessa☐ . ☐ Cimaa

Kutaa 2ffaa: **sababa dhaabbata fayyaa fi itti quufina dhukkubsataa**

lakk	Ibsa	deebilee
200	Gosa dhaabbata fayyaa bakka jireenya keetti dhi'oo jiru isa kami?	1.mana yaalaa 2. buufata fayyaa
201	Bakka taa'umsi dhaabbata fayya armaan olitti caqasame siif mijataa dhaa?(bakka ijaarsaa)	1.eeyyee 2.lakki
202	Dhaabbata fayyaa armaan olitti caqasame bira ga'uuf mana kee irra **sa'a** meeqa fudhta?	
203	Fageenyi dhaabbata fayyaa armaan olitti caqasame mana jireenyaa kee irra ammam fagaata? (**kilomeetraan**)	_____ km
204	Rakkoo fayyaa amma qabdu kanaaf dhaabbata fayyaa armaan olitti caqsametti wallaanamteettaa? (Wallaanamnaan gaaffii 205-208, 300-308 debisi)	1.eeyyee 2. lakki
205	Marsaa meeqa ? (ji,a 12 kessatti)	1.takkaa 2.si,a lama 3.si,a sadii 4 si,a afuri fi oli
206.	Qorannoo laboratorii siif ajajamee turee? (dhiiga , sagaraa ,fincaan , gogaa, akee..)	1.eeyyee 2. lakki
207.	siif ajajameera tanaan ,tajaajila laboratoorii siif ajajame keessaa ammam argattee?	1.hunduma isaa argadheera 2.hundumaa hinarganne 3.muraasa argadheera Kan dhibe kami----------

208.	Qoricha siif ajajame ammam argatte?	1.hunduma isaa argadheera 2.hundumaa hinarganne 3.muraasa argadheera Kan dhibe kami----------

Haala dhaabbata fayyaa sadarkaa tokkoffaa (primaty level health care)

300. Dawa qabaachuu dhaabbata fayyaa sitti dhiyoo jiru irratti itti quufina qabdaa?

Eyyee ☐ lakki ☐

301. Toorri umnaa oli kuufamee hinjiru Eyyee ☐ lakki ☐

302. Bakki taa'anii eeggatan mijuu fi qulqullina Eyyee ☐ lakki ☐

303.Teessoon ga'aa ta'e jira(kan cabaa hintaane) Eyyee ☐ lakki ☐

304. Kutaan qorannoo qulqullina qaba Eyyee ☐ lakki ☐

305. Kutaan qorannoo dhaabba tichaa ulfina koo naaf eega Eyyee ☐ lakki ☐

307. Dallaan isaa keessi qulqullina qaba Eyyee ☐ lakki ☐

308. Manni fincaanii isaa qulqulluu dha Eyyee ☐ lakki ☐

Haala ogeessa fayyaa sadarkaa tokkoffaa(primary level health care)

400.Dhaabbata fayyaa sitti dhiyoo jiru wallaansaaf dhaqxeettaa? Eyyee ☐ lakkii ☐

(Deebiin kee eyyee dha tanaan g401-408 deebisi,)

401.Ogessa fayyaa ati bardaaddu dhaabbata fayyaa jira turee? Eyyee ☐ lakkii ☐

402 Ogeessa dhibee fayyaa keef barbaadde dhaabbata fayyaatti argatteettaa?

Eyyee ☐ lakkii ☐

403 Ogeassa fayyaa ati barbaadu isa kami?

Hakiima(doktora) ☐ qondaala fayyaa ☐ Nersiii ☐ Speeshalistii ☐

404. Yeroo ati gara dhaabbata fayyaa wallaansaaf dhaqxee turte sanatti, ogeessi fayyaa waa'ee kee obbolummaa, aantummaa fi si kabajuun dhimmamee sigargaree turee?

Eyyee ☐ lakkii ☐

405.Ogessi fayyaa buufata fayyaa/ mana yaalaa ati kanaan dura bira dhaqxee sirritti sidhaggeeffataa?(utuu hin ariifatiin, yeroo ati haasoftu bakka biraa utuu hin ilaaliin,yeroo siif kennuudhaan ,qooqa ati dandeessuun si keessumsiisaa? Eyyee☐ lakkii ☐

406.Haala ati hubachuu dandeessuun hojjettoonni dhaabbata fayyaa dhibee kee siif ibsuu?(kallattii jiru siif ibsuudhaan,kaka'umsaan waan ati barbbaaddu sigargaaruudhaan)

Eyyee ☐ lakkii ☐

407.Ogeessi fayyaa dhaabbata fayyaa ati dhaqxe ulfina kee siriitti siif eegaa? (namni biraan akka kutaa qorannoo hinseenne gochuudhaan, balbala fi foddaa kutaa qorannooo cufuu, aguuggii Eyyee ☐ lakkii ☐

408. Ogeessi fayyaa siyaalaa ture, odeeffannoo ga'aa ta'e siif laateeraa?(gosa dhukkuba kee sitti himuu, madda ka'umsa dhukkuba kee , akkaataa of irraa ittisani himuu fi maree dhukkuba kee irratti si hirmaachisuu ,utuu yaada kee hin tuffatiin)

Eyyee ☐ lakkii kuta☐

5. **quality perception on previous visits** at the closer health facility

500. Buufata fayyaa/ mana yaalaa kanaan dura dhaqxe ,tajaajilli isaa qullqullina kan qabudha jettee yaaddaa? Eyyee ☐ lakkii ☐

501 Dhukkubsattoonni biraa akka isaan buufata fayyaa/ mana yalaa mana keetti dhi'oo jiru sanatti akka isaan dhaqanii yalaman ni gootaa? Eyyee ☐ lakkii ☐

502.Buufata fayyaa/ mana yaalaa mana jireenyaa keetti dhi'oo ta'e yoo dhaqxe ogeessa siriitti sigargaaru danda'u argachuuf amantaa irraa qabdaa?

Eyyee ☐ lakkii ☐

503.Buufata fayyaa/mana yaalaa sana irraaa qoricha sibarbaachisan nan argadha jettee amantaa qabdaa? Eyyee ☐ lakkii ☐

504.Buufata fayyaa/ mana yaalaa sana yoodhaqxe , dhukkubni kee sirriitti adda naaf niba'a etee amantaa qabdaa? Eyyee ☐ lakkii ☐

505 Tajaajilli laboratorii buufata fayyaa/ mana yaalaa sirriitti ni hojjeta jettee amantaa qabdaa? Eyyee ☐ lakkii ☐

506. Dhukkubsataan buufata fayyaa/ mana yaalaa sana yoo dhqee wallaaname nifayya jettee amantaa? Eyyee ☐ lakkii ☐

507. Tajaajilla buufati fayyaa laatu irratti amantaa qabdaaa? Eyyee ☐ lakkii ☐

508. Yoo deebiin g 507 lakkii dha ta'e sababni isaa maali?(deebiin tokkoo oli ta'uu danda'a)

1. Namoonni bayyeen bufata fayyaa santti waan hin fayyineef ☐
2. Ogeessi ogummaa ga'aa ta'e kan qabu hin jiru ☐
3. Dawaa ga'aa ta'e hin jiru ☐
4. Tajaajilli laboratoorii ga'aa waan hin taaneef ☐
5. Meeshaa wallaansaa barbaachisaa hin jiru ☐
6. Sababa dabalataa

_____

Knowledge factor of the client

600. Buufanni fayyaa bakka jalqaba irratti wallaanaman akka ta'e beektaa?

Eyyee ☐ lakkii ☐

601.buufanni fayyaa /manni yalaa tajajila laboratorii inni kennu beektaa?

Eyyee ☐ lakkii ☐

602.Yeroo barbachisaa ta'etti buufanni fayyaa/ manni yaalaa dhukkuba umna isaa olii sadarkaa olaanaati akka ergu hubannoo qabdaa? Eyyee ☐ lakkii ☐

603.Gossa ogessa fayyaa buufata fayyaa/mana yaalaaa bakka jireenyaa keetti dhiyoo jiru hubannoo qabdaa? Eyyee ☐ lakkii ☐

604.buufati fayyaa / manni yaalaa bakka jireenyaa keetti dhiyoo jiru tajaajila gasa kam sirriitti laata?

1.da'umsaa ☐ 2.wllaansa dhibee kessaa ☐ 3 baqaqsanii hodhuu xixiqqaa ☐

4 ciibsanii yaluu ☐ 5. Tajaajila ilkaanii ☐ 6.talaallii ☐

6. kan biraa jirannaan ibssi_____

605. Ogessi fayyaa waa'ee referralii hubannoo siif laatanii beekuu(extenshiniin fayyaa, ogessa mana yalaa ? Eyyee ☐ lakkii ☐

Part. 7 . Perceived Technical Competencies/professional care

700. ogeessi sirriitti qorannoo anaaf godheera jettee yaaddaa? Eyyee ☐ lakkii ☐

701. ogessi sirritti qorannoo qaamaa anaaf ni rawwata jettee amantaa?

Eyyee ☐ lakkii ☐

702.dhibee fayyaakoo adda anaf baasuuf ogeessi fayyaa qorannoo qaamaa barbaachisaa ta'eanaaf godha jettee amantaa? Eyyee ☐ lakkii ☐

703.ammam akka ana dhukkubu ogeessi fayyaa anaf hubata jettee yaaddaa?

Eyyee ☐ lakkii ☐

704.dhibee fayyaa ani qabu sirritti naaf ibsa jettee yaaddaa? Eyyee☐ lakkii ☐

705.ogeessi ana ilaale wa'ee dhibee fayyaa kootii irratti muuxannoo qaba jettee yaaddaa?

Eyyee ☐ lakkii ☐

Part 8: - **Questionnaire on overall determinants of self referral. Only for self referred patient**

A . secondary level hospital attribute

800. Beellama ogeessa fayyaa hospitaala naqamteen dhuftee? Eyyee ☐ lakkii ☐

801.Qoricha ga'a hospitalli Naqamtee qaba jettee dhuftee? Eyyee ☐ lakkii☐

802. Kallattiidhaan tajaajila hakiima ol'aanaa(speshalistii) barbaaddee dhuftee?

Eyyee ☐ lakkii ☐

803. Walitti dhufeenya oggessa fayyaa hospitaala Naqamtee waan qabduuff dhuftee?

Eyyee ☐ lakkii ☐

804. Ciistee wallaansa barbaacha dhuftee? Eyyee ☐ lakkii ☐

805. Tajaajila addaa barbaacha dhuftee Eyyee ☐ lakkii ☐

806.Deebiin g805 eyyee yoo ta'e , hospitaala naqamtee iraa tajaajila akkamii barbaadde?

rajii ☐ altirasaa'undii ☐ labooratoorii ☐

B .primary level attribute

807.Ogeessi fayyaa ani barbaadu waan hin jirreef. Eyyee☐ lakkii☐

808.Deebiin g 807 eyyee yoo ta'e , ogeessa isa kami barbaadda turte Eyyee☐ lakkii☐

1. Hakiima(Dr) 2.qondaala fayyaa 3.nersii 4 kan biraa ☐ ibsi_____

809.Waliigaltee ogeesa fayyaa wajjin waan hin qabneef. Eyyee☐ lakkii ☐

810.Ogeessi fayyaa afaaniin waan na ajajeef Eyyee ☐ lakkii ☐

811.Tajaajila ani barbaadu waan hin jirref Eyyee ☐ lakkii ☐

812.Deebiin g 811 eyyee dha yoo ta'e tajajila gosa kamiti hijiru?

1.laboratoorii ☐ 2.qorannoo seenaa fi qaamaa ☐ 3.qorichi dhibuu ☐

4 kan biraa tarreessi_____

813. Buufanni fayyaa/ manni yaalaa human ibsaa waan hin qabneef

Eyyee ☐ lakkii ☐

814.Dhiibbaa namoo taa (maatii, fira, hiriyyaa, olla) Eyyee ☐ lakkii ☐

Questionnaire English version

JIMMA UNIVERSITY COLLEGE OF PUBLIC HEALTH AND MEDICAL SCIENCES

Informed Consent number_____

Dear Sir/madam;

I am Master's Degree students from Jimma University. As part of my academic requirements, I am expected to conduct study on determinant factor for self-referral to Nekemte hospital, east wollega, Ethiopia, 2014.

Thus, this interview is prepared for this purpose to get appropriate information on magnitude and determinants of self-referral of patient at Nekemte general hospital, Nekemte. The information that I will obtain using this interview will be used only for research purpose and I need to assure you that confidentiality is my main quality. The study has no risk to you and your family members except mild time consuming. Therefore, I politely request your cooperation to participate in this interview. You do have the right not to respond at all or to withdraw in the meantime, but your input has great value for the success of my objective.

Thank you for your cooperation!!!

Do you agree to participate in this study? Yes, ---------- No----------, thank you!

Name of the data collector_____ Sign_____ Date----------

Part one- Socio-Demographics Characteristics

S.N	Questions	Response	code
101	Sex	1.male 2.female	
102	Current age in years		
103	Marital status	1.Single 2.Married 3.Divorced 4.widowed	
104	Educational status	1.Unable to read and write 2.Able to read and write 3.Grade 1-8 4.Grade 9-12 5.above 12	
105.	Occupational status	1. Government Employed 2.Merchant 3.Farmer 4.Student 5. Others----------	

106. Monthly family income. Amount in birr_____

107. Family size _____

108. Are you self-referred? 1 yes 2 no

109. How do you perceive the severity of your illness 1. Mild 2. Moderate 3. Sever

Part Two: **Organizational factor** and Respondents Satisfaction with health services at medical OPD

Health facility characteristics			
S.N	Characteristics	Response	Code
200	What type health facility is closer to your residence?	1.primary hospital 2. health center	
201	Is the health facility location convenient for	1.Yes	

	you?(place were the health facility built is appropriate for all community around)	2.No	
202	How much time it takes to you to reach the facility?(Travel time)	In hour	
203	Distance between your home and facility? (Distance from health facility)	In km	
204	Did you visited the closer health facility for your current health problem? If yes ,answer q203-	1.yes 2. no	
205	If yes ,how many times you visit the closer health facility for your current health problem? (Frequency of visit in 12 months)	1.once 2.twice 3.three times 4.>=four times	
206.	Was there any laboratory test ordered to you?	1.Yes 2.No	
207.	If yes, did you get all ordered laboratory service in the facility?	1.All,have got 2.Some,have got 3.Not at all	
208.	Did you get all prescribed drugs in the facility?	1.All,have got 2.Some,have got 3.Not at all	

300. your previous visit at Health facility you are satisfied with availability of drugs in this facility.

1. YES 2. NO

301. No overcrowding in the queue process of waiting area of closer health facility?

1. YES 2. NO

302. Closer health facility Waiting area was Clean, comfortable

1. YES 2. NO

303. Sitting chairs and equipments were available at waiting area(no broken chairs and tables) 1. YES 2. NO

304. Closer health facility rooms were Clean 1. YES 2. NO

305.Closer Health facility rooms were adequate in keeping my privacy

1. YES 2. NO

306. was compound of closer health facility was clean 1. YES 2. NO

307. was toilet of closer health facility was clean 1. YES 2. NO

Provider factor:- Circle only one option unless multiple option is specified

400. Did you visited CHF for before?(If yes answer q401-408)1. YES 2. NO

401. Is the type of provider was available in the closer health facility?

1. YES 2. NO

402. Did you get the type of provider you need during your visit at the closer health facility? 1. YES 2. NO

403. Which type of provider did you prefer at OPD?

1. GP provider 2. HO 3. Nurse 4. specialist

404 During your visit at health center, health care provider treated you with Courtesy and respect.(The way health care provider treating you in a very friendly and courteous manner, or seeming genuinely concerned, respecting you as a whole person and showing care and compassion) 1. YES 2. NO

405. During your visit at HC , health care provider listened carefully to you.(paying close attention to what you were saying: not looking at the notes or giving you a time to fully describe your condition in your own words; not interrupting, rushing or diverting you) 1. YES 2. NO

406. During your visit at HC, health workers explained things in a way you could understand (helpfulness of staffs in the facility in locating all the rooms for registration, examination, lab., and drug dispensing etc) 1. YES 2. NO

407. During your visit to HC, health care providers keep/maintain your privacy appropriately. (letting others to go to outside if they are in rooms or private room, using curtained screen etc) 1. YES 2. NO

408. During your previous visit at HC , health care provider provided you full Information

about your diseases and told you about ways of prevention of future recurrence and make a plan of action with you(the options, involving you in decisions as you want to be involved; not ignoring your view) 1. YES 2. NO

Part 5. Please rate / encircle on how much are you agree with the following statements regarding your **quality perception on previous visits** at the closer health facility.(only single option unless specified)

500.You perceive that the delivery of health services you received previously at all at the health facility closer to you includes quality of care . 1. YES 2. NO

501. Do you recommend the health facility to someone else in the future?

1. YES 2. NO

502. If you visit the closer health facility, you are confident that you can get right provider. 1. YES 2. NO

503. If you visit the closer health facility, you are confident that you can get right drug.

1. YES 2. NO

504.If you visit the closer health facility, you are confident that the provider can reach on the diagnosis of your current health problem. 1. YES 2. NO

505. If you visit the closer health facility, you are confident that your current health problem can be investigated with the laboratory service. 1. YES 2. NO

506. Do you think that clients visited closer health facility can get cured?

1. YES 2. NO

507. Do you have confidence on the closer health facility services1. YES 2. NO

508. If no to q 321 why?(multiple option)

1.many people don't get cure from service 2.no skilled provider

3.no stock of drug 4. lab service is not functional

5.no equipments and supplies for surgical procedures

Part 6 knowledge of patient

600. Do you know health center is the first referral level 1. YES 2. NO

601.Do you know the type of lab service that the closer health facility can provide you?

1. YES 2. NO

602.Do you know health facility has referral arrangement when necessary

1. YES 2. NO

603. Do you know the type of provider available at closer health facility?

1. YES 2. NO

604. Which type of service can be effectively provided at the closer health facility? (Multiple option)

1, delivery 2. Medical 3. Minor surgery 4 admission 5 dental 6. immunisation

605. did any health worker provide information regarding referral system?

. 1. YES 2. NO

Part. 7 .Perceived Technical Competencies/professional care

700 The provider examined me very thoroughly 1.yes 2. no

701 The provider carefully checked everything when examining me. 1.yes 2. no

702 The provider does everything needed to arrive to find what is wrong with me 1.yes 2. no

703 provider understands how I was ill 1.yes 2. no

704 The provider explained well what is wrong with me 1.yes 2. no

705 The provider I have seen has experience with my medical problems 1.yes 2. no

Part 8: - Questionnaire on overall determinants of self-referral. Circle only one option except when multiple option is specified. Only for self referred patient

800 Appointment with hospital provider 1.yes 2.no

801 Availability of Stock of drugs in hospital 1.yes 2.no

802 Direct access to specialist to save time 1.yes 2.no

803 R/n ship with particular specialist 1.yes 2.no

804 Requiring admission 1.yes 2.no

805 Preferring specific service at referral facility 1.yes 2.no

B .primary level attribute

806 If yes to q , what type of service you need at referral facility (multiple option)

1 x-ray service 2 ultrasound service 3.laboratory service

807 unavailability of provider I need in the health center for consultation.

1.yes 2.no

808 If no to q , what type of provider you need for consultation at the closer health facility can manage your current health

1.general practioner 2.health officer 3.Bsc nurse 4 other nurses

809 Relationship problem with provider at the health center (reception compassion, respect for privacy)

1.yes 2.no

810 health center provider verbally recommended me 1.yes 2.no

811 The service I need is available in the closer health center

1.yes 2.no

812 If no to q , which type of services are lacking in the closer health center.

1.laboratory service 2.proper consultation service

3.drug supply 4. if other, specify ----------

813 health center has no power supply 1.yes 2.no

814 Social influence (peoples enforced me to seek care at hospital like family,friend neighbor…)

1.yes 2.no