Factors associated with lost to follow up Tuberculosis patients on Tuberculosis treatment at Fort Portal Regional Referral Hospital, Kabarole District Western Uganda.

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PROBLEM STATEMENT

In 2012 Uganda had a TB incidence rate of 179/100,000 and 54% of TB patients were HIV positive (WHO, 2013). The TB mortality rate was 13/100,000 (in HIV Negative patients), and 25/100,000 in HIV positive patients (WHO, 2013).

A number of Ugandan studies revealed that TB was the leading cause of death in HIV patients, many of whom died before TB was confirmed by laboratory methods and many of them were lost to follow up (Kyeyune, et al., 2010, Amuron, et al., 2011and Moore, et al., 2011).

The Kabarole District Health Statistics of December ,2013 report.	
Number of patients enrolled	882
Completed treatment	43.8%
Had issues with treatment •Treatment failure •Transfers out •Lost to follow up	56.2% 0.2% 9.5% 46.5%
Lost to follow up (FPRRH)	**22%**

These statistics implies that many patients were not followed up and there was inadequate management of TB patients in Kabarole District.

1.3 OBJECTIVE OF THE STUDY

1.3.1 BROAD OBJECTIVE

The purpose of this study was to Assess factors associated with lost to follow up TB patients on TB treatment in Fort Portal Regional Referral Hospital, Kabarole District.
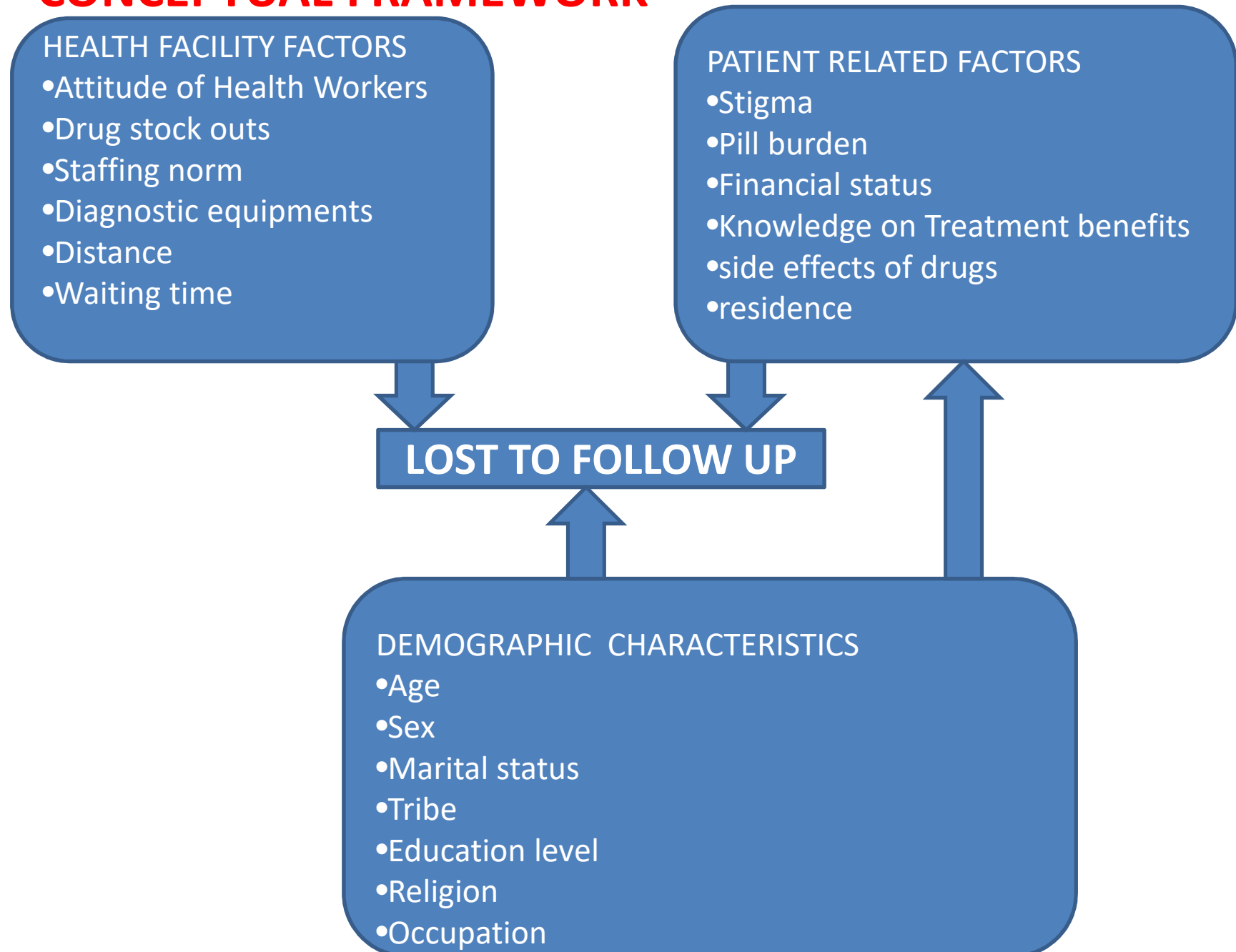
1.3.2 SPECIFIC OBJECTIVES

•To describe patients demographic characteristics that contributed to lost to follow up of TB patients.

•To establish the Health facility factors that would have contributed to lost to follow up of the TB patients.

•To determine the patient-related factors that would have contributed to lost to follow up.

•To determine which factors where the commonest cause of lost to follow up of TB patients.

1.4 RESEARCH QUESTIONS.

•What were the demographic characteristics that contributed to lost to follow up of TB patients?

•What were the Health facility factors that contributed to lost to follow up of the TB patients?

•What were the patient-related factors that contributed to their lost to follow up?

•Which factors commonly caused lost to follow up of TB patients?

CONCEPTUAL FRAMEWORK

HEALTH FACILITY FACTORS
- Attitude of Health Workers
- Drug stock outs
- Staffing norm
- Diagnostic equipments
- Distance
- Waiting time

PATIENT RELATED FACTORS
- Stigma
- Pill burden
- Financial status
- Knowledge on Treatment benefits
- side effects of drugs
- residence

LOST TO FOLLOW UP

DEMOGRAPHIC CHARACTERISTICS
- Age
- Sex
- Marital status
- Tribe
- Education level
- Religion
- Occupation

METHODOLOGY

- **The study area** was FPRRH.
- **Study design** was a cross sectional.
- **Target population** (patients that were initiated into anti TB drugs at baseline on 01st January 2012 to 31st December 2012 but were lost to follow up during the course of the treatment till December 2013 they were my cases)
- **Data collection; questionnaires and checklists.**
- **Ethical consideration** Informed consent , study was voluntary and confidentiality was observed.

RESEARCH FINDINGS.
Table 1: Description of the Demographic characteristics (n=368)

Factor	Frequency	Percentage		Factor	Frequency	Percentage
Age group				Marital status		
16-20	13	3.53 %		Married	134	36.41 %
21-25	112	30.43 %		Separated	50	13.59 %
26-30	62	16.85 %		Co habiting	37	10.05 %
31-35	93	25.27 %		Single	68	18.48 %
36-40	36	9.78%		Widow	79	21.47%
41-45	29	7.88 %		Occupation		
46 99	23	6.25%		Business person	44	11.96 %
Education level				Substance farmer	204	55.43 %
None	74	20.11%		Formal employment	120	32.61 %
Primary	175	47.55%		Sex		
Secondary& above	119	32.34%		Female	193	52.45%
Religion				Male	175	47.55 %
Catholic	140	38.04%		Tribe		
Anglican	106	28.80 %		Baganda	36	9.78 %
Born again Christian	20	5.43%		Batooro	151	41.03 %
Moslem	102	27.72%		Banyoro	43	11.68 %
				Banyankole	62	16.85 %
				Bakiga	76	20.65 %

Table 2: Patients outcome of care Verses Demographic Characteristic (n=368)

Demographic Characteristics	Outcome of care		Chi Squared Test	P Value
Sex	Lost to follow up (184)	Remained in care (184)		
Female (193)	100(51.81%)	93(48.19%)	0.5339	P=0.465
Male (175)	84(48.00%)	91(52.00%)		
Education level				
None (74)	72(97.3%)	2(2.7%)	92.9221	P< 0.001
Primary level (175)	80(45.71%)	95(54.29%)		
Secondary level and above (119)	32(26.89%)	87(73.11%)		
Occupation				
Business person(44)	44(100.00%)	0(0.00%)	66.8471	P< 0.001
Subsistence Farmer (204)	106(51.96%)	98(48.04%)		
Formal Employment (120)	34(28.33%)	86(71.67%)		
Marital status				
Married (134)	102(76.12%)	32(23.88%)	152.2264	P< 0.001
Separated(50)	4(8.00%)	46(92.00%)		
Co habiting (37)	18(48.65%)	19(51.35%)		
Single (68)	54(79.41%)	14(20.59%)		
Widow (79)	6(7.59%)	73(92.41%)		
Age				
16-20 (13)	8(61.54%)	5(38.46%)	2.4261	P=0.877
21-25 (112)	56(50.00%)	56(50.00%)		
26-30 (62)	30(48.39%)	32(51.61%)		
31-35 (93)	42(45.16%)	51(54.84%)		
36-40 (36)	20(55.56%)	16(44.44%)		
41-45 (29)	16(55.17%	13(44.83%)		
46 99 (23)	12(52.17%)	11(47.83%)		

Table 3: patient factors verses the outcome of care (n=368)

FACTORS	Outcome of care		Chi squared Test	P Value
Knowledge	Lost to follow up	Remained in care		
Not knowledgeable (n=148)	142(95.95%)	6(4.05%)	209.0457	P< 0.001
knowledgeable (n=220)	42(19.09%)	178(80.91%)		
Stigma				
Absent (n=128)	41(32.03%)	87(67.97%)	25.347	P< 0.001
Present (n=240)	143(59.58%)	97(40.42%)		
Residence				
Rural (n=294)	168(57.14%)	126(42.86%)	29.8378	P< 0.001
Urban (n=74)	16(21.62%)	58(78.38%)		
Patients waiting time				
Less than 1 hour (n=159)	55(34.59%)	104(65.41%)	28.8870	P< 0.001
1-2 hours (n=169)	100(59.17%)	69(40.83%)		
3-5 hours (n=40)	29(72.50%)	11(27.50%)		
Pill burden				
Absent (n=39)	1(2.56%)	38(97.44%)	39.2637	P< 0.001
Present (n=329)	183(55.62%)	146(44.38%)		
Side effects				
No (n=95)	38(40.00%)	57(60.00%)	5.1223	P=0.024
Yes (n=273)	146(53.48%)	127(46.52%)		
Distance				
0-5 kms (n=146)	47(32.19%)	99(67.81%)	22.9021	P< 0.001
6kms and above (n=222)	128(57.66%)	94(42.34%)		

Table 4: Health Facility Factors.

Factor	Number required	Number available	Variance deficit
Staffing			
• Medical Officers	1	1*(comes really like once in 3 months)	1(100%)
• Clinical Officers	1	Nil	1(100%)
• Nursing Officers	1	Nil	1(100%)
• Assistant Nursing Officers	3	1	2(67%)
• Enrolled Nurses	3	1	2(67%)
• Nursing Aides	Nil	02	Nil
Diagnostic equipments			
• X ray machine	1	1	Nil
• Gene Xpert machine	2	1	1(50%)
• Microscopes	3	1	2(67%)
Stock			
• Drug stock in	1 every month	1 every 2 months	1(50%)
• Drug stock outs	Nil	1 every month	
• Reagents stock in	1 every month	1 every 3 months	2(67%)
• Reagents stock outs	Nil	1 every 2 months	
Waiting time			
• Before initiation to anti TBs	1 day	2-7 days	>49%
• During drug pick ups	10 minutes	45 minutes	5(50%)

CONCLUSIONS

- **Stigma**, **residence**, **knowledge**, **side effects** and **pill burden** were the patient related factors that contributed lost to follow up of TB patients who were on TB treatment.
- The **distance**, **drug stock outs** and **long waiting time** were among the Health Facility factors that contributed also to patient's lost to follow up from TB treatment.
- **Marital status**, **level of education** and **occupation** of the patients where the Demographic characteristics that had a strong association to lost to follow up .
- Lost to follow up of TB patients was commonly caused by patient's related factors, Health Facility Factors, and demographic factors.

RECOMMENDATIONS

• There is need to intensify **Health Education campaign** on TB.

• There is need to **decongest Fort Portal Regional Referral Hospital.**

• MOH Uganda and DHO Kabarole should **recruit more Health Workers and refresher trainings on staffs.**

• All Health Facility Heads in Kabarole District must have **supervised out reaches to reach out to the communities for Health Education**

• There is need to include **the religious leaders** in the fight against TB in Kabarole District by the DHO.

• There is need for the MOH Uganda to have **a discussion with the pharmaceutical** companies that supply Uganda with anti TB drugs to consider making small size anti TB drugs since most patients are getting lost to follow up because of the complex regimen and the big size of the tables which were difficult to swallow.