ORIGINAL PAPER

Determinants of Adherence to the Exclusive Breastfeeding Option among HIV Positive Mothers in Eight Selected Health Centres in Lusaka District

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ABSTRACT

Background: Exclusive breastfeeding practice in high prevalence settings remains a challenge because of likelihood of HIV transmission through breast milk. Understanding determinants influencing adherence to exclusive breastfeeding in Zambia is also a challenge. We investigated determinants of adherence to exclusive breastfeeding among HIV infected mothers aged 18 to 49 years with children aged 0 to 12 months in eight selected health centres in Lusaka district.

Methods: A cross-sectional survey among 400 respondents was conducted in selected health centres using probability proportional to size stratified random sampling. Multivariate logistic regression results were stratified by age and educational level. Focus Group Discussions with 44 respondents and In-depth Interviews with eight nurses were also conducted. Framework analysis (Ritchie and Spencer 1994) was used for qualitative data analysis.

Results: Overall, most mothers (74.0%, n=296, CI: 0.69, 0.78) adhered to exclusive breastfeeding. Multivariate results showed that being married (AOR, 2.88; 95% CI 1.45, 5.71) and having not suffered from breast conditions (AOR, 5.34; 95% CI 2.08, 13.7) determined adherence irrespective of age and educational level. Those of incomes less than $125 were more likely to report adherence (AOR 2.44; 95% CI 1.76, 11.0) than those of above $125 despite secondary education status. Focus Group Discussions and In-depth Interviews' results complemented these findings. Women who received nutrition education (n=17) and understood that mixed feeding facilitated Mother-To-Child-Transmission (MTCT) of HIV (n=10) reported adherence. In-depth Interview results revealed that mothers who understood benefits and risks of breastfeeding through counselling also adhered to exclusive breastfeeding. Both women and nurses reported that non-availability of resources to sustain Exclusive Replacement Feeding for first six months determined adherence.

Conclusion: High adherence among married respondents irrespective of age suggests a role for social support in determining adherence. Higher odds of adherence among those without breast related conditions regardless of educational level and with incomes below $125, suggests importance of understanding that reduced risk of MTCT of HIV in the absence of breast related conditions and inadequate finances to sustain exclusive replacement feeding with formula could have determined adherence.

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INTRODUCTION

HIV epidemic is one of the major health burdens with a prevalence of 14.3% in Zambia [4]. More than 90% of HIV transmission is estimated to be through Mother-To-Child-Transmission [18]. In HIV context,

Zambia recommends exclusive breastfeeding for first six months of life unless replacement feeding is Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS) for them and their infants before that time [14]. Despite lower risk of MTCT of HIV through exclusive breastfeeding (WHO, 2010), infected mothers may not breastfeed exclusively especially if infants are HIV negative. The UTH has reported high incidence of severely malnourished case of admissions among HIV infected children and were highest in 0 to 12 months age group [15]. If they breastfed exclusively, malnutrition would be less severe because breast milk is protective [24].

Understanding determinants of adherence among HIV positive mothers remains a challenge due to inadequate information systems. Existing systems have limited exclusive breastfeeding indicators and focus e.g. the Zambia Demographic and Health Survey which is conducted every four to five years, limits exclusive breastfeeding indicators to the general population and not to the HIV infected (CSO 2001/2 and 2009). With reiteration by the World Health Organisation on exclusive breastfeeding among HIV infected women as a public health recommendation for virtual elimination of MTCT of HIV and child survival in resource poor settings in the light of Highly Active Anti-retroviral Therapy (HAART), compared to other feeding practices [23], there was urgent need to understand its determinants for effective promotion of exclusive breastfeeding.

We investigated determinants of adherence to exclusive breastfeeding among HIV positive mothers aged 18 to 49 years with infants 0 to 12 months in selected communities in Lusaka.

METHODS

Population and sampling procedures

The study was conducted in Lusaka district with an estimated population of 3,100,000 [25]. There are 24 health centres in the district and all of them offer Prevention of Mother-To-Child-Transmission services including Infant and Young Child Feeding (IYCF) counselling in HIV context. By September 2008, 1287 pregnant women tested HIV positive [10]. The study population included 1287 HIV infected women aged 18 to 49 years with infants aged 0 to 12 months who were receiving antenatal services from the 24 health centres. The target population included HIV infected women aged 18 to 49 years with infants aged 0 to 12 months who were receiving antenatal services from the eight selected health centres. A multistage sampling method was employed. First, health centres were stratified into high and medium density for the purpose of improving the overall variance estimates [8]. Sample size was determined using the formula: $n1 = z^2 pq/d^2$; $n2 = n1 (N/N + n 1)$; $n3 = Bn2$ and $n= n3 / r1$ [5]. Z was desired confidence interval of 95%, while P was estimate of the proportion of the population with the characteristic of interest which, was 35% from literature review, but proportion of 50% was used for provision of maximum variability. Q was 1-P and d was the margin of error. N was the number of pregnant women who tested HIV positive while B was the design inflation factor of four. Data was collected from 400 respondents aged 18 to 49 years with infants aged 0 to 12 months in eight selected health centres.

For qualitative data, 44 respondents were included in Focus Group Discussions and eight nurses in In-depth Interviews. Participants included in the Focus Group Discussions and In-depth interviews were a purposive and not representative sample, specifically selected based on the concept of applicability in which they were believed to possess knowledge of the study area [3]. They were, therefore, selected based on the criteria that they would have something to say on the topic, were within the age-range, had similar socio-characteristics and would be comfortable talking to the interviewer and each other [19]. With lottery method, five out of 14 were selected from high density centres and three from 10 medium ones. We combined stratified sampling and simple random sampling of health centres and study elements for the purpose of achieving a rich variety of probabilistic sampling methods [21]. The selection of five from the 14 high density and three from the medium density health centres was done based on the homogeneity of the study elements. It was, therefore, believed that results would provide less variability within groups than that of the whole population [21]. Probability proportion to size was used to select respondents and gave 85 for Kanyama as highest and Mtendere as lowest with 26. Probability proportion to size was used to select study elements due to variation in the target population sizes of the selected health centres [22].

Data collection and analysis

Interview technique was employed in quantitative data collection with use of a questionnaire. Information on level of adherence, socio-demographic; cultural; service and maternal factors was collected. Similar information was collected using a questionnaire guide during Focus Group Discussions and In-depth Interviews. Statistical Package for Social Sciences (SPSS) version 15.0 was used to analyse quantitative data. Chi-square test was used to derive associations between outcome and exposure variables. Multiple logistic regression was used to determine determinants of adherence. Confidence intervals for single proportions were derived using the OpenEpi version 2.3.1 [6]. Exclusive breastfeeding was estimated by combining responses on time of introduction of liquid and solid feeds. Any no response on either liquid or solid feeds before six months of age was coded exclusive breastfeeding. In terms of coding for the outcome variable, 1 was used for the presence of the desired outcome, which was the Yes response for adherence to exclusive breastfeeding option and 0 was used for the absence of the desired outcome, which was the No response for non adherence to exclusive breastfeeding option [11]. The model diagnostics were done using Omnibus tests of coefficients and hosmer and lameshow goodness-of-fit [17]. Variables in the model were total exclusive breastfeeding with mother's age, marital status, income levels, counselling status, status disclosure, experienced stigma, breast condition and time of breastfeeding initiation. The following variables, marital status, breast conditions, income levels and counselling, were stratified by age and educational level. Framework Analysis was used to analyse qualitative data [20]. P-values less than 0.05 were considered statistically significant.

Ethics

Ethical clearance and permission to collect data was obtained from the University of Zambia Research Ethics Committee and Ministry of Health respectively. Written, informed consent from each participant was obtained. Purpose and benefits of the study were explained to participants. They were further informed about voluntary participation and right to withdraw from the study anytime without affecting their treatment.

RESULTS

Participation and distribution

Overall, five high density and three medium centres were selected out of 24. The highest number was from Kanyama (n=85) and the least (n=26) from Mtendere. The rest were Chawama (n=82); Chelstone (n=30); Chipata (n=60); George (n=41); Kabwata (n=33); Railway (n=43). The mean age of those who participated was 27.9 with standard deviation of 5.307 and 3.78 months with a standard deviation of 3.358 for the infants.

Prevalence of Adherence to exclusive breastfeeding

Overall, prevalence of adherence was 74.0% (n=296, CI: 0.69, 0.78). Of those who adhered, more were married (88.2%, n=261, CI: 0.84, 0.91), while a few were single. Of the same respondents, most of their infants were aged less than six months (76.4%, n=226, CI: 0.71, 0.80) (Table 2.0). However, there were marked differentials regarding timing of liquid and solid feed introduction. Majority of infants less than five months were introduced to other feeds by five months while most of those aged above six months were introduced by six months (Figures 1 and 2).

Determinants

Significant variables derived using Chi-square test from socio-demographic; service; cultural and maternal factors (P-values <0.05) were used as predictors of exclusive breastfeeding. Variables on mother's age, mother's income level and receipt of counsel on feeding in HIV context were also used as they were deemed important.

Socio-demographic characteristics: Overall, being married was found to be a determinant of adherence (84.3%; AOR 2.88; 95%CI; 1.45, 5.71) (Table 3.0) irrespective of age and educational level. Low incomes and receipt of counsel were also significantly associated with adherence (Table 4.0). Married mothers aged 18 to 29 were more likely to report adherence (AOR 3.28; 95% CI; 1.44, 7.45) than those in the older age group (AOR 2.77; 95% CI; 1.03, 7.41). This was similar for those of incomes below $125 aged 30 to 44 years than of

incomes above $125 (AOR 2.71; 95% CI; 1.20, 6.15). Qualitatively, socio-economic factor was cited by both groups as a determinant in relation to non-availability of resources to sustain exclusive breastfeeding for first six months, for mother (n=10) and nurses (n=4). Below is an excerpt: '...it's a risk, it's not 100%, that's why those who have money these days they don't breastfeed their children' [Mother of 1 from Kabwata health centre].

Maternal factors: Regarding maternal factors, married women aged between 30 to 44 years who did not suffer from any breast related conditions were more likely to report adherence than those who suffered from breast related conditions (AOR 6.28; 95% CI; 1.74, 22.6) (Table 4.0). Results also showed that married mothers in the same age category with secondary and/or beyond educational level were more likely to report adherence than single mothers with same educational level and age group (AOR 4.41; 95% CI; 1.76,11.0). Results showed that mothers in the older age category (30 to 44 years) of incomes less than $125 were also more likely to report adherence than single mothers with same educational level but with incomes above $125 (AOR 2.44; 95% CI 1.14, 5.23). Results were also similar for married mothers with primary and lower educational level who did not suffer from breast related conditions than those of same education level and suffered breast related conditions (AOR 5.64; 95% CI; 1.48, 21.5). Mothers with secondary and/or beyond educational level with no breast related condition were more times high to report EBF than those of same education level with breast related condition (AOR 3.72; 0.048; 95% CI; 1.01, 13.6).

Service characteristics: Multiple logistic regression did not find service related characteristics to be a significant determinant of adherence (86.0%; AOR 1.50; 95% CI 0.71, 3.20). Further stratification with age and educational level found similar results. Table 4.0 illustrates the findings. However, service factors emerged as important determinants during Focus Group Discussion and In-depth Interviews. During Focus Group Discussions, nutrition education on feeding in HIV context was mentioned by most respondents as a determinant (n=17). They also explained that counselling made them understand that mixed feeding before six months, facilitates MTCT of HIV (n=10). Below is an excerpt: '...because when she is fed while breastfeeding, the lining can be scratched and the child can get the infection' [Mothers from all health centres]. It was also mentioned that support when encountering breastfeeding problems, also determined adherence (n=2). Almost all informants cited counselling on benefits and risks of breastfeeding in HIV context as the most important determinant of adherence (n=7). They further mentioned understanding that exclusive breastfeeding reduces MTCT of HIV helped mothers adhere to exclusive breastfeeding. Table 5.0 illustrates detailed social determinants.

Cultural characteristics: Similar to service characteristics, multiple logistic regression did not find cultural characteristics significant determinants of adherence. From In-depth Interviews, culture was brought out as a major determinant. Almost all nurses (n=6), mentioned non status disclosure as a determinant. Overall, status disclosure was 82.5% (n=382; OR: 0.80; CI: 0.37, 1.72). Non breastfeeding signifies that a mother is HIV positive. Some mothers, therefore, opted to breastfeed to avoid stigma (n=3). Culturally, every mother was expected to breastfeed (n=2). Focus Group Discussions and In-depth Interviews revealed that non adherence maybe due to fear of MTCT of HIV through breast milk and teething. Others were baby's negative status; health workers advice on breastfeeding cessation once infant tests negative, ability to afford Replacement feeding with formula, breast conditions and traditional influence from mothers-in-law.

DISCUSSION

Findings revealed that three quarters of respondents adhered to exclusive breastfeeding. Being married, not suffering from breast related conditions and having incomes less than $125 emerged as major determinants. Adherence was highly marked in the older aged group and those with secondary and or beyond level of education. There was no difference in terms of adherence regarding being married and respondent's age, not suffering from breast related conditions and level of education. High adherence among married respondents irrespective of age, suggests the importance of social support in determining adherence. The finding that those without breast related condition regardless of the educational level and those with incomes below $125 were more likely to report adherence than their counterparts, suggests that understanding of the reduced risk of MTCT transmission of HIV to the

baby in the absence of breast related conditions and adequate finances to exclusively formula feed for first six months of the baby's life, could have promoted adherence. Breast related conditions and mixed feeding could increase chances of HIV transmission from mother to child.

It is possible that design associated dynamics and recall bias could have led to an over estimation of adherence prevalence. This is especially for respondents with infants above six months of age in which timing of introduction of liquid and solid feeds could not have been accurately recalled. Non randomisation of study elements could have introduced confounding, but logistic regression was employed to control for this. However, we are convinced that low socio-economic status, educational level and nutrition education on IYCF in HIV context could have determined adherence.

The overall adherence level of 74.0% approximates well with national estimate of about 61% [4]. This observed adherence level could be associated with being married, not suffering from breast related conditions, nutrition education and individualised counselling on IYCF in HIV context resulting in improved feeding practices.

The finding that married women were more likely to report adherence compared to single mothers observed in this study is in agreement [7]. The study by Doherty et. al. found that 'women who maintained exclusive breastfeeding from birth to four or six weeks, majority had support from a partner.' It is convincing that support from a partner is important in determining adherence. This is further strengthened by the current study finding that even after stratification of marital status by age, it was observed that being married determined adherence irrespective of age. Current findings also revealed an association between low income levels, being older or higher educational status and reporting adherence. This entails that being older and high educational status are important determinants of adherence.

Mothers without breast conditions regardless of educational level were more likely to report adherence than those with breast conditions. It is convincing that regardless of educational level, mothers without breast conditions are more likely to adhere to exclusive breastfeeding. This may result from an understanding that transmission of HIV to the infant through breastfeeding maybe reduced. Breast conditions may facilitate MTCT of HIV through breastmilk.

Affordability aspect of AFASS was a major determinant during Focus Group Discussions and In-depth Interviews. It is not surprising the fact that forty tins of 500g formula with an estimated cost of $250 are required to sustain exclusive breastfeeding (WHO 2006; MOH & NFNC 2008). Exclusive breastfeeding is important in HIV context as a strategy for child survival.

Higher educational and low income levels were associated with reporting adherence compared to lower educational and higher income levels (Table 4.0). This was complemented by qualitative findings in which mothers who received nutrition education and counselling on mixed feeding as route of MTCT of HIV and benefits and risks of breastfeeding in HIV context were able to report adherence (Table 5.0). This shows that higher education is not the only determinant, but also specific nutrition education.

It is surprising that initiating breastfeeding within first hour of birth did not emerge a determinant. This is in disagreement with other findings that related early breastfeeding initiation with successful exclusive breastfeeding irrespective of socio-cultural settings [2].

None of cultural multivariate results emerged significant (Table 2.0). From qualitative results, culture was brought out as a determinant in context of non-status disclosure due to fear of divorce or losing a stable relationship. Fear of stigma when not breastfeeding was another determinant. Breastfeeding is a recognised cultural norm. Avoiding breastfeeding creates suspicion that a mother is HIV positive.

High status disclosure in this study is a positive finding despite not being significant. The finding that mothers-in-law influence their daughters-in-laws' feeding practices is worrying as this may undermine full benefits of exclusive breastfeeding for both mother and infant.

However, the finding is in harmony with a study in Northern Tanzania that examined infant feeding experiences of HIV-positive mothers in which 13 women who chose exclusive breastfeeding had not disclosed their status. Fear of status disclosure was

among major concerns influencing adherence, as was the cultural position of breastfeeding as the only acceptable infant feeding method [7,13]. Non-disclosure in relation to exclusive breastfeeding may not be a positive aspect as it may result in mixed feeding. Mixed feeding increases the chances of MTCT of HIV.

Multivariate results regarding service characteristics did not come out significant (Table 3.0 and 4.0), but qualitative results showed that service factors particularly counselling on benefits of exclusive breastfeeding and nutrition education enabled mothers to adhere. This finding is in accordance with that of the population council (2003). Counselling to improve exclusive breastfeeding practices enabled achievement of a higher rate of exclusive breastfeeding than previously reported in similar communities.

There were varied views among health workers regarding information provision. This finding is in agreement [7], in which some mothers were encouraged to breastfeed exclusively by a certain group of health workers while others were hindered by another. In this study, advice against exclusive breastfeeding was associated with helping mothers to avoid MTCT of HIV through breast milk especially when infant's test result was negative or infant was teething.

Findings showed that increased uptake of exclusive breastfeeding was associated with proper counselling and nutrition education through which mothers were made to understand benefits of exclusive breastfeeding. The finding that more educated mothers were more likely to report adherence is at variance [9]. [9] Study found that higher educational level was associated with a higher rate of exclusive replacement feeding.

CONCLUSION AND RECOMMENDATIONS

We conclude that being married and not suffering from breast conditions irrespective of age and educational level determined adherence to exclusive breastfeeding. The findings that being married, not suffering from breast conditions, inability to afford exclusive breastfeeding, understanding benefits of exclusive breastfeeding in HIV context have both immediate and long term implications which in the long term could save lives if adjusted. Provision of mixed messages by health workers also has implications on WHO's recommendation to promote, protect and support breastfeeding. Mixed messages may result in mixed feeding or complete breastfeeding cessation for infants who may benefit from the protective benefits of exclusive breastfeeding against various infections. Mothers may be influenced to feed inappropriately by mothers-in-law depending on accuracy of their information. Recall bias resulting from cross-sectional design could not have explained results given the low proportion of respondents with infants aged six months and above, but promotive efforts.

Given higher adherence among married respondents; those who did not suffer from breast conditions and those who received counselling and nutrition education regarding feeding in HIV context, we suggest strengthening of social support systems related to male involvement and mother support systems. We further suggest, strengthening of health workers' counselling skills regarding the topic and also nutrition education. Implications of results for practice are that information could be used for targeted interventions aimed at promoting exclusive breastfeeding. A prospective study involving follow-up of women at different stages is needed. Other studies should also investigate whether the understanding that women on HAART or babies who take ART have reduced chances of MTCT of HIV to babies influences adherence to the exclusive breastfeeding option.

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Table 1.0: *Description of sample by socio-demographic characteristics*

Socio -demographic characteristics:		Frequency	Percent
Age of mother (years):	18	18	4.5
	20-24	97	24.3
	25-29	135	33.8
	30-34	104	26.0
	35-39	35	8.8
	40-44	11	2.8
	Total	**400**	**100**
Mea n age:	27.9		
Standard deviation:	5.307		
Mothers by infants age (months):	0-5	294	73.5
	6-11	97	24.3
	12 +	9	2.3
	Total	**400**	**100**
Socio -demographic characteristics		**Frequency**	**Percent**
Marital status:	Single	32	8.0
	Married	337	84.3
	Divorce d/Separated	16	4.0
	Widowed	15	3.8
	Total	**400**	**100**
Educational level:	None	19	4.8
	Primary	209	52.3
	Junior Secondary	107	26.8
	Senior Secondary	56	14.0
	Tertiary	9	2.3
	Total	**400**	**100**
Occupational status:	Unemployed	268	67.0
	Employed	32	8.0
	Self employed	100	25.0
	Total	**400**	**100**
Income levels:	K0 -600,000.00 (low)	284	71.0
	K600,001 -1,200,000 (Medium1)	64	16.0
	K1,200,001 -5,200,000 (Medium2)	17	4.3
	Above K5,200,000 (High)	7	1.8
	Don't Know	28	7.0
	Total	**400**	**100.0**

Table 2.0: *Prevalence of adherence to the exclusive breastfeeding option by infant's age category*

Age category		Adherence to EBF Option among HIV Mothers		
		%		N
Below 6 months:		76.4		226
6 months and above:		23.6		70
Total :		**100**		**296**

Table 3.0: *Determinants of adherence and type of health centre, age of mother, marital status, income levels, counselling in the context of HIV, status disclosure, experiencing stigma and time of breastfeeding initiation*

Characteristics		Prevalence	Crude	P-value	Adjusted	P-value
		% (n)	OR (95% CI)		OR (95% CI)	
Residence:	Medium	26.5 (106)	1		1	
	High	73.5 (294)	**1.70 (1.05, 2.77)**	**0.03**	1.14 (0.61, 2.14)	0.676
Mother's age (yrs):	30-44	37.5 (150)	1		**1**	
	18-29	62.5 (250)	1.72 (1.09, 2.70)	**0.019**	1.32 (0.76, 2.30)	0.312
Marital Status:	Single	15.8 (63)	1		1	
	Married	84.3 (337)	2.74(1. 57, 4.80)	**<0.001**	**2.88 (1.45, 5.71)**	**0.002**
Income levels:	Above K600,000	23.7 (88)	1		1	
	Below K600,000	76.3 (284)	1.67 (0.99, 2.81)	0.051	1.36 (0.71, 2.62)	0.346
Counselled:	No	14.0 (56)	1		1	
	Yes	86.0 (344)	1.72 (0.94, 3.13)	0.076	1.50 (0.71, 3.20)	0.284
Status disclosure:	No	17.5 (70)	1		1	
	Yes	82.5 (382)	0.47 (0.23, 0.94)	**0.034**	0.80 (0.37, 1.72)	0.580
Experienced stigma:	Yes	4.5 (18)	1		1	
	No	95.4 (382)	3.83 (1.46, 9.98)	**0.006**	2.27 (0.70, 7.27)	0.167
Breast condition:	Yes	5.8 (23)	1		1	
	No	94.3 (377)	**4.96 (2.07, 11.8)**	**<0.001**	**5.34 (2.08, 13.7)**	**<0.001**
Time of breastfeeding initiation:	After 1 hour	17.4 (65)	1		1	
	Within 1 hour	82.6 (309)	**2.02 (1.11, 3.65)**	**0.020**	1.17 (0.58, 2.36)	0.654

Note: n=400; variables entered in the model: type of health centre by density; marital status; income levels; counselled or not; status disclosure; experienced negative culture; suffered some breast condition; time of breastfeeding initiation following delivery and age of mother. There was interaction between educational level and mother's age.

Table 4.0: *Determinants of Adjusted OR of adherence for marital status, income level, counsel received or not and suffered some form of breast condition or not by age and educational level*

Age	Characteristics		Prev.	A OR (95% CI)	P-value	Age	AOR (95% CI)	P-value
18-29			**% (n)**			**30-44**		
	Marital status:	Single	15.8 (63)	1			**1**	
		Married	84.3. (337)	**3.28 (1.44, 7.45)**	**0.004**		**2.77 (1.03, 7.41)**	**0.042**
	Income:	Above K600,000	23.7 (88)	1			**1**	
		Below K600,000	76.3 (284)	1.40 (0.66, 2.98)	0.378		**2.71 (1.20, 6.15)**	**0.017**
	Counselled:	No	14.0 (56)	1			**1**	
		Yes	86.0 (344)	2.29 (0.94, 5.54)	0.065		0.85 (0.28, 2.53)	0.779
	Breast condition:	Yes	5.8 (23)	1			**1**	
		No	94.3 (377)	2.28 (0.50, 10.3)	0.285		**6.28 (1.74, 2 2.6)**	**0.005**
Ed. Level	**Characteristics:**					**Ed. level**		
Pri. & below	**Marital status:**	Single	15.8 (63)	1		**Sec. & above**	**1**	
		Married	84.3. (337)	2.06(0.83, 5.08)	0.115		**4.41 (1.76, 11.0)**	**0.002**
	Income:	Above K600,000	23.7 (88)	1			**1**	
		Below K600,000	76.3 (284)	1.37(0.57, 3.27)	0.474		**2.44(1.14, 5.23)**	**0.021**
	Counselled:	No	14.0 (56)	1			**1**	
		Yes	86.0 (344)	2.11 (0.90, 4.94)	0.085		0.99 (0.31, 3.12)	0.991
	Breast condition:	Yes	5.8 (23)	1			**1**	
		No	94.3 (377)	**5.64(1.48, 21 .5)**	**0.011**		**3.72 (1.01, 13.6)**	**0.048**