

Intention to Use Institutional Delivery and Associated Factors among ANC Attendants in Wollaita Soddo Town, Southern Ethiopia: A Cross-Sectional Community Based Study, Application of Theory of Planned Behavioral Model

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Abstract Background: - Ensuring institutional delivery for each child birth is the most critical intervention in reducing maternal and neonatal mortality and morbidity. In Ethiopia the proportions of births delivered in health institutions is very low and even for women who have access to the services. The proportion of birth occurring in health facilities is only 16%. **Objective:** - To investigate intention of pregnant women to use institutional delivery and associated factors from March to April 2016. **Methods:** - A Community based cross-sectional study was conducted in Wollaita Soddo town. Theory of Planned Behavior was employed to evaluate intention of pregnant women for delivery utilization. Data was collected by using pre-tested, structured questionnaire. The data collected was checked for its completeness and consistency, coded, entered and cleaned by using Epi data 3.5.1 and exported to SPSS version 20.00 statistical software. Data analysis was done for proximal and distal variables differently based on their presence in the model. **Result:**-A total of 326 pregnant women who had ANC follow up were included in the study. On multiple logistic regression husband's occupational status and informed about delivery places were statistically significantly associated with intention to use institutional delivery among ANC attendants from distal variables and Attitude and subjective norms were statistically significantly associated with intention from proximal variables. The odds of intention to use institutional delivery among pregnant women who were informed about delivery places was 2.658 times more likely than those who were not informed about delivery places AOR=2.658(1.357, 5.207) at P-value 0.005. Those women whose husbands' were employed were 2.2 times more likely to intend to use institutional delivery than women whose husbands' were not employed (AOR=2.2(1.308, 3.7) at P-value 0.003. **Conclusion:**-The study concluded that the intention of giving birth at health institution increased with positive attitude towards institutional delivery, being informed by health professionals about the place of delivery and husband's occupational status being employed and decreased with subjective norms.

Keywords: *intention, attitude, subjective norms, perceived behavioral control, institutional delivery*

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1. Background

An estimated global total of 13.6 million women have died in the 25 years between 1990 and 2015 due to maternal causes [1]. The majority of maternal health complications and deaths occurred in low and middle income countries where three quarters of the deaths are due to preventable direct obstetric complications [2,3,4,5,6].

Institutional delivery service utilization is one of the key and proven interventions to reduce maternal death. It ensures safe birth, reduce both actual and potential

complications and maternal death and increase the survival of most mothers and newborns. But most deliveries in developing countries occur at home without skilled birth attendants [1,7]. Many low and middle income countries tried their best to optimize key and effective maternal health interventions to improve maternal health [8]. However the progress made was low in many developing countries.

Intention of pregnant women to utilize institutional delivery is affected by socio-demographic variables; household monthly income, health institution, mother occupation and husband occupation had significant effect on the odds of giving birth at health institutions and five

variables (perceived susceptibility, perceived barriers, self-efficacy, being able to make decision on her own and being informed where to delivery were predictors of the probability of giving birth at health institution [9].

In SNNPR, 83.7% of women gave birth at home which is the fourth highest home delivery rate among the nine Ethiopian regions [7]. Socio-economic, socio-demographic, ANC attendance and health services related factors were factors associated with institutional delivery service utilization in studies conducted in Africa (including Ethiopia) and Southern Asia.

Research has shown that adequate use of Antenatal Care (ANC) and delivery services can reduce maternal deaths from 10 to 45%, especially in the developing countries [10,11] and progress has been documented with regard to utilization of maternal health services

2. Methods and Materials

2.1. Study Area and Period

The study was conducted in Wollaita Soddo town, located 327 Km South of Addis Ababa, Ethiopia and 164 Km from Hawassa, capital city of SNNPR. Administratively the town has 18 Kebeles (kebele is the lowest administrative unit in Ethiopia). The town has a total population of 136,786 and female population 68,668 projected from Ethiopian 2007 census [15]. The town has ANC coverage of 82% but only 46% of them delivered in the health institutions from Town 2015 woreda health office report. The town has one governmental hospital and one private hospital, 3 health centers, 11 health posts, 37 private clinics and 25 drug stores and 2 diagnostic laboratories [16]. The study was carried out from March to April 2016.

2.2. Sample Size Determination and Sampling Technique

The sample size was determined taking 74.3% estimated magnitude of intention to utilize institutional delivery Northwest Ethiopia (since northwest had nearly similar health infrastructure, socio-economy and culture with southwest) [9]. Assuming 5% margin of error, 95% confidence level and 5% non-response rate, the total sample size calculated was 326. For sampling, simple random sampling method was used. Out of 18 kebeles (kebele is the lowest administrative unit in Ethiopia) in the district, 6 kebeles were randomly selected for this study (that is 30% of the kebeles, kebeles were assumed homogenous to the study variables). Within these 6 kebeles, 1060 pregnant women were identified who had at least one ANC visit in health facilities from urban health extension professionals' record before data collection. Sampling frame of household was obtained for each pregnant women who had at least one ANC visit in health facilities. For selection of respondents in each kebele Population proportionate to size (PPS) technique was employed. The respondents from the sampling frame of the eligible households were selected by lottery method. Finally, the selected participant pregnant women were interviewed by going every household according to their

respective household number until the required sample size was achieved in each of the kebele.

2.3. Data Collection Technique

Data was collected by using pre-tested, structured questionnaire. All instruments for this study were tailored from diverse literature and were modified to fit the institutional delivery utilization behavior sphere [9-13]. The questionnaire was based on variables included in the theory of RAA/TPB. An interviewer administrated questionnaire was used by six data collectors who were diploma holders at participant's household by Amharic language. Training was given for both data collectors and supervisors on the process of data collection, study tool for clarity and completeness. The supervisor followed the daily process of data collection for its completeness and collected data daily from data collectors.

2.4. Data Analysis Methods

The data collected was checked for its completeness and consistency, coded, entered and cleaned by using Epi data version 3.5.1 and exported to SPSS version 20.00 statistical software. Descriptive and bivariate analysis was computed to test whether there was association between dependent variable and selected independent variables. Bivariate analysis was computed to test whether there was association between dependent variable and independent variables and variables with P-value <0.25 made candidate for Multivariable analysis. Data analysis was done for proximal and distal variables differently based on their presence in the model. Multiple logistic regression analysis was done to see which of the variables, with strong association during bivariate analysis, were important predictors of intention to use institutional delivery among ANC attendants. The output of the regression was assessed for Hosmer-Lemshow goodness of fit. Multiple logistic regression analysis was done to see which of the variables, with significant association during bivariate analysis, were important predictors of intention to use institutional delivery among ANC attendants. Variables with P-values ≤ 0.05 were considered as statistically significant. Adjusted Odds ratio was used to declare statistically significant association of dependent and independent variables.

2.5. Data Quality Control

Questionnaire developed in English and translated to Amharic and back to English. Questionnaire was pre-tested on 5% of the total sample size in Areka town before it was used for actual data collection. Cronbach's Alpha was calculated to test internal consistency (reliability) of the items and value greater than 0.7 were considered as reliable. In addition to this, content validity was cross checked by maternal and reproductive health expert.

Data collectors and supervisors were given training on the procedure of data collection and interviewing technique. Supervisor followed data collection process daily. Data collected was checked for completeness and consistency on daily basis. Double data entry method was employed using Epi-data to avoid data entry errors.

2.6. Ethical Issues

Ethical clearance was obtained from Jimma University Institutional review board (IRB) committee and letter of permission was taken from Soddo town Health office. All the study participants were fully informed about the purpose of the study, their right to refuse, assurance of confidentiality and privacy during interview. Oral informed verbal consent was obtained from every respondent. Strict confidentiality was also maintained through anonymous recording and coding of questionnaire.

2.7. Definitions

- Behavioral intention (BI): is an indication of a person's readiness to perform a given behavior or action.
- Attitude: A person's overall evaluation of institutional delivery as being positive or negative.
- Subjective norm: A person's perception of the social pressure to utilize institutional delivery or not.
- Perceived behavioral control: The extent to which a woman feels confident to utilize institutional delivery or not.
- Beliefs: - are concepts and ideas that are accepted and thought to be true
- Institutional delivery: Child birth taken place in health facilities that is health centers and hospitals.

3. Results

3.1. Socio-demographic Characteristics

A total of 326 pregnant women who had antenatal care were interviewed. Their mean age was 23.43 ± 4.3 SD. One hundred forty three (43.9%) were in the age range of 20 – 24 years. Three hundred twenty one (98.5%) women were married. Sixty three (19.3%) were illiterate and 112(34.4%) were able to read and write. One hundred fourteen (34%) women had attended secondary education and above while 97 (29.8%) attended primary education.

Two hundred forty five (75.2%) of mothers were housewives, 234(71.8%) were protestant and 290 (89%) were Wollaita. Ninety seven (28.9%) of husbands completed primary education while 84(25.8%) were able to read and write. One hundred thirty five (41.4%) husbands were not employed and 118(36.2%) were private employed. (Table 1).

3.2. Obstetrics Characteristics of the Pregnant Women in Wollaita Soddo Town

Majority of the women 222(68.1%) married at the age of 14-20 and 104(31.9%) married at the age of 20-26. One hundred eighty (55.2%) became pregnant at the age of 20-24 and 119(44.2%) became pregnant for the first time at the age of 15-19. One hundred sixty six (50.9%) were primigravida (pregnant for the first time) and 102(31.3%) women 2-3 times and 41(15.6%) were 4-5 times pregnant.

One hundred eight six (51.5%) were para zero and 99(30.4%) were para one (had one child).Sixteen (4.91%) women had history of abortion and 9 (2.8%) had still birth.

From the women who gave birth previously 86(53.4%) gave birth in health facility while 75 (46.6%) gave birth at home. Two hundred eighty seven (91.1%) women had planned while 29(8.9%) had not planned current pregnancy.

One hundred seventy nine (74.9%) started ANC at second trimester and 118(36.2%) started at first trimester.

Two hundred fifty five (78.2%) informed about possible pregnancy and delivery complications.

Most frequently informed complication was vaginal bleeding 238(73%) followed by head ache 158(48.5%) and blurred vision 67(20.6%). Two hundred eight two (86.5%) women were informed about delivery places (Table 2).

Table 1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF MOTHERS AND THEIR HUSBANDS (N = 326) IN WOLLAITA SODDO TOWN, SNNPR, MAY, 2016

Factor	Frequency (%)
Age of Mother	
16-19	50(15.3)
20-24	143(43.9)
25-29	95(29.1)
30-35	38(11.7)
Marital status	
Single	5(1.5)
Married	321(98.5)
Educational status	
Illiterate	63(19.3)
Read and write	112(34.4)
Primary education	93(28.5)
Secondary education and above	58(17.8)
Religion	
Protestant	234(71.8)
Orthodox	83(25.5)
Catholic	8(2.5)
Muslim	1(0.3)
Ethnicity	
Wollaita	290(89)
Gamo	26(8)
Amhara	10(3.1)
Occupation of respondents	
House wife	245(75.2)
Employed by Government	36(11)
Private employed	42 (12.9)
Other	3(0.9)
Education of husbands	
Illiterate	31(9.5)
Read and write	84(25.8)
Primary education	97(29.8)
Secondary education and above	114 (35)
Occupation of Husband (n=326)	
Not employed	135(41.4)
Government employed	70(21.5)
Private employed	118(36.2)
Other	3(0.9)

Table 2. DISTRIBUTION OF OBSTETRICS CHARACTERISTICS OF THE PREGNANT WOMEN IN WOLLAITA SODDO TOWN, SNNPR, MAY, 2016

Factor	Frequency (%)
Age at marriage	
14-19	170(52.1)
20-24	144(44.2)
25-29	12(3.7)
Age at first pregnancy	
15-19	119(36.5)
20-24	180(55.2)
25-29	27(8.3)
Gravidity	
Primigravida	166(50.9)
2-3	102(31.3)
4-5	41(15.6)
>=6	11(5.2)
Parity	
0	51.5
1-3	47.2
>=4	1.2
Abortion	
Yes	16(4.91)
No	310(95.1)
Still birth	
Yes	9(2.80)
No	317(97.2)
Status of pregnancy	
Planned	297(91.1)
Not planned	29(8.9)
Gestational age in months	
1-3	23(7.1)
4-6	119(36.5)
7-9	184(56.4)
Number of ANC	
First	70(21.5)
Second	159(48.8)
Third	58(17.8)
Fourth	39(12)
Trimester	
First	118(36.2)
Second	179(54.9)
Third	29(8.9)
Informed about delivery places	
Yes	282(86.5)
No	44(13.5)
Knowledge of advantages of ANC	
Maternal health	280(85.9)
Fetal health	223(68.4)
Fetal lie	186(57.1)
Anticipate delivery complications	167(51.2)
I don't know	1(0.3)

From the women who gave birth previously 86(53.4%) gave birth in health facility and 75 (46.6%) gave birth at home. From the respondents who delivered in the health facility 67(50.4%) said that the reason they delivered in the health facility was better services in the health facility, 34(25.7%) responded better outcome of institutional

delivery and 32(24.1%) responded difficult labor (Table 3).

Table 3. DISTRIBUTION OF PAST DELIVERY PLACES AND REASONS GIVEN BY PREGNANT WOMEN WOLLAITA SODDO TOWN, MAY 2016

Variables	Frequency (%)
Health Facility	86(53)
Home	75(46.6)
Reasons for last health facility delivery	Frequency (%)
Better services in the HF	67 (50.37)
Better outcome of ID	34(25.56)
Due to difficult labor	32(24.06)
Reasons for last home delivery	
I fell more comfortable just being at home	62(48.06)
Close attention from relatives & family numbers	46(35.66)
My usual practice	14(10.85)
I don't like the service in the HF	7(5.34)

HF-health facility, ID-institutional deliver.

3.3. Distribution of Intention to Use Institutional Delivery for Current Pregnancy and Reasons Given by Pregnant Women

From the total of 326 pregnant women in this study 246(75.5%) intended to use institutional delivery and 80(24.5%) intended to use home delivery. From pregnant women who intended to deliver in health facility 219 gave the reason for their intention was better outcome of institutional delivery, 12 women gave good approach of health workers and 2 respondents responded better services in health facility.

From those women intended to deliver in home, 48(60%) women gave the reason was I feel more comfort just being at home, 17 (21.3%) women gave close attention from relatives and family, 6(7.5%) women responded my usual practice and 9(11.3%) women responded I don't like the service in the health facility. (Table 4).

Table 4. DISTRIBUTION OF INTENTION AND REASONS GIVEN TO INTEND TO DELIVER IN HEALTH FACILITY AND HOME AMONG RESPONDENTS IN WOLLAITA SODDO TOWN, MAY, 2016

Intention to use institutional delivery	Frequency (%)
Health Facility	246(75.5%)
Home	80(24.5)
Reasons to intend to deliver in health facility	
Better services in the HF	2(0.858)
Better outcome of ID	219(93.9)
Good approach of H. workers	12(5.15)
Reasons to intend to deliver in Home	
I fell more comfortable just being at home	48(60)
Close attention from relatives & family members	17(21.25)
My usual practice	6(7.5)
I don't like the service in the HF	9(11.25)

3.4. Psychosocial Variables (Constructs of TPB)

A total score for the measurements was obtained by summing across all items and ranged 10 to 50 for attitude, 9 to 45 for SN and 3 to 15 for PBC. Higher scores indicated a more positive attitude, SN and PBC toward institutional delivery.

Majority of women 236(72.4%) had good attitude towards maternal health services and the rest 90(28.6%) had bad attitude towards maternal health services. Regarding attitude towards health professionals 68(20.9%) mothers had good attitude towards health professionals in the health facilities and 258(70.1%) mothers had bad attitude towards health professionals.

One hundred thirty six (41.7%) women had good attitude towards TBAs and the remaining 190(58.3%) had bad attitude towards TBAs. Majority 173(54.3%) had

positive perceived social norms and 149(45.7%) women had negative perceived social norms regarding maternal health service use. One hundred forty nine women (45.7%) had negative Perceived social norms towards male health professionals' involvement in maternal health care services provision. (Table 7)

One hundred seventy four (53.4%) had positive personal norms and 152(46.6%) had negative personal norms towards maternal health care service utilization.

Ninety three (28.5%) women were confident to get maternal health care services without consulting others and 233(71.5%) were not confident to get the Services by their own. (Table 5).

Mean score of respondents for overall items;

The mean score of respondents for all attitude items were 31.21(SD±2.77), while it was 21.78(SD=±4.03) and 12.23(SD=±1.33) for subjective norm and perceived behavioral control respectively.

Table 5. PREGNANT WOMEN'S RESPONSE SQUARE OF ITEMS MEASURING ATTITUDE, SUBJECTIVE NORM AND PERCEIVED BEHAVIORAL CONTROL IN WOLLAITA SODDO, MAY 2016

Characteristics	Sum of scores for each item (Likert's 5 point scale) (%)				
	Strongly disagree (No, %)	Disagree	I don't know (No, %)	Agree (No, %)	Strongly agree (No, %)
Delivering at home helps reduce labour complications	218(66.9)	101(31)	2(0.6)	5(1.5)	0(0)
Delivering at the clinic helps reduce labour complications	5(1.5)	3(0.9)	3(0.9)	163(50)	152(46.6)
Attending ANC and PNC helps reduce pregnancy and labour complications.	0(0)	9(2.8)	12(3.7)	230(70.6)	75(23)
Nurses are caring to the mothers during ANC and labour.	4(1.2)	16(4.9)	12(3.7)	244(74.8)	50(15.3)
Nurse-midwives show respect towards mothers during ANC and delivery.	3(0.9)	11(3.4)	22(6.7)	244(74.8)	46(14.1)
When attending to mothers during labour, nurses show enough skills and care to avoid labour complications	1(0.3)	7(2.1)	45(13.8)	223(68.4)	50(15.3)
Nurses at the clinic provide mothers with quality services	0(0)	16(4.9)	56(17.2)	212(65)	42(12.9)
Being delivered by TBAs is safer	210(64.4)	101(31)	9(2.8)	4(1.2)	2(0.6)
Delivering with the help of TBAs leads to favorable mother and baby outcomes	215(66)	93(28.5)	13(4)	4(1.2)	1(0.3)
TBAs show respect to the mothers	0(0)	35(10.7)	94(28.8)	165(51.5)	34(10.4)
Most pregnant women in my community do not start ANC visits early	0(0)	30(9.2)	94(28.8)	168(51.5)	34(10.4)
Most women in my community delay ANC visits until the pregnancy is large enough	4(1.2)	67(20.6)	93(28.5)	128(39.30)	34(10.4)
Most women in my community believe that it is not good to expose a young pregnancy to health professionals	19(5.8)	115(35.3)	49(15)	125(38.3)	18(5.5)
Most people in my community think that it is not appropriate for pregnant women to expose their nakedness to a male nurse	70(21.5)	198(60.7)	18(5.5)	40(12.3)	0(0)
Most people in my community think that it is embarrassing for a pregnant woman to be delivered by a male nurse	76(23.3)	200(61.3)	20(6.1)	29(8.9)	1(0.3)
Most of my friends think we should not be delivered by male nurses/midwives	71(21.8)	170(52.1)	65(19.9)	19(5.8)	1(0.3)
It is good to delay ANC until 6 or 7 months	97(29.8)	207(63.5)	6(1.8)	12(3.7)	4(1.2)
It is embarrassing for a woman to be delivered by a male nurse	76(23.3)	192(58.9)	13(4)	40(12.3)	5(1.5)
I can deliver at home if I see that my friends have no complications	183(56.1)	117(35.9)	1(0.3)	19(5.8)	6(1.8)
I am confident I can start ANC visits early at 3 or 4 months	8(2.5)	6(1.8)	3(0.9)	238(73)	71(21.8)
I am confident I can go to the clinic early enough and stay in the mother's shelter as I wait for labour	1(0.3)	22(6.7)	13(4)	242(14.7)	48(14.7)
I am confident I can decide to go the clinic without consulting	2(0.6)	2(0.6)	0(0)	258(79.1)	64(19.6)

Table 6. SOCIO-DEMOGRAPHIC PREDICTORS OF INTENTION TO USE INSTITUTIONAL DELIVERY AMONG ANC ATTENDANTS, IN WOLLAITA SODDO TOWN, MAY 2016. (BIVARIATE ANALYSIS)

Variables	Sig.(P-Value)	COR(95%CI)
Age of mother		
≤20	0.648	0.719(0.177,2.92)
20-34	0.645	1.127(0.289,0.394)
≥35		1.00
Marital status		
Married	0.735	0.683(0.075,6.195)
Single		1.00
Educational status		
Illiterate	0.701	0.849(0.367,1.962)
Read and write	0.805	0.909(0.428,1.933)
Primary education	0.638	0.831(0.384,1.798)
Secondary and above		1.00
Occupation of mother		
House wife	0.528	1.202(0.679,2.129)
Employed		1.000
Husband's educational status		
Illiterate	0.334	0.652(0.274,1.553)
Read and write	0.438	0.776(0.409,1.472)
Primary education	0.473	1.274(0.657,2.469)
Secondary and above		1.00
Husband' occupational status		
Not employed	0.002*	2.229(1.335,3.720)
Employed		1.00

* COR –crude odds ratio, significant at P<0.25*

Table 7. BIVARIATE ANALYSIS OF OBSTETRIC PREDICTORS OF INTENTION TO USE INSTITUTIONAL DELIVERY AMONG ANC FOLLOWERS, IN WOLLAITA SODDO TOWN, MAY 2016

Variables	P-Value	COR(95% CI)
Age at Marriage		
>20	0.79	0.928(0.538,1.603)
20-34		1.00
Age at first Pregnancy		
>20	0.427	1.23(0.738,2.05)
20-34		1.00
Gravidity		
Primigravida	0.946	0.983(0.593,1.628)
Multi		1.00
Para		
0	0.752	1.085(0.655, 1.797)
≥1		1.00
Abortion		
Yes	0.583	1.432(0.398,5.159)
No		1.00
Still birth		
Yes	0.173*	0.394(0.103,1.505)
No		1.00
Place of last birth		
Home	0.856	0.946(0.522,1.716)
Health facility		1.00
Status of pregnancy		
Planned		1.00
Not planned	0.397	1.432(0.624,3.287)
Gestational Age in Months		
3-5	0.131	0.606(0.301,1.217)
6-9		1.00
Trimester ANC started		
First	0.26	1.685(0.68,4.179)
Second	0.335	1.534(0.643,3.66)
Third		1.00
Number ANC		
First	0.993	0.996(0.406,2.442)
Second	0.82	1.098(0.49, 2.458)
Third	0.866	1.084(0.425,2.767)
Fourth		1.00
Information on complication of Pregnancy and delivery		
Yes	0.120**	1.59(0.886,2.853)
No		1.00
Informed about delivery places		
Yes	0.003**	2.753(1.422,5.33)
No		1.00

Significant at P-Value ≤0.25.

Table 8. MULTIPLE LOGISTIC REGRESSION ANALYSIS OF DISTAL FACTORS WHICH WERE SIGNIFICANTLY ASSOCIATED WITH INTENTION

Variables	Intention		COR (95%)	AOR(95%CI)
	Health facility (%)	Home (%)		
Husband's occupational status				
Employed	156(81.7)	35(18.3)	2.229(1.3,3.7)	2.2(1.308,3.7)
Not employed	90(66.7)	45(33.3)	1.00	1.00
Gestational Age in Months				
3-5	101(71.1)	41(28.9)	0.66(0.301,1.217)	0.699(0.322,1.515)
6-9	145(78.8)	39(21.2)	1.00	1.00
Still birth				
Yes	5(5.6)	4(44.4)	0.394(0.103,1.505)	0.349(0.88,1.389)
No	241(76)	76(24)	1.00	1.00
Informed pregnancy and delivery complication				
Yes	197(77.3)	58(22.7)	1.59(0.886,2.853)	0.613(0.255,1.478)
No	47(68.1)	22(31.9)	1.00	1.00
Informed about delivery places				
Yes	221(78.4)	61(21.6)	2.753(1.422,5.33)	2.658(1.357,5.207)
No	25(56.8)	19(43.2)	1.00	1.00

Significant at P-value<=0.05.

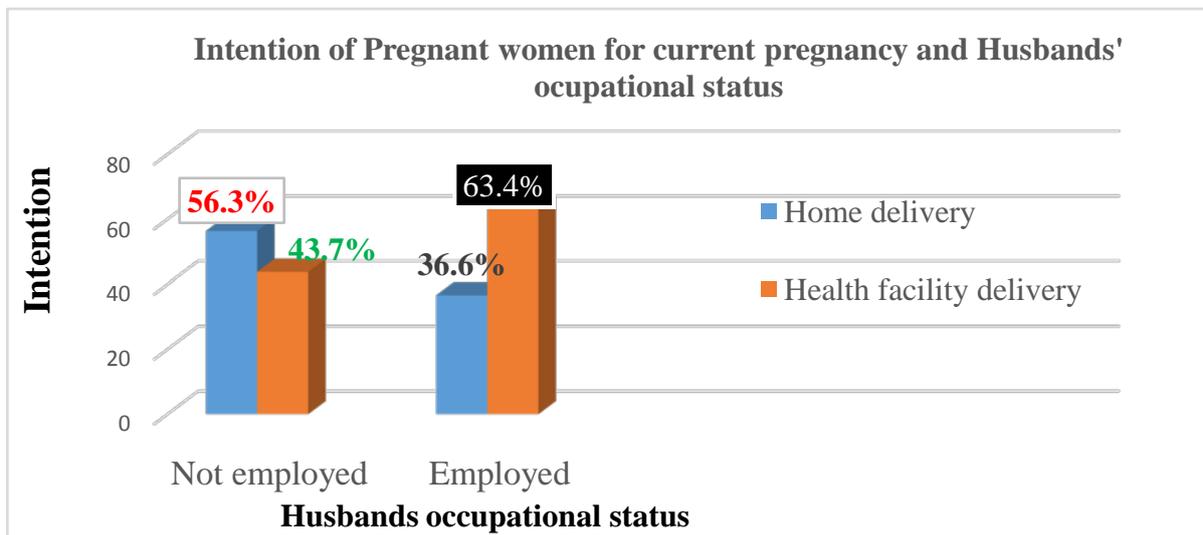


Figure 1. INTENTION OF PREGNANT WOMEN TO DELIVER CURRENT PREGNANCY AND HUSBAND'S OCCUPATIONAL STATUS

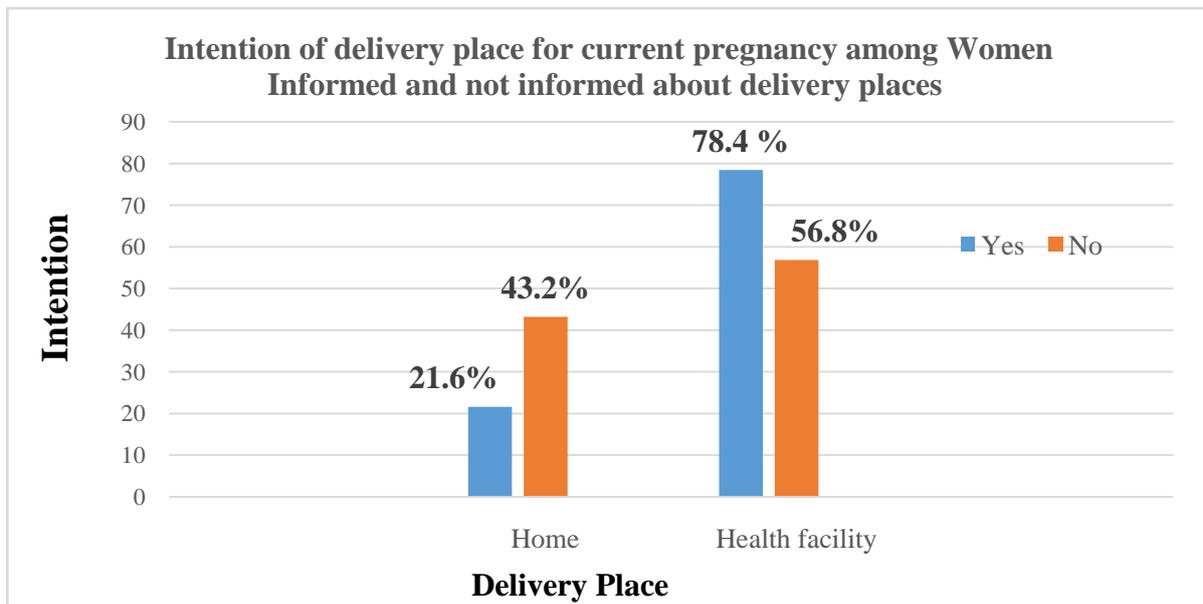


Figure 2. INTENTION OF DELIVERY PLACES FOR CURRENT PREGNANCY AMONG WOMEN INFORMED AND NOT INFORMED ABOUT DELIVERY PLACE

Table 9. REGRESSION ANALYSIS OF PROXIMAL VARIABLES (CONSTRUCTS OF THE TPB)

Variables	COR (95%)	AOR(95%CI)
Attitude	0.905(0.827,0.994)	0.911(0.83, 0.971)
Subjective norms	1.089(1.023,1.16)	1.087(1.02,1.158)
Perceived behavioral control	0.844(0.698,1.021)	0.913(0.746,1.118)

4. Discussion

This study revealed that prevalence of intention to use institutional delivery services in current pregnancy is 246(75.5%).

Moreover, the study showed positive associations with intention for husband's occupational status and informed about delivery places were identified.

This finding is in line with study conducted in Debre Markos town which showed 292(74.3%) of pregnant women intended to use institutional delivery among ANC attendants [9]. This consistency in proportion might be due to increased willingness of pregnant women to deliver health facility for the past five years due to increased work on maternal and child health.

This study showed that majority of mothers 236(72.4%) had favorable (good) attitude towards institutional delivery utilization. This is different from study conducted in Debre Markos which showed 98 (50.4%) have good attitudes towards institutional delivery [9]. This difference might be due to current extensive work on information, education and communication on advantages of institutional delivery service.

This study showed that among the sociodemographic variables husband's occupational status had statistically significant association with intention to use institutional delivery (AOR=2.2(1.308, 3.7) at P-value 0.005 and this study is consistent with study conducted in West Shewa Zone of Oromia which showed that husband occupation had significant effect on the odds of giving birth at health institutions AOR=2.84 (1.02-7.85) [12].

This might be due to employed husbands' had access to information on maternal service utilization and they may initiate their wives to use institutional delivery service.

The finding of this study revealed that women who were informed about delivery places were 2.66 times more likely to intend to utilize institutional delivery than those women who were not informed about delivery places (AOR= 2.658(1.358, 5.207) at P-value 0.005). The finding is inconsistent with study conducted in West Shewa Oromia which revealed that women who were not informed where to deliver were 80% less likely to intend to use institutional delivery compared with women who were not informed where to deliver AOR= 0.20 (0.05-0.86).

This difference might be due to Women access to information regarding place of delivery and advantages of facility delivery in all health facilities which provide ANC service and this may initiate women to intend to use institutional delivery.

This study showed that among psychosocial variables, attitude and subjective norms significantly affect the odds of intending to utilize institutional delivery among ANC attendants in contrast to study conducted in Kalomo Zambia which identified women's perceived behavioral

control as one of the most important factors influencing mothers intention to utilize institutional delivery among ANC followers [13]. This difference might be due to women's low level awareness regarding institutional delivery service utilization in the study area. The finding of this study is supported with the finding of qualitative study conducted in Tanzania which showed that failure of providers to convey information about the importance of skilled delivery care for all women significantly affects the odds of intention to use institutional delivery among ANC attendants [14].

5. Conclusion and Recommendation

The study concluded that the intention of giving birth at health institution is statistically significantly associated with being informed by health professionals about the place of delivery and Husband's occupational status and the intention of pregnant women to utilize institutional delivery is low in the study area. Based on the findings of the study I recommend health care providers should take into account these factors to promote institutional delivery.

5.1. Health Care Providers

Have to counsel all ANC clients on danger signs during pregnancy and delivery places to promote institutional delivery.

Increase awareness creation on institutional delivery service utilization.

Have to counsel all ANC pregnant women with their husbands.

5.2. Town Health Office

Address all pregnant women in the town to start ANC early through integrated work by local media and with urban health extension professionals.

5.3. Researchers

Since the study was based on town and may not be generalized to all pregnant women in rural settings it deems further study particularly in rural setting.

This study was Cross-sectional in design, so I recommend researches to conduct study using strong designs (follow-up study).

5.4. Strengths of the Study

Being community based is an advantage for representing the community of Town as compared to being facility based. Moreover, Professional data collectors (being Health professionals) used was an advantage for effective collection of medical information from the respondent's.

5.5. Limitation of the Study

First, this findings are based on interviewer-administered questionnaires. The interviewees' responses may have been influenced by the interviewer's presence, the manner

in which the questions were posed. In addition, the cross-sectional design of the study made it not possible to identify causal relationship between intention and the hypothesized predictor variables from the TPB model.

Competing Interests

The authors have declared that no competing interests exist.

Acronyms and Abbreviations

ANC: Antenatal care
 BSc: Bachelor of Science
 HF: Health Facility
 ID: Institutional Delivery
 JU: Jimma University
 MEDHS: Ethiopian Mini Demographic and Health survey
 PBC: Perceived Behavioral control
 SNNPR: South Nations Nationalities and Peoples Region
 TBAs: Traditional Birth Attendants
 TRA /TPB: Theory of Reasoned Action/ Theory of Planned Behavior
 UNFPA: United Nations Population Fund Agency
 UNICEF: United Nations Children's Emergency Fund
 WHO: World Health Organization

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Availability of Data & Materials

The data for this research is available, so we can contact you when you need our data for future process.

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