

Original Research Article

An assessment of health facility factors influencing male participation in utilization of antenatal care services among spouses in selected manufacturing industries in Nairobi County, Kenya

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ABSTRACT

Background: Male participation in utilization of reproductive health is likely to promote timely and proper antenatal care, encourage women to deliver under the care of a skilled attendant, and also help identify and seek health care in cases of post-partum complications. However, in most African societies, pregnancy, delivery and postnatal services has been erroneously classified as purely feminine issue by the society.

Methods: A cross-sectional descriptive study design was adopted for the study. The target population of the study comprised of males above 18 years working in selected manufacturing industries in the area of Babadogo located in Nairobi County, Kenya. The sample size for the study was 266 respondents. Structured questionnaires were used for data collection. Data collected was quantitatively analysed using Statistical Package for Social Sciences (SPSS).

Results: 56.0% (145) of the respondents had accompanied their partner to antenatal care facilities; 34.0% (88) of the respondents had ever participated in ANC services. Chi-square test statistics showed that distance to the nearest health facility ($\chi^2=7.472$ df=3, $p=0.024$), cost of accessing ANC services ($\chi^2=26.253$ df=4, $p=0.001$), attitude of healthcare providers ($\chi^2=31.705$ df=3, $p=0.001$) and friendliness of the waiting bay ($\chi^2=9.718$ df=2, $p=0.008$) significantly influenced male participation in antenatal care services' utilization among spouses.

Conclusions: Despite majority of men accompanying their wives to antenatal care facilities, most of them did not participate in the antenatal care services. Another conclusion is that facility factors such as distance, cost, health care providers' attitude, and waiting bay friendliness influence male participation in utilization of antenatal care services.

Keywords: Antenatal care, Factors, Health facility, Utilization

INTRODUCTION

Male contribution in maternal health services has been portrayed as a process of social and behavioral change that is required for men to assume progressively dependable responsibility for a woman in her entire period of pregnancy until she delivers. Male involvement in antenatal care (ANC) received global attention at the International Conference on Population and Development (ICPD) in Cairo 1994 and at the fourth conference of

women in Beijing 1995. Both conferences advocated for active participation by men in maternal health services. The idea of male involvement in maternal wellbeing is currently being upheld as a basic component of World Health Organization (WHO) activity for making pregnancy more secure.¹ An investigation done in India found that most women whose spouses were involved in ANC, their wives delivered under a skilled health provider in a health facility compared with women whose partners were not involved.²

In sub-Saharan Africa where there is high burden of maternal and child mortality, there is an increasing number of initiatives and programmatic efforts to come up with strategies that encourage men involvement in safe motherhood.³ In Malawi and Uganda women who were accompanied by their spouses were given first priority in service provision as a strategy to encourage and support male participation in utilization of ANC services.⁴

Though ANC attendance in Kenya has been high at 96%, the proportion of births attended by skilled health personnel was 62%.⁵ The World Health Organization revealed maternal mortality ratio in developing nations in 2015 was 239 for every 100,000 live births versus 12 for every 100,000 live births in developed nations.⁶ In Kenya Maternal mortality ratio was 362 for each 100,000 live births.⁵ Lessening maternal mortality rate (MMR) globally to less than 70 per 100,000 births as recommended in sustainable development goal (SDG) in Kenya will take the inclusion of men. Therefore, the objective of this study was to assess the facility factors influencing male participation in ANC services among male laborers in selected manufacturing industries in Nairobi County, Kenya.

Problem statement

Men heavily influence decisions regarding contraception. Male participation in utilization of reproductive health is likely to promote early and proper antenatal care, encourage women to deliver under the care of a skilled attendant and provide resources to pay for the services and also help identify and seek health care in cases of post-partum complications. However, in most African societies pregnancy, delivery and postnatal services has been erroneously classified as purely feminine issue by the society despite men being key decision makers in matters regarding reproductive health.⁶ A national program report by NASCOP, on partner involvement in the antenatal clinic per regions were as follows: central 3%, western 5.3%, Nairobi 5.2%, Rift valley 4.6%, Eastern 6%, Coast 3.4%, Nyanza 6.4% and North Eastern 2.5%. Average male participation in Kenya being 5.1%.⁷

METHODS

A cross-sectional descriptive study design was adopted for the study. The target population of the study comprised of males above 18 years working in selected manufacturing industries in the area of Babadogo located in Nairobi County, Kenya. Babadogo Ward was purposively selected since it has the highest number of manufacturing industries in Nairobi Region. The sample size for the study was 266 respondents. The study used self-administered questionnaires with close and open-ended questions for collection of quantitative data. The study was conducted between October-2020 to December 2020. The selection criteria for the study involved men working in select manufacturing industries whose partners had ever delivered and had started ANC. Only

the men who consented participated in the study. Ethical considerations including anonymity, confidentiality, privacy, and informed consent were sought from the respondents. Data collected was quantitatively analyzed using Statistical Package for Social Sciences (SPSS).

RESULTS

Response rate

The study administered 266 questionnaires to male respondents in selected manufacturing industries in Nairobi City County, Kenya. Duly filled and returned questionnaires were taken into account and considered for analysis. After data checking and cleaning, 259 questionnaires were deemed fit for analysis representing a response rate of 97.37%. The response rate was more than adequate for analysis and drawing conclusions.

Socio-demographic characteristics of the respondents

Majority of the respondents were aged between 30-39 years as shown by a response of 41.7% (108). Additionally, 55.6% (144) of the respondents had secondary education as the highest level of education while majority of the respondents, 81.9% (212) were Christians.

Table 1: Respondents' profile.

Variables	Respondent response	Frequency (N)	Percentage
Age in years	≤19	19	7.3
	20-29	84	32.4
	30-39	108	41.7
	40-49	35	13.5
	≥50	13	5.0
Highest level of education attained	No formal education	11	4.2
	Primary	36	13.9
	Secondary	144	55.6
	Tertiary	68	26.3
Religion	Christian	212	81.9
	Muslim	47	18.1
Monthly income (Kshs)	<20,000	83	32.0
	20,000-30,000	97	37.4
	30,001-40,000	58	22.4
	>40,000	21	8.1
Number of children	None/pregnant	36	13.9
	1	99	38.2
	2	78	30.1
	3	26	10.0
	≥3	20	7.8
Staying with partner	Yes	203	78.4
	No	56	21.6

Source: Research Data (2020).

It was also evident that a total of 69.4% (180) of the respondents had monthly income not exceeding Kenya Shillings 30,000. Most respondents had either 1 or 2 children. Lastly, 78.4% (203) of the respondents indicated that they were staying with their partners at the time of the study (Table 1).

Male participation in antenatal care

The respondents were required to indicate their level of participation in ANC. This was captured through their response on whether they had accompanied their partners to any ANC and whether they had ever participated in ANC. From the findings, 56.0% (145) had accompanied their partner to ANC while 44.0% (114) had never accompanied their partner to ANC. The findings also demonstrate that 34.0% (88) of the respondents had ever participated in ANC and 66.0% (171) had never participated in ANC (Table 2).

Table 2: Extent of male participation in ANC.

Variables	Response	Frequency	%
Accompanied partner to ANC	Yes	145	56.0
	No	114	44.0
Ever participated in ANC services	Yes	88	34.0
	No	171	66.0

Source: Research Data (2020).

Health facility factors influencing male participation in antenatal care

The study presented facility factors where the respondents were required to indicate their nature. Slightly more than

a third 93 (35.9%) of the respondents revealed that the distance to the nearest health facility was between 1-2 kilometres followed by 67 (25.9%) whose distance was between 2-3 kilometres. Less than half 112 (43.2%) of the respondents reported it was free to access ANC services followed by 68 (26.3%) who revealed it would cost them less than Kenya Shillings 100. Regarding the attitude of healthcare workers, results revealed that 113 (43.6%) reported fair attitude followed by 57 (22.0%) who felt the attitude was good. Results showed that more than a third 97 (37.5%) of the respondents could not tell whether the waiting bay was friendly followed by 84 (32.4%) who reported that it was friendly (Table 3).

Influence of facility factors on male participation in antenatal care

Chi-square test statistics was used to test the significance of the relationship between facility factors and male participation in ANC. Results showed that there was a significant statistical association between distance to the nearest health facility and participation in ANC among the respondents ($\chi^2=7.472$ df=3, $p=0.024$). There was a significant statistical association between cost of accessing ANC services and participation in ANC ($\chi^2=26.253$ df=4, $p=0.001$). A significant statistical association existed between attitude of healthcare providers and participation in ANC service ($\chi^2=31.705$ df=3, $p=0.001$). Lastly, there was a significant statistical association between waiting bay being friendly and participation in ANC service ($\chi^2=9.718$ df=2, $p=0.008$). However, there was no statistical association between being given priority of being served first when accompanying wife and participation in ANC service ($\chi^2=11.533$ df=2, $p=0.065$) (Table 4).

Table 3: Health facility factors.

Variables	Response	Frequency	%
Distance to the nearest health facility	Less than 1 kilometer	52	20.1
	1 to 2 kilometers	93	35.9
	2 to 3 kilometers	67	25.9
	More than 3 kilometers	47	18.1
Cost of accessing ANC services	Free	112	43.2
	Less than 100	68	26.3
	100 to 200	36	13.9
	201 to 300	27	10.4
	More than 300	16	6.2
Attitude of health care workers	Good	57	22.0
	Fair	113	43.6
	Poor	52	20.1
	Cannot tell	37	14.3
Friendliness of waiting bay in ANC clinic	Yes	84	32.4
	No	78	30.1
	Cannot tell	97	37.5
Friendliness of waiting bay in ANC clinic	Yes	68	26.3
	No	21	8.1
	Cannot tell	170	65.6

Source: Research Data (2020).

Table 4: Chi-square test results on the significance of facility factors.

Independent variables	Respondent response	Dependent variable (male participation in ANC)		Statistical significance
		Yes (%) (n=88)	No (%) (n=171)	
Distance to the nearest health facility	<1 km	19 (21.6)	33 (19.3)	$\chi^2=7.472$ df=3 p=0.024
	1-2 km	32 (36.4)	61 (35.7)	
	2-3 km	25 (28.4)	42 (24.5)	
	> 3 km	12 (13.6)	35 (20.5)	
Cost of accessing ANC services (Kshs)	Free	40 (45.4)	72 (42.1)	$\chi^2=26.253$ df=4 p=0.001
	<100	16 (18.2)	52 (30.4)	
	100-200	5 (5.7)	31 (18.1)	
	201-300	16 (18.2)	11 (6.4)	
	>300	11 (12.5)	5 (2.9)	
Attitude of healthcare providers	Good	37 (42.0)	20 (11.7)	$\chi^2=31.705$ df=3 p=0.001
	Fair	30 (34.1)	83 (48.5)	
	Poor	11(12.5)	41 (24.0)	
	Cannot tell	10 (11.4)	27 (15.8)	
Waiting bay is friendly	Yes	36 (40.9)	48 (28.1)	$\chi^2=9.718$ df=2 p=0.008
	No	27 (30.7)	51 (29.8)	
	Cannot tell	25 (28.4)	72 (42.1)	
Given priority of being served first when accompanying wife to ANC	Yes	46 (52.3)	22 (12.9)	$\chi^2=11.533$ df=2 p=0.065
	No	5 (5.7)	16 (9.3)	
	Cannot tell	37 (42.0)	133 (77.8)	

Source: Research Data (2020).

DISCUSSION

From the findings, majority of the respondents had accompanied their wives to ANC. This can be explained by the fact that the study was conducted in an urban area where people are more informed on the importance of counselling of couples when their partners are expectant. These findings agree with a similar study conducted in Masasi District of Tanzania on perception of male involvement in pregnancy and childbirth. The study in Tanzania reported that most men accompanied their partners during the first ANC visit especially to test for HIV/AIDS.⁸ However, the findings contradicted who conducted a study on involvement of male in ANC, birth preparedness and complication readiness and associated factors in Ambo Town, Ethiopia which revealed that it's unthinkable to find men accompanying their wives/partners to ANC.⁹

The study also sought to establish the proportion of men who had participated in ANC services. The findings revealed that majority of the respondents did not participate in ANC despite majority of the respondents accompanying their wives to ANC. This means that men accompany their wives/partners to ANC just to give them moral support and not participating in the services provided. The results concurs with a Zambian study done on men's perspectives on male participation in ANC with their pregnant wives in Lusaka which revealed that low participation in ANC would deprive the wives the privacy needed during physical examination.¹⁰ Consistent with these results is another study on determinants of male

partner involvement in ANC in Wakiso District in Uganda which revealed that only 6% of male respondents participated in ANC services.¹¹

On the significance of the facility factors, the study revealed that distance to the nearest health facility had a significant influence to male participation in ANC. This finding agree with Nyandieka et al who conducted a study in Malindi Sub-County in Kenya on male involvement in maternal health planning as a key to utilization of skilled birth services, and found that distance to the nearest health facility together with unevenly distributed facilities and poor road network negatively affected male participation in maternal health service utilization.¹² The findings also agree with a study conducted by Sinha et al in India, on male involvement and utilization of maternal health services, and found that distance was one of the factors that affected male partner participation in utilization of maternal health services.¹³

The findings of the study also found that cost significantly influenced male participation in utilization of ANC. These findings support a study by Yende et al who found that men suffer opportunity cost of lost wages whenever they escort their partners to seek maternal health services.¹⁴ Another study by Kariuki et al conducted in Uganda on determinants of male partner involvement in ANC found that cost of ANC influenced male partner involvement in ANC.¹⁵ From the findings, there was also a statistically significant association between attitude of healthcare providers and participation in ANC service. This is because when men perceive

attitude of care providers to positive they are more likely to influence male partners in participating in maternal health services even if they are not free as shown by study results from Ghana.¹⁶ The findings that there was a significant association between friendliness of the waiting bay and male partner participation in utilization of ANC supports Odhiambo et al who conducted a study in Suba Sub-County, Kenya who found that male partners sat in their cars for prolonged hours waiting for their partners to be served in the waiting due to how unfriendly the waiting bays were especially in public health facilities.¹⁷ Lastly, the study found that there was no significant relationship between priority of service for male accompanied partners and participation of ANC by men. This is inconsistent with findings by Muloongo et al who conducted a study on perception of men on male participation in ANC in Zambia, where it was demonstrated that first priority was given to couples attending ANC. However, a study conducted in Uganda by Kayongo et al found that giving couples priority for ANC did not improve male participation in ANC.

The study faced limitations such as negative perceptions from religion and traditional beliefs on men involvement in ANC services. Due to retrogressive traditional beliefs, most men were reluctant in participating in the study for fear of stigmatization as a result of participating in an issue that is perceived to belong to women. To counter this limitation, the researchers assured the respondents of their privacy, confidentiality and anonymity. The respondents were assured that no information whatsoever would be disclosed to third parties.

CONCLUSION

From the findings of the study, it can be concluded that majority of the men accompanied their wives to ANC clinic. Despite accompanying their wives to ANC clinics, it can be concluded that men do not participate in the services provided in ANC clinics. From the Chi-square test statistics, it can be concluded that distance to the health facilities, attitude of health care providers, friendliness of the waiting bay, and cost of accessing ANC services significantly influence male participation in utilization of ANC services.

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REFERENCES

1. Manda-Taylor L, Mwale D, Phiri T, Walsh A, Matthews A, Brugha R, et al. Changing times? Gender roles and relationships in maternal, newborn and child health in Malawi. *BMC Pregnancy Childbirth*. 2017;17(1):1-3.
2. Yadufashije D, Sangano GB, Samuel R. Barriers to antenatal care services seeking in Africa. George Bahati and Samuel, Rebero, Barriers to Antenatal Care Services Seeking in Africa (September 8, 2017); 2017.
3. Yargawa J, Leonardi-Bee J. Male involvement and maternal health outcomes: systematic review and meta-analysis. *J Epidemiol Community Health*. 2015;69(6):604-12.
4. Atuahene MD, Arde-Acquah S, Atuahene NF, Adjui M, Ganle JK. Inclusion of men in maternal and safe motherhood services in inner-city communities in Ghana: evidence from a descriptive cross-sectional survey. *BMC Pregnancy Childbirth*. 2017;17(1):1-10.
5. Kenya National Bureau of Statistics. 2014 Kenya Demographic and Health Survey. KNBS (2014). Available at: <https://dhsprogram.com/pubs/pdf/fr308/fr308.pdf>. Accessed on 22 December 2020.
6. World Health Organization. Health in 2015: from MDGs, millennium development goals to SDGs, sustainable development goals. WHO (2015). Available at: <https://www.who.int/data/gho/publications/mdgs-sdgs>. Accessed on 22 December 2020.
7. Aluisio AR, Bosire R, Betz B, Gatuguta A, Kiarie JN, Nduati R, et al. Male partner participation in antenatal clinic services is associated with improved HIV-free survival among infants in Nairobi, Kenya: a prospective cohort study. *J Acquired Immune Deficiency Syndromes*. 2016;73(2):169.
8. Maluka SO, Peneza AK. Perceptions on male involvement in pregnancy and childbirth in Masasi District, Tanzania: a qualitative study. *Reprod Health*. 2018;15(1):1-7.
9. Demissie DB, Bulto GA, Terfassa TG. Involvement of male in antenatal care, birth preparedness and complication readiness and associated factors in Ambo town, Ethiopia. *J Health Med Nurs*. 2016;27(5):14-23.
10. Muloongo H, Sitali D, Zulu JM, Hazemba AN, Mweemba O. Men's perspectives on male participation in antenatal care with their pregnant wives: a case of a military hospital in Lusaka, Zambia. *BMC Health Serv Res*. 2019;19(1):1-9.
11. Kariuki KF, Seruwagi GK. Determinants of male partner involvement in antenatal care in wakiso district, Uganda. *J Adv Med Med Res*. 2016:1-5.
12. Nyandieka LN, Njeru MK, Ng'Ang'A Z, Echoka E, Kombe Y. Male involvement in maternal health planning key to utilization of skilled birth services in Malindi Subcounty, Kenya. *Adv Public Health*. 2016;2016.
13. Sinha KC. Male involvement and utilization of maternal health services in India. *Int J Sci Res Publ*. 2016;4(11):1-3.
14. Yende N, Van Rie A, West NS, Bassett J, Schwartz SR. Acceptability and preferences among men and women for male involvement in antenatal care. *J Pregnancy*. 2017;2017.

15. Kariuki KF, Seruwagi GK. Determinants of male partner involvement in antenatal care in wakiso district, Uganda. *J Adv Med Med Res.* 2016:1-5.
16. Yidana A, Ziblim SD, Yamusah B. Male partner involvement in birth preparedness and utilization of antenatal care services: a study in the West Mamprusi municipality of northern Ghana. *World J Public Health.* 2018;3(3):69.
17. Odhiambo NO. Assessing men's knowledge and perceptions of male involvement in maternal and child health services and their influence on clinic attendance in Suba sub county, Kenya. 2018.
18. Kayongo CX, Miller AN. Men's response to Obulamu Campaign messages about male involvement in maternal health: Mukono District, Uganda. *Health Commun.* 2019;34(13):1533-42.

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