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Male Partner Involvement in the Care and Support of Women during Antenatal Care and Delivery in Cameroon: the case of the Limbe Health District.

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ABSTRACT

Male partner involvement is associated with positive maternal and infant outcomes. This study aims at establishing a baseline on the level of male involvement, assess health personnels' perception and determine factors that influence male involvement.

Findings: 47.8%, 49.5% and 2.7% of the respondents had high, moderate and low level of male partner involvement respectively. Health care providers expressed challenges of lack of male friendly infrastructure and inadequate training tailored towards male involvement. Socio-cultural factors like Couple living together (OR=2.78; 95%CL1.31-5.87; P=0.008), planned pregnancy (OR=2.72; 95%CL1.53-4.82; P=0.001), partner involved in decision making on health facility to visit (OR=16.40; 95%CL2.21-121.72; P=0.006) significantly influenced level of involvement. Barriers included poor staff attitudes, restrictions of male access to the delivery room, boring and long waiting time.

Male partner involvement was not optimal and influenced by socio-demographic, cultural, health facility and health care providers' factors.

Key words: Male, Involvement, Antenatal care, Delivery, Healthcare provider, Partner.

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1. BACKGROUND

Men's' rule as partners, fathers and health care workers impact women's reproductive health directly or indirectly, biological or social. Male involvement has mostly been done by including men in the prevention of mother to child transmission (PMTCT) with lack of emphasis on the involvement of men in maternal health care (Singh et al 2014).

Developing countries account for 99% of global maternal deaths (WHO 2015) and the majority of these deaths are avoidable (Yargawa & Leonardi-Bee, 2015). The right to life is a fundamental human right and for women, human rights include access to services that will ensure safe pregnancy and delivery (WHO, 1999). In the developed regions for example, a woman's lifetime risk of dying from preventable or treatable complications of pregnancy and childbirth is 1 in 3800 compared to 1 in 39 in Sub-Saharan Africa(WHO 2015) (WHO, 2001).

With high level of maternal mortality persisting in developing countries, there is increasing interest in identifying ways through which women can access appropriate care to prevent deaths during pregnancy and delivery (Alva & ICF, 2012). The 1994 International Conference on Population and Development (ICPD) advocated for the active inclusion of men in reproductive health (Singh, et al 2014) (WHO 2002). Since then, there has been an increase in reproductive health initiatives that target both men and women in an attempt to fulfil the 5th Millennium Development Goal. Though the benefits of male involvement have been acknowledged, there continue to be a challenge in creating space for and engaging men in maternal health(Singh, *et al* 2014).Studies have reported positive benefits of male involvement in maternal health in developed and developing countries, which include increased maternal access to antenatal, delivery and postnatal services; (Redshaw & Jane Henderson, 2013) discouragement of unhealthy maternal practices such as smoking;(Martin, *et al* 2007) (Kiernan & Pickett, 2006), improved maternal mental health; (Lee,

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2001) increased likelihood of contraception usage; (Vouking, *et al* 2014) and alleviation of stress, pain and anxiety during delivery (D'ALIESIO,*et al* 2009).

In many developing countries, men are the key decision-makers and chief providers, often determining women's access to economic resources. This practice has implications for maternal health as it determines the nutritional status of women during pregnancy; (Dudgeon & Inhorn,M.C, 2004) access to maternal health services since out-of-pocket payments are required;(Gharoro et al 2000), (Bhalerao,1984) and chances of receiving emergency obstetrics care, which is vital in averting maternal mortality (Dudgeon,M &Inhorn 2004).

Cameroon is a patriarchal country thus men are to a large extend leaders and decision-makers at house hold and policy level. Women lack autonomy in reproductive health decision making, though pregnancy and child birth are largely seen as a circle of women (Sharma, 2003) (Ebba, 2010). They generally do not accompany their wives for antenatal care nor to the labour room (Fekede Asefa, 2014). Additionally, division of responsibilities is drawn on the basis of gender and this favours men, which eventually makes them dominant in decision making process at household level, while leaving women with little or no say in matters that affect their reproductive life (Ebba, 2010).

Cameroon, a Sub-Saharan African country has a maternal mortality rate of 529/100,000 live births,(WHO, 2015) and has made no significant progress in meeting its target of 180 in the reduction of maternal mortality in spite the presence of numerous programs and interventions carried out in the country that are aimed at reducing maternal mortality(WHO,2011, 2015).

Despite government efforts in reducing maternity costs, cesarean section fees from 100,000 francs ($168) to 40,000 francs ($67) and the provision of obstetric kits, valued at 20,000 francs ($34), to all pregnant women for just 6,000 francs ($10) to encourage women deliver in hospitals in a bit to reduce maternal and

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child mortality, it has not yielded significant results (Nofuru, 2015). There is therefore a need for new strategies to be implemented in curbing down maternal mortality.

According to USAID, 2010, the three main delays that affect access to maternal health care are: deciding to receive care, reaching the service delivery point and receiving care at the facility (USAID, 2010). Male partner involvement among other factors can significantly influence the first two delays. This approach is therefore a key factor that cannot be ignored in the quest for improvement in maternal health (DOE,2013) (WHO,2015). Advocating for men's involvement on reproductive health including care and support during pregnancy and child birth should not only be seen rhetoric in health policies but rather implemented, and this includes educating men on their reproductive responsibilities based on evidence (Ebba, 2010).

It was observed that most women who came for obstetric care were escorted by old women or some relative as opposed to men especially their partners. This trend was further backed by data collected from the South West Region program report at the delegation of Public Health, which indicated partner involvement at antenatal care /PMTCT in the region as 12.9% and in the Limbe district 331(8.7%). Data for male involvement during ANC visits and delivery were not captured.

Irrespective of the level of male involvement in the care and support of women during ANC and delivery, addressing the need for their involvement will not only give them the agency to assist their partners and be part of the process of pregnancy and delivery, but will also yield significant public health benefits on maternal and infant morbidity and mortality. Thus ultimately accelerating the attainment of the MDG 5.

The findings of this study will give the male perspective factors that determine their involvement in the care and support during ANC and delivery. These factors when taken into consideration will lead to planning appropriate programmes that will engender greater male involvement in maternity care. Based on this information, service providers can provide a more male friendly services and include them in their activities.

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It will also inform policy making in other districts and the country as a whole thus translating into greater utilisation of health services by women.

2. Methods

2.1. Study design and setting: This was a mixed community-based cross-sectional study using quantitative and qualitative techniques carried out in the Limbe health district among men, women and Healthcare personnel. The target population for the qualitative technique are men aged 18 to 55years and women aged 15-49years, who either had children aged 5years or below or pregnant and Healthcare personnel working in the maternity and antenatal clinic.. Homogenous focus group discussions were conducted to explore further cultural norms, perceptions of gender roles and male friendliness of health facilities, attitudes of peers, of health providers and the community at large to male involvement in the care and support of women during pregnancy and delivery. Men and women without children or who have never been pregnant and non-maternity and ANC health personnel were excluded in the study.

2.2. Sample Size Determination for the Survey

The sample size was calculated using the Cochran's formula (Naing,et al 2006),with a sample size of 384 which was adjusted by 10% (422) to make provision for nonresponse and promote generalization of findings. Sample size for Each Health Area was calculated and the proportion of the sample size represented by each health area corresponded to the proportion of the total population of the five health areas (N=151642).

Multi-stage sampling technique was used for the qualitative study and the questionnaire offered were designed making reference to questionnaires used by other researchers. Data was collected using interviewer administered structured questionnaire with interviewers initial and code on each to facilitate cross checking to ascertain complete and correct filling. Filled questionnaires were locked up in a cupboard at the study site

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and information entered into epi info version 7 in a pass word protected computer. Data was analyzed using the Statistical Package for the Social Sciences (SPSS), version 20.0.

For the Qualitative Design, a purposive sampling approach was employed in the various health areas with the help of community health agents who identified participants that met the inclusion criteria of the study. Social science researchers refer to this kind of participants as 'information rich cases' which can generate meaningful data that can be used to adequately answer the research questions (Patton, 1990).This approach also ensures that the study captures a full range of responses from study participants to achieve the aim and objectives of the research (Mason, 2002). Demographic information of the participants were obtained and each participant given a code for identification during the discussion. The sessions were tape recorded and notes taken so that non- verbal behaviours could be noted down to help during interpretation and analysis. The discussions were conducted at a convenient place provided by the hospital and agreed upon by all participants. Each discussion session lasted from 45 to 60 minutes. The tapes of the FGD were kept in a locked cupboard to ensure confidentiality.

The audio recordings of the focus group discussions were played back to ensure completion. The tapes were labelled with the group name and date. Transcription of the recorded discussions was done as soon as possible after the discussion.

The analysis of the qualitative data adopted the inductive and thematic framework approach based on the derivation of thematic codes, patterns and analytic categories as they emerge from the data (JAN & JAN ELEWI S, 2003) .The audiotapes from the FGDs were replayed and transcribed by a social scientist together with the hand-written notes and the different responses to the questions were examined and coded. Data from FGDs was double-entered into the computer and analyzed for content analysis with Text-based Beta. Appropriate quotes were also included to clarify the themes.

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2.3. VARIABLES MEASURED

a) Male involvement

Male involvement was measured using the following 5 and 4 points in antenatal care, labour and delivery respectively.

2.3.1. For ANC

1) The man accompany partner to health facility

2) The man discusses maternal health issues with partner

3) The man involved and jointly plans on where partner should go for healthcare

4) The man provides financial and physical support to his partner

5) The man is involved in planning for emergency in ANC, labour and delivery

2.3.2. LABOUR AND DELIVERY

1) The man made any joint prior plans during labour and delivery of partner
2) The man discussed health issues related to the labour and delivery with partner
3) The man provided financial and physical support to the partner during labour and delivery
4) The man accompanied the partner to the health facility at the time of labour and delivery

The right response to each question pertaining to the male partner involvement during ANC and labour and delivery was allotted a score of one (1) and zero (0) when the activity was not performed. A total score was computed for each participant and the level of involvement was categorised as high, moderate or low. A score of 4-5 for ANC and 4 for labour and delivery was considered as a high level of involvement, a score of 2-3 was considered as a moderate level of involvement and a score of 0 - 1 was considered as a low level of involvement (DOE, R. 2013)

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An overall level of male partner involvement in the care and support of their partner during antenatal care and delivery was therefore assessed by combining their scores for the two aspects of maternity care. For the overall score, a score of 8-9 was considered high level of involvement, a score of 4– 7 was considered moderate level of involvement and a score of 0 -3 was considered low level of involvement.

3. RESUITS

From the 422 respondents approached to participate in the cross sectional survey, four hundred and twelve (412) questionnaires were complete for analysis giving a 97.6% response rate. The ages of the respondents ranged from 21 to 55 years with a mean age of 35.69±7.34 years. The predominant group was the 30-40 years age group with 229 (55.6%) participants.

Majority [273 (66.3%)] of the participants were married. The average number of children per participant was 3 with a range of 1 to 5 and three hundred and eighty five (93.4%) of the participants were Christians. Majority [190 (46.1%)] of the participants had attended secondary education and 145 (35.2%) participants were employed (Table 1).

3.1. Table 1 Socio-demographic characteristics of study participants (N=412).

Characteristic		Frequency (No)	Percentage (%)
Age group	Mean±SD	35.69±7.34	
	< 30 years	90	21.8
	30-40 years	229	55.6
	>40 years	93	22.6
Marital status	Cohabitating	123	29.8
	Married	273	66.3
	Single	16	3.9
Number of wives	None	16	3.9
	One	381	92.5
	Two and more	15	3.6

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Religion	Christianity	385	93.4
	Muslim	22	5.3
	Pagan	5	1.2
Level of education	No formal schooling	6	1.5
	Primary	116	28.2
	Secondary	190	46.1
	Tertiary	100	24.3
Occupation	Business	138	33.5
	Employed	145	35.2
	Farming	32	7.8
	Self-employed	97	23.5
Age of last child	Mean±SD	27.96±18.83	
	1-12 months	143	34.7
	13-24 months	90	21.8
	25-36 months	58	14.1
	37-48 months	67	16.3
	49-60 months	52	12.6
Number of children	Average	3	
	One	128	31.1
	Two	92	22.3
	Three	92	22.3
	Four	54	13.1
	Five and more	46	11.2

SD; standard deviation

3.2. Level of Male Partner Involvement in the Care and Support of Women during Antenatal Care and Delivery.

a) Male Involvement in Antenatal care with regards to number of children

Majority [382(92.7%)] of the men were involved in the decision on where to attend ANC**.** Men who had more than one child 270 (95.1%) were significantly involved: 112(87.5%) (P=0.006). Those with a single child 63(49.2) were more involved to accompany their partner for ANC visit compared to those with more

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than one child 134(47.2%) but this was not statistically significant (P=0.702). Discussion of health issues related to pregnancy was high [91(32.0%)] amongst those with more than those with one child (Table 2).

Table 2: Comparison of Male Involvement at ANC with number of children amongst study participants (N=412).

Activity	Response	Single child n=128 No (%)	More than one child n=284 No (%)	Total No (%)	Statistic
The man is involved in decision on where to attend ANC	Yes	112(87.5)	270(95.1)	382(92.7)	χ^2=7.490 p=0.006
The man jointly plans for emergency during pregnancy	Yes	103(80.5)	242(85.2)	345(83.7)	χ^2=1.457 p=0.227
The man accompanies partner to HF during ANC visits	Yes	63(49.2)	134(47.2)	197(47.8)	χ^2=0.147 p=0.702
The man provides financial and physical Supported to partner during pregnancy	Yes	126(98.4)	284(100.0)	410(99.5)	χ^2=4.459 p=0.096 *
The man discusses health issues related to pregnancy with partner.	Yes	34(26.6)	91(32.0)	125(30.3)	χ^2=1.254 p=0.263

b) Male Involvement in labour and delivery with regards to number of children

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A total of (91%) were involved in making joint prior plans during labour and delivery with a significant difference between those with a single child (86.7%) and those with more than one child 264 (93%) (P=0.040). Discussing health issues relating to labour and delivery with partner was significantly high amongst participants with more than one child 200 (70.4%) (P=0.012). Involvement in accompanying partners to the health facility during labour and delivery was significantly high amongst those with more than one child 184 (65.7%) (p=0.000) (Table 3).

Table 3: Comparison of Male partner involvement in labour and delivery with number of children amongst study participants (N=412)

Involvement	Response	Single child n=128 No (%)	More than one child n=284 No (%)	Total No (%)	Statistic
Made any joint prior plans during labour and delivery	Yes	111(86.7)	264(93.0)	375(91.0)	χ^2=4.202 p=0.040
Discussed health issues related to the labour and delivery with partner	Yes	74(57.8)	200(70.4)	274(66.5)	χ^2=6.298 p=0.012
Supported partner during labour and delivery	Yes	126(98.4)	282(99.3)	408(99.0)	χ^2=0.676 p=0.411
Accompanied partner to the health facility at the time of labour and delivery	Yes	58(46.0)	184(65.7)	242(59.6)	χ^2=13.982 p=0.000

3.3. Level of male partner involvement in ANC and delivery

The highest level of male partner involvement was observed in antenatal care, 219 (53.2%). However, during labour and delivery,218(52.9%) of the male partners were moderately involved (Table 4).

Table 4: Level of male partner involvement in ANC, labour and delivery

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Period of Care	Level of Male Involvement (n=412)		
	High	Moderate	Low
	No (%)	No (%)	No (%)
Antenatal care	219(53.2)	189(45.9)	4(1.0)
Labour & delivery	175(42.5)	218(52.9)	19(4.6)

3.4. Overall level of male partner involvement in ANC and delivery.

Putting the level of involvement in the two aspects of maternity care together, a total score was obtained and the overall level of involvement in maternity care was follows: 197(47.8%) had high level of involvement;204(49.5%) had moderate level of involvement and 11(2.7%) had low level of male involvement (Figure 1).

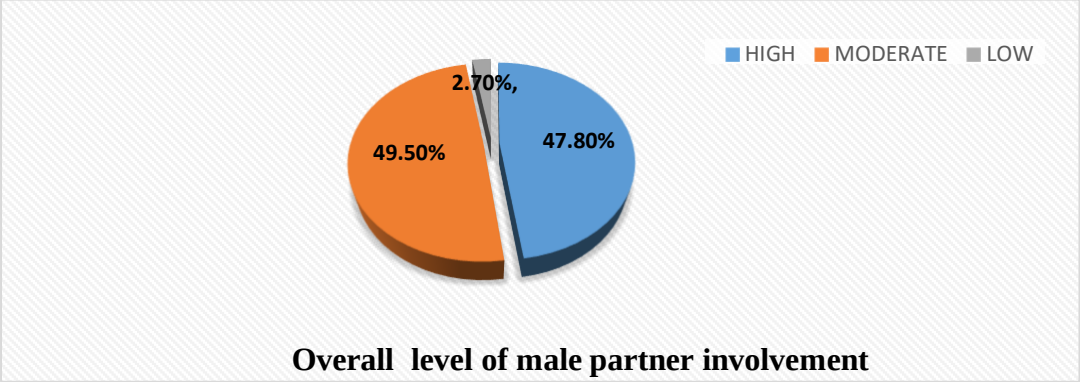

Figure 1: Overall level of male involvement in ANC, labour and delivery

3.5. The perception of health personnels towards male involvement in the care and support of women during ANC, labour and delivery.

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The health personnels working in the ANC clinic and maternity felt it was a good idea to have the men involved in ANC and delivery as was expressed during the focus group discussion. With regards to the role the man has to play they had this to say:

The wife feels loved when the husband is involved with the pregnancy like buying her drugs and following her for ANC and during labour and delivery-40year old male midwife.

In the case of promptness in handling emergency situation that arise during labour and delivery, the health care providers said:

Delay in intervention that leads either to maternal or child mortality or morbidity will be reduced if the man is present in cases of emergency. The man must be present to assist quickly if the need arises-40year old midwife.

As concerns involving men in ANC and delivery the providers commended it but said: *The involvement of men is good though it will really be challenging but it also gives us an opportunity to initiate family planning and for the man to get the information first hand*-42year old midwife.

All the nurses said concerning male involvement that: *It is a good innovation because we have always known about involving men in PMTCT. In this case, husbands will be more supportive*. Looking from the past experiences of the providers on ways to encourage male involvement they had this to confess: *For now we don't really have any system put in place to encourage men to come along with their spouses but for those who come with their husband, they are appreciated openly and attended to first, as an encourage for them to come again and also to get other women to come with their husbands*-40 year old Midwife.

Concerning male friendly infrastructure the providers in the labour and delivery room had this to say: *The government should create infrastructure that is male friendly especially during labour and delivery so that*

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the couple can be in their own cubicle without the interference of another woman in labour or delivery-32year old midwife.

3.6. Socio-demographic factors associated with level of male involvement in ANC and delivery. A significant association was found between the level of male involvement and marital status, number of wives and the number of children. Participants who were married had the highest proportion of participants with high male involvement 104(38.1%) (P=0.000).

The men in the focus group discussion had this to say:

When you are married to a woman, she becomes part of you and you feel you have an obligation towards her and during the period of pregnancy and delivery you have to show her the maximum care because you value her-48 year old Teacher(male discussion group)

Those with one wife had a significantly high proportion of male partner involvement 133 (34.9%) (P=0.000). Respondents with two or more children had a significantly high proportion of involvement 105(37.0%) (P= 0.006) (Table 5).

Table 5: Socio-demographic factors associated with level of male involvement in ANC and delivery. (Pearson Chi Square test) (N=412)

Variable		Overall male involvement			Chi square	p-value
		Low	Moderate	High		
Age group	< 30 years	6(6.7)	55(61.1)	29(32.2)	7.734	0.102
	30-40 years	6(2.6)	143(62.4)	80(34.9)		
	>40 years	0(0.0)	63(67.7)	30(32.3)		
Marital status	Cohabitating	3(2.4)	87(70.7)	123(26.8)	34.928	0.000
	Married	5(1.8)	164(60.1)	104(38.1)		
	Single	4(25.0)	10(62.5)	2(12.5)		
Numberof	None	4(25.0)	9(56.2)	3(18.8)	30.951	0.000

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wives						
	One	8(2.1)	240(63.0)	133(34.9)		
	Two and more	0(0.0)	12(80.0)	3(20.0)		
Religion	Christianity	11(2.9)	241(62.6)	133(34.5)	3.561	0.469
	Muslim	1(4.5)	15(68.2)	6(27.3)		
	Pagan	0(0.0)	5(0100.0)	0(0.0)		
Level of education	No formal schooling	0(0.0)	5(83.3)	1(16.7)	6.465	0.373
	Primary	1(0.9)	80(69.0)	35(30.2)		
	Secondary	8(4.2)	111(58.4)	71(37.4)		
	Tertiary	3(3.0)	65(65.0)	32(32.0)		
Occupation	Business	3(2.2)	88(63.8)	47(34.1)	0.907	0.989
	Employed	4(2.8)	91(62.8)	50(34.5)		
	Farming	1(3.1)	20(62.5)	11(34.4)		
	Self-employed	4(4.1)	62(63.9)	31(32.0)		
Number of children	One	8(6.2)	86(67.2)	34(26.6)	10.366	0.006
	Two and more	4(1.4)	175(61.6)	105(37.0)		

3.7. Socio-cultural factors influencing male partner involvement in the care and support of women during ANC and delivery.

The level of involvement among couple living together was 2-3times significantly higher compared to those not living together (OR 2.78; 95%1.31-5.87; P=0.008). Those with planned pregnancy were 2-3times significantly involved than those with unplanned pregnancy (OR 2.72; 95%CL1.53-4.82; P=0.001). Based on this the men said;

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When your wife gets up one day and tells you she is pregnant when you were not expecting it, you feel she has just tricked you into it especially if you did not want any child at that time. When it happens like that you just realize you are not able to give her the attention she needs during the period of the pregnancy and delivery-45year old civil servant (male discussion group).

Men involved in decision making on place of antenatal care were about 16 times significantly involved compared to those not involved in the decision on place of antenatal care (OR 16.40; 95%CL2.21-121.72;P=0.006). Participants who did not desire to be present in the delivery room had a significant level of involvement compared to those who desired to be present (OR 0.56; 95%CL0.34-0.92; P=0.022) (Table 6).

Table 6: Socio-cultural factors influencing male partner involvement in ANC and delivery

Socio-cultural factor	High overall male involvement	Odds Ratio	95% CI	p-value
Couple not lived together*	9(17.0)	1.00	-	-
Couple lived together	130(36.2)	2.78	1.31-5.87	0.008
Couple lived with other family members*	43(33.6)	1.00	-	-
Couple not lived with other family members	96(33.8)	1.01	0.65-1.57	0.967
Pregnancy unplanned*	17(18.5)	1.00	-	-
Pregnancy planned	122(38.1)	2.72	1.53-4.82	0.001
Man not involved in decision making on place of antenatal care*	1(3.3)	1.00	-	-
Man involved in decision making on place of antenatal care	138(36.1)	16.40	2.21-121.72	0.006

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Man desired to be present in the delivery room*	55(33.3)	1.00	-	-
Man did not desire to be present in the delivery room	33(21.7)	0.56	0.34-0.92	0.022

3.8. Cultural beliefs or factors that influence male involvement in labour and delivery.

These included fear(16.8%),women's privacy (14.6%), Financial constraints (4.6%),no love for wife(4.1%), The presence of an unfaithful spouse during labour can or might lead to the wife's death (3.4%), Their Peers call them names like 'woman wrapper'(2.9%) and unplanned pregnancy(1.2%). Concerning cultural beliefs the women said: *Some men don't enter the delivery room because they are afraid to see their women in pains. Also when a man has had sex with another woman and he enters the delivery room it might affect the woman negatively and hinder the process of labour and delivery*-36 year old Nigeria Trader(female discussion group). Of the 242 participants who accompanied their partners for ANC, 70(58.8) (P=0.140) who accompanied more than two times said it was too long. The women lamented on this: *When the men stay too long they are not happy and will not like to come again*-31year old Housewife (female discussion group)(Table 7).

Table 7: Health facility factors and its influence on the frequency of male partner visits.

Factor	Proportion making visit (%)		Statistic
	Once	≥ 2 times	
Staff attitude			
Friendly	53(40.5)	78(59.5)	χ^2=2.251

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	Rude	21(53.8)	18(46.2)	p=0.325
	Unfriendly	12(46.2)	14(53.8)	
Time spent per visit				
	Boring	14(63.6)	8(36.4)	χ^2=3.935
	Reasonable	23(41.8)	32(58.2)	p=0.140
	Too long	49(41.2)	70(58.8)	

4. DISCUSSION

This study had a 97.6% response rate which is sufficient and representative, and conforms to Mugenda *et al; 2003* stipulation that a response rate of 50% is adequate for analysis and reporting, while above 70% response rate is considered excellent. Marital status, age group, number of children and educational level of respondents were independent socio-demographic variables that were found to affect the different aspects of male partner involvement in the care and support of women during ANC and delivery. There were 83.2% of the respondents who had some basic knowledge on antenatal care. This knowledge was not reflected in the 47.8% of respondents who accompanied their partners for ANC. This disparity was consistent with other findings in Cameroon in which most of the men considered accompanying their partners for ANC a good practice yet fewer men actually did so (Nsagha et al 2014), (Nkuoh et al 2010).In another study in Botswana, 82.1% of men had already heard of the program but participation was low Similar findings were reported in Dar es Salaam and Mbeya in Tanzania (Akarro et al 2011) (Stefanie et al 2009). Therefore, the general trend indicates that low male accompaniment could not have been because they did not have some basic ideas about ANC services but for other reasons.which included, being busy at work, not living with their partner in the same town, not being invited. Some did not see the importance for them to accompany their partners either to ANC and delivery and that the women were strong and mature enough to go on their

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own as their own responsibility. These findings were similar to Studies carried out in rural Guatemala, Eastern Uganda, Kenya and Urban-West, Zanzibar where the non-availability of men during maternity care was often job-related, women seen as mature and strong and privacy reasons (Byamugisha et al., 2011) (Carter M. , 2002) (Hamad, 2015)(Kiptoo *et al* 2016). These were also mentioned by Nkuoh *et al; (*2010). Reece *et al(2010)* also found out that men's perception in attending antenatal clinic activities was seen as 'unmanly'. This explains how pregnancy and childbirth is viewed as women responsibility and mostly seen as women's issue.

Accompaniment of male partner in this study during ANC and delivery was 47.8% and 58.7% respectively. This findings were higher than that of a study conducted in Uganda where 42.9% of the women had been accompanied by their husbands to the antenatal clinic and 43.4 % to the labour ward (Nkuoh et al 2010). Byamugisha *et al; 2011* and Mullany 2006 also had lower findings of 5% and 40% of men who accompanied their partners for ANC respectively. Some of the challenges faced during their visit in the facility included; long waiting time and uninvolved and boring period, and were seen to affect male involvement as concurred by Tweheyo *et al*;(2010), with similar findings reported in Eastern Uganda and Urban west Zanzibar (Byamugisha et al 2010)(Hamad, 2015).

The proportion of men involved in the care of their partners during ANC and delivery were 61.9% and 28.1% respectively. The high proportion during antenatal care was likely due to the HIV counseling and testing and other laboratory tests that are done mostly during the first antenatal care visit with the partner. The low proportion of male involvement during delivery was largely due to the fact that most of the health facilities do not allow male partners into the delivery rooms. 52.1% of the men desired to be present and about half of the respondents 49.0% felt that if only one person should be allowed into the delivery room, it should be the male partner. Similar findings were reported in Nepal by Mullany (2006) where about half of the couples preferred to have the husband present during labour if given the option. Lewis *et al; (2015)* in

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their study had the same findings where Considerable interest for the involvement of husbands was also expressed by both expectant mothers and fathers.

In cases where there is need for referral in emergency situations, the availability of the male partner will greatly facilitate such transfers. This is because in our local setting, relatives are often left with laboring women thus called upon to help in the arrangement of transport and other logistics in emergency situations. Kakaire *et al;* (2011) affirm a similar situation in their study in Uganda and found delays occurring during referrals to include unavailability of transport, failure to meet transport cost and the absence of someone to accompany the referred patient (Kakaire,et al 2011). Therefore the presence of the male partner leads to early intervention in case of emergency, addresses the three main delays that affects access to maternal health and reducing maternal morbidity and mortality.

Healthcare providers and women in this study as well as the women in a study by Mullany B C, (2006) mentioned lack of space and privacy in the labour ward as another deterrent to male involvement. Here they lamented that most at times there are more than two women in the delivery room and makes it challenging for partners to be allowed in as the privacy of the woman is of utmost importance. Reece *et al;(2010)* in a similar study found that making health facilities more male-oriented increases male involvement.A study in Eastern Uganda also had similar findings (Byamugisha, 2010).

The overall male involvement in the care and support of women during ANC and delivery in this study was seen to be moderate at 49.50%. This finding was similar to a study carried out by Dansowaa in Ghana who had a moderate level of male involvement in maternity care (DOE,2013), but differs with the findings of Byamugisha *et al*;(2011) in Mbale district, Uganda, with 26.0% of participants with high male involvement and 74.0% with low male involvement.

The providers' perceptions were mixed. This was seen as they expressed that male involvement was good but challenging due to no former training on how to handle this category of clients. This was similar to what Nsagha *et al;* (2014) reported in their study noting that it was important for healthcare providers to have and

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give the right information for maximum positive outcome. A study conducted in Northern Uganda found out that empowering male partners with knowledge about ANC services may increase their ANC participation and in turn increase skilled delivery (Reece et al 2010). This was further concurred by Mullany *et al;* (2006) and Kakaire et al (2011). A similar study in South Africa found providers' hesitance to male partner involvement in maternity care but later saw that it was worth involving the men to enable them obtain the right information that will better the care of their partners (Lewis et al 2015).

Factors that influence male partner involvement in the care and support of women during ANC and delivery include Socio-demographic, socio-cultural and health facility factors. High level involvement was found among age group 30-40 years. It is assumed that this is the age when men start wanting to be more responsible and settled in their homes with a wife. . Byamugisha *et al;(2011)* did not find any significant association with age and male involvement. Significantly high level of involvement was found among married respondents. A study in Northern Uganda found that men who were formally married were more likely to attend antenatal clinic with their partners compared with those who were not formally married (Reece, et al 2010). It was also found that high level of involvement was highly associated to those who had just one wife. A group study conducted in Kinshasa found that monogamous partners and co-habiting men were twice and 1.6 times respectively more likely to be involved (National Institutes of Health, 2014). In contrast, Nkuoh *et al; (*2010) reported that Cameroonian men in polygamous relationships showed higher involvement.

This study found couple living together to be 2- 3 times statistically significantly and more likely to be involved than those living separately. A husband living together with the wife will together influence the decision on where to seek antenatal care (ANC). This concurs with a study done on birth preparedness in Uganda (Kakaire et al 2011). It could also be attributed to the fact that since they are staying together the man can remind or escort the wife to the ANC clinic as concurred by a study in Cape Town (Campbell & Graham, W. J., 2006). Men who were involved in the decision on the health facility their partners should

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attend were 16 times more involved than those who were not. This indicates that there was adequate communication among these couples as concurred by studies in Western Kenya and Sub Saharan Africa (UNFPA, 2004) (National Institutes of Health, 2014). It was also seen that participants who did not wish to be present in the delivery room were significantly involved. From this it can be seen that male involvement is a composite measure and therefore involves more than one Variable.

Fear, women's privacy, financial constraints, no love for wife, the presence of an unfaithful spouse during labour might lead to the wife's death, names like 'woman wrapper' and unplanned pregnancy were some of the cultural beliefs and factors observed in this study that influence male partner involvement. The women in the FGD said most men fear to see their partners in pains reasons why they refuse entering the delivery room. They also explained that they are some cultures where the presence of an unfaithful spouse in the delivery room places the partner's life at risk. A study carried in sub Saharan African had other findings where the men said they cannot stand the naked sight of their wives in the presence of other people. They further said those who followed their wives were laughed at and looked upon as weaklings (Ditekemena, et al., 2012). This finding was concurred by findings in Kenya and Accra which believed that men become impotent when they see blood (Nofuru, 2015) (Hamad, 2015). The men in the FGD said masculinity was an aspect that affect male involvement because from the way they have been brought up accompanying a woman for ANC or delivery is to be done by another woman. Therefore gender norms affects male partner involvement in ANC and delivery. The women in the FGD said male partner involvement is hindered by the fact that healthcare providers s demand extra charges when they see them. These finding were similar with studies conducted in Kenya and Gambia where some men felt it was their responsibility to escort women to clinics and offer physical support when needed, but this was deterred their responsibility as providers of families and the type of work they do(Hamad, 2015) (Brittain et al 2015).

Health facility factors included staff attitude and time spent in the facility. The women said when a man sees the way his wife is being maltreated in pains, he prefers not to be there during delivery but rather come

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when the partner has delivered. The above finding concurs with the previous studies where Byamugisha *et al*; (2011) reported that harsh language directed at Ugandan women from skilled health professionals was a barrier to male participation. Harsh treatment of men by health providers discouraged them from returning or participating in antenatal activities. It was also seen that though not all nurse are rude, there was a need for them to receive some lessons on customer service which was collectively expressed in the male FGD.

5. LIMITATIONS OF THE STUDY

This study included only men who had their last child aged 5 years ago or less in order to minimise recall bias, but there was no way of ensuring accuracy of the recall of activities surrounding their partners' last birth. Participants were assured of confidentiality and encouraged to give honest responses but there is still the possibility of some participants giving socially desirable responses.

6. CONCLUSION

The level of male partner involvement in the care and support of women during ANC and delivery in the Limbe health district was moderate at 49.50% involvement. Male involvement is influenced by varied factors which may relate to the man (socio-demographic factors), the community (socio-cultural factors) and the health facility and health care provider's factor. There is need for concerted effort from all these stakeholders if success will be achieved in improving male partner involvement in the care and support during ANC and delivery.

The health care delivery system is best placed to spearhead this effort by providing facilities with infrastructure designed to accommodate and accept men to participate in this care. Behaviour change among health care providers to friendlier attitudes will advance male involvement.

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